Appendix G
Analytical Data QA/QC Report

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List of Acronyms

ADR	automated data review
AR/COC	Analysis Request/Chain of Custody
bgs	below ground surface
CCB	continuing calibration blank
CCV	continuing calibration verification
CFR	Code of Federal Regulations
CLP	Contract Laboratory Program
DAF	Dilution Attenuation Factor
DQO	data quality objectives
EPA	U.S. Environmental Protection Agency
FUDS	Formerly Used Defense Sites
GPL	GPL Laboratories, LLLP
HMX	octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
ICAL	initial calibration
ICB	initial calibration blank
ICV	initial calibration verification
ID	identification
LCS	laboratory control sample
LCSD	laboratory control sample duplicate
LC/MS	liquid chromatography/mass spectroscopy
MC	munitions constituents
MCL	maximum contaminant level
MDL	method detection limit
MEC	munitions and explosives of concern
MMRP	Military Munitions Response Program
MS	matrix spike
MSD	matrix spike duplicate
NWO	Omaha District Military Munitions Design Center
ODEQ	Oregon Department of Environmental Quality
PAHs	polycyclic aromatic hydrocarbons
PETN	pentaerythritol tetranitrate
PQL	practical quantitation limits
PRG	preliminary remediation goal

PSAP	program sampling and analysis plan
QA/QC	quality assurance/quality control
RDX	hexahydro-1,3,5-trinitro-1,3,5-triazine
RL	reporting limit
RPD	relative percent difference
RRF	relative response factor
RSD	relative standard deviation
SDG	sample delivery group
Shaw	Shaw Environmental, Inc.
SI	site inspection
SOPs	standard operating procedures
SSL	soil screening level
SS-WP	site specific-work plan
Tetryl	methyl-2,4,6-trinitrophenylnitramine
USACE	U.S. Army Corps of Engineers

G.1.0 Introduction

This appendix presents the Analytical Data QA/QC Report for Camp Adair Site Inspection (SI). This report will discuss results of the quality assurance/quality control (QA/QC) measures implemented during the sampling and analysis portion of the SI at Camp Adair, located approximately 9 miles north of Corvallis, Oregon, in Polk, Benton, and Linn Counties under the Formerly Used Defense Site (FUDS), Military Munitions Response Program (MMRP). The quality indicators from every aspect of the data collection have been reviewed, and an assessment of the data with regard to project-specific objectives is presented. Successful execution of project-specific objectives and procedures provides strong support for the acceptance of the data as adequate for the purpose of evaluating site conditions at Camp Adair and the presence of munitions and explosives of concern (MEC) or munitions constituents (MC).

The data review process presented in this report compares sample results to pre-established criteria to confirm that the data are of acceptable technical quality. One-hundred percent of the analytical data have been reviewed and validation qualifiers assigned based on U.S. Environmental Protection Agency (EPA) Contract Laboratory Program (CLP) *National Functional Guidelines for Organic Data Review*, October 1999 and EPA CLP *National Functional Guidelines for Inorganic Data Review*, October 2004. Automated Data Review (ADR) software (version 8.1) was used to assist in the data validation process for all areas with the exception of initial calibration blanks (ICB) / continuing calibration blanks (CCB), interference check standards, internal standards, serial dilutions, and second-column confirmation. Data were evaluated against specific criteria to verify the achievement of all precision, accuracy, representativeness, completeness, comparability, and sensitivity goals established to meet the project data quality objectives (DQO). To verify that these DQOs were met, field measurements, sampling and handling procedures, laboratory analysis and reporting, and all nonconformances and discrepancies in the data were examined to determine compliance with the appropriate and applicable procedures. The results of this review are presented in the following sections, with all outliers or nonconformances discussed where they occurred.

This report is divided into three subsections. Section G.2.0 discusses the overall field investigation and QC procedures used by Shaw Environmental, Inc. (Shaw) during the sampling effort. Section G.3.0 outlines the analytical program and the associated QC activities as specified in Shaw's Camp Adair Site-Specific Work Plan (SS-WP) and in Shaw's FUDS MMRP Program Sampling and Analysis Plan (PSAP) Addendum, (Shaw, 2005). The final part of this document, Section G.4.0, summarizes the data findings and their overall impact on the usability of the analytical data.

G.2.0 Field Sampling and QC Activities

Shaw is responsible for conducting the SI at Camp Adair, which is located in the northwest region, under the MMRP Contract No W912DY-04-D-0010, Delivery Order 003 managed by the Omaha District Military Munitions Design Center (NWO). Field activities at this site included the collection of soil samples from fifty-one surface locations, sediment samples from fourteen locations, and groundwater samples from twelve locations. Soil, sediment and groundwater samples were submitted to the laboratory with requested analyses of selected metals by SW-846 6020A/7470A/SW7471A (soil digestion method 3050B; aqueous digestion method 3010A), polycyclic aromatic hydrocarbons (PAHs) by SW-846 8270C (Low Level), explosives by SW-846 8330A, nitroglycerine by SW-846 8330A (Modified), pentaerythritol tetranitrate (PETN) by SW-846 8330A (Modified), and perchlorate by liquid chromatography/mass spectroscopy (LC/MS). It should be noted Shaw was directed by USACE to remove all references to method SW-846 6850 for the analysis of perchlorate. Perchlorate was analyzed by DataChem Laboratories, Inc. employing their internal standard operating procedure (SOP) number LCMS-CLO4-Rev2, *"Determination of Perchlorate in Water, Soil, and Biota by LC/MS"*. This analytical method meets the requirements referenced in Appendix G of the Department of Defense Perchlorate Handbook (March 2006). Table G-1 summarizes the location identification (ID), the sample identity or number, sample purpose, sample matrix, date of collection, GPL Laboratories, LLLP (GPL) sample delivery group (SDG) identity, and the analytical program for each sample collected for the Camp Adair SI.

Sample shipments from the field were performed under custody and documented using standard GPL Analysis Request/Chain of Custody (AR/COC) forms. These forms provide project-specific analytical specifications and QC instructions to the laboratory. The following amendments were made to the original AR/COCs associated with the Camp Adair SI:

SDG	Amendment	Affected Samples	Reason for Amendment
608163	Analyze samples for full TAL list metals plus strontium and titanium	NWO-017-5008 NWO-017-5009 NWO-017-5010 NWO-017-5011	Additional metals required for background study calculations.
	AR/COC was amended to reflect sample NWO-017-5012 was shipped to GPL on 8/28/06	NWO-017-5012	To correct transcription error on AR/COC submitted on 8/28/06
	Analyze sample NWO-017-1005 for explosives by SW-846 8330A, PETN by SW-846 8330A (Modified) and Nitroglycerine by SW-846 8330A (Modified)	NWO-017-1005	Additional analyses required to meet Camp Adair SS-WP sample requirements

SDG	Amendment	Affected Samples	Reason for Amendment
608163 (Continued)	Analyze sample NWO-017-1006 for Camp Adair Select Metals List by SW-846 6020A / SW-846 7471A	NWO-017-1006	Additional analyses required to meet Camp Adair SS-WP sample requirements
	Amend sample ID NWO-017-0033 collected on 8/24/06 at 1940 to sample ID NWO-017-0029	NWO-017-0029	To correct transcription error on AR/COC no. NWO017-001.
608187	Sample NWO-017-0037 collected on 8/28/06 at 1530 was deleted on AR/COC No. NWO017-008	NWO-017-0037	Correct collection data and time for sample NWO-017-0037 is 8/29/06 at 1335 referenced on AR/COC submitted on 8/30/06
609019	Amend sample ID for samples NWO-017-002, NWO-017-003, and NWO-017-005 to NWO-017-0002, NWO-017-0003, and NWO-017-0005 respectively	NWO-017-0002 NWO-017-0003 NWO-017-0005	To correct transcription error on AR/COC submitted on 9/1/06
609053	Sample ID NWO-017-0018R collected on 9/11/06 at 1150 was amended to sample ID NWO-017-0015R	NWO-017-0015R	To correct transcription error on AR/COC No. NWO017-010
	Analyze samples for full TAL list metals plus strontium and titanium	NWO-017-5002 NWO-017-5003 NWO-017-5004	Additional metals required for background study calculations.
609054	Analyze samples for full TAL list metals plus strontium and titanium	NWO-017-5001 NWO-017-5001-MS NWO-017-5001-MSD	Additional metals required for background study calculations
609118	Analyze sample for full TAL list metals plus strontium and titanium	NWO-017-6002	Additional metals required for background comparison

G.2.1 Field Duplicates

Field duplicate samples are collected and submitted "blind" to the laboratory for analysis along with their corresponding parent sample. The data generated from the analysis of field duplicate samples are used to evaluate the precision of the sample collection and analysis procedures. Field duplicate samples are collected at a frequency of approximately one for every ten samples collected (10 percent) per matrix. A high relative percent difference (RPD) value between a parent sample's result and its corresponding field duplicate's result may be attributed to the difference in sample matrix or distribution of the constituent within the sample, rather than the lack of precision of the collection process. Also, when estimated results are reported, there is a potential for increased variability between the parent and duplicate sample results. At low concentrations the relative difference in results is magnified by the RPD calculation even though the results are comparable in absolute terms. There is also increased uncertainty in the results as the lower limit of detection is

approached, due to decreasing analytical accuracy. RPD is calculated by using the following formula:

$$\text{RPD} = \frac{(V_1 - V_2)}{\frac{(V_1 + V_2)}{2}} \times 100$$

where:
RPD = relative percent difference
V1 = value 1; V2 = value 2

In cases where duplicates were performed and both results are less than the method detection limit (MDL) and cases where one result is greater than the MDL, and the second result is non-detect, the RPD is not calculated. In these cases where the RPD was not calculated, "NC" (not calculated) is denoted in the RPD column. Precision evaluation criteria for field duplicate comparison was established at RPD<50% for soil and sediment and RPD<30% for groundwater. Table G-2 summarizes the calculated RPDs between the parent sample results and its corresponding field duplicate results for groundwater and Table G-3 summarizes the calculated RPDs between the parent sample results and its corresponding field duplicate results for soil and sediment.

All calculated RPDs between the parent sample values and their corresponding field duplicates met the evaluation criteria with the exceptions of aluminum, iron, nickel and zinc results for samples NWO-017-3011 (parent sample) and NWO-017-3011 FD (field duplicate). Iron, nickel, and zinc results reported for samples NWO-017-3011 and NWO-017-3011 FD were qualified "J". Aluminum results for samples NWO-017-3011 and NWO-017-3011 FD were "UJ" qualified due to method blank contamination. Aluminum, iron, nickel, and zinc high RPDs are attributed to analyte results reported near their corresponding MDLs. As previously explained, these cases should not be considered to have occurred due to poor sample collection or analysis procedures.

G.2.2 USACE Split Samples

No U.S. Army Corps of Engineers (USACE) field split samples were collected during the Camp Adair SI.

G.2.3 Equipment Rinsates

Equipment rinsates are used to assess the effectiveness of the decontamination procedures used by the sampling team on reusable sampling equipment. Samples were collected using new, clean,

disposable sampling equipment (spoon or scoop and bowl) during the Camp Adair SI. Therefore, no equipment rinsate samples were collected.

G.2.4 Field Blanks

Field blanks or material blanks are collected to assess potential contamination introduced to the sample matrix in the field through sample handling procedures. Field blanks are generally prepared from the clean source water (deionized water) or the site source water used during decontamination procedures. Field blanks were not collected during the Camp Adair SI.

G.3.0 Analytical Program and QC Activities

The project QA/QC program described in the Camp Adair SS-WP and the Shaw PSAP Addendum was followed for the collection and laboratory analysis of samples. Each of the analytical methods used require that method-specific QA/QC protocols be followed during sample analysis. These protocols are a critical part of the methods employed and were followed by the laboratory during sample analysis. Specific measures included detailed record keeping procedures, instrument calibrations, and analysis of method blanks, blank spikes, matrix spikes (MS), surrogates, second-column confirmation and serial dilutions. Attachment 1 and Attachment 2 to this report contains both a summary of analytical results and a summary of analytical results greater than the MDL, respectively. These data summaries also include the assigned data validation qualifiers. Definitions of laboratory and data validation qualifiers are found in Table G-4. Data validation qualifier reason code definitions are found in Table G-5. Approved variances to Shaw's PSAP Addendum are included as Attachment 3.

G.3.1 Laboratory QA/QC Procedures

The following sections discuss a few of the QA/QC protocols required and performed by the laboratory during this SI.

G.3.1.1 Method Blanks

Method blanks were analyzed with each analytical "batch" processed on a per matrix (i.e., soil and water) basis. These blanks were carried step-wise through the same analytical procedure as the field samples including the addition of solvents, surrogate and standard spikes, and reagents as required in the analysis process. The purpose of the blank is to identify any possible contaminants that may be introduced to the sample as a result of the analytical process. During validation, the data validators evaluated all blank data associated with each sample. Data were evaluated based on EPA CLP *National Functional Guidelines for Organic Data Review* and EPA CLP *National Functional Guidelines for Inorganic Data Review* guidance documents and were qualified accordingly.

Target compounds detected in associated blanks increase the uncertainty regarding the presence of the same constituents in field samples. For a compound identified in both a blank and field sample, it must be present at a concentration of five times higher in the field sample to be considered a "hit". Common laboratory contaminants such as acetone, methylene chloride, and toluene are not assumed present until sample concentrations exceed ten times the associated blank value. GPL does not consider any metals, PAHs, or explosives as common laboratory contaminants. This is referred to as

the 5X/10X rule.

Field sample concentrations were evaluated during data validation to determine if the sample results could have been biased by the presence of any contamination measured in method blanks, ICBs and/or CCBs. The following sample results were impacted by blank contamination:

SDG	Analysis	Blank ID	Analyte(s)	Action
608156	SW7471A	CCB	Mercury	Mercury result for sample NWO-017-0028 was “U” qualified due to CCB contamination.
608158	SW7471A	CCB	Mercury	Mercury result for sample NWO-017-0045 was “U” qualified due to CCB contamination.
608187	SW7471A	BLK93733	Mercury	Mercury result for sample NWO-017-0031, NWO-017-0032, NWO-017-0033, NWO-017-0035, NWO-017-0036, NWO-017-0037, NWO-017-0038, NWO-017-1008, NWO-017-5005, NWO-017-5006, NWO-017-5007, NWO-017-5013, and NWO-017-5014 were “U” qualified due to method blank contamination.
	SW6020A	BLK93778	Chromium	Chromium result for sample NWO-017-0033 was “U” qualified due to method blank contamination.
609053	SW6020A	BLK93951	Thallium	Thallium results for samples NWO-017-5002, NWO-017-5003, and NWO-017-5004 were “U” qualified due to method blank contamination.
609054	SW6020A	BLK93951	Thallium	Thallium result for sample NWO-017-5001 was “U” qualified due to method blank contamination.
609089	SW6020A	BLK94062	Aluminum Zinc	Aluminum and zinc results for sample NWO-017-3008 were “U” qualified due to method blank contamination.
	SW6020A	CCB	Cobalt	Cobalt result for sample NWO-017-3008 was “U” qualified due to CCB contamination.
609093	SW6020A	BLK94062	Aluminum Barium Zinc	Zinc result sample NWO-017-3009 and aluminum, barium and zinc results for sample NWO-017-3010 were “U” qualified due to method blank contamination.
609118	SW6020A	BLK93940	Aluminum Barium	Aluminum results for samples NWO-017-3006, NWO-017-3007 and aluminum and barium results for sample NWO-017-6002 were “U” qualified due to method blank contamination.

G.3.1.2 Surrogate Spikes

Spiked surrogate compounds were used in the analytical program to monitor the efficiency of the sample preparation and accuracy of analysis procedures on a sample-by-sample basis for all explosive compounds. The compounds used as surrogates, and the target acceptance limits for their recovery, were those specified in Shaw’s PSAP Addendum. The limits are statistically determined

by the laboratory per the analytical method. All spiked surrogate compounds were within the project-specified limits for all analyses with the exception of 4-nitroaniline for samples NWO-017-0042 and NWO-017-0043. All explosive compounds reported for samples NWO-017-0042 and NWO-017-0043 were qualified "UJ" and may be biased low.

G.3.1.3 Internal Standards

Internal standards are known amounts of standards added to an aliquot of sample or sample extract and carried through the entire analytical procedure. Internal standards are added to all field samples, laboratory controls, and blanks in accordance with the referenced method requirements. They are used as a basis for quantitation of target analytes. Internal standard retention times and recoveries are compared against acceptance limits presented in the MMRP SI PSAP. Acceptable internal standard performance criteria ensure that method sensitivity and instrument response are stable during every analytical run. All internal standard recoveries met the established acceptance criteria.

G.3.1.4 Matrix Spikes and Laboratory Control Spikes

Two types of spikes were generally performed for all analyses: those spikes applied to the sample matrix, identified as MS, and those applied to a "blank" matrix known as a laboratory control sample (LCS). The spiked compounds are target analytes that are quantified during performance of the method. Spikes are introduced during sample preparation on an aliquot of the sample, or a blank matrix. Results of these spiked aliquots are then compared to the native concentrations of the same analytes and a recovery calculated. Recovery of the spiked compound is used as an assessment of analytical accuracy on the sample matrix analyzed. These results are useful in distinguishing sample matrix interferences from analysis interferences through a comparison of MS and blank spike recovery data. Often, MSs are performed in duplicate (as a matrix spike duplicate [MSD] or LCS duplicate [LCSD]) on prepared sample aliquots. In this manner, an assessment of precision can be quantified as the RPD of the original and duplicate spike. The target acceptance limits are presented in Shaw's PSAP Addendum.

Matrix spikes are assigned at a frequency of approximately 5%, or 1 for every 20 field samples collected. If a sample is designated for analysis as an MS/MSD, additional sample volume is provided to the laboratory. This sampling meets the collection criteria as specified in Shaw's Camp Adair SS-WP and PSAP Addendum. Five MS/MSD pairs were collected in the field and were associated with samples NWO-017-0010, NWO-017-0021, NWO-017-3005, NWO-017-1008, and NWO-017-5001. These samples correspond to sample locations 017A-011, 017A-023, 017A-030, 017A-049, and 017A-064, respectively. The laboratory selected samples NWO-017-0034 and

NWO-017-0043 for additional MS/MSD analyses. Samples NWO-017-0034 and NWO-017-0043 correspond to sample locations 017A042 and 017A056, respectively.

The MS/MSD criteria were met, with the exception of the following, which exhibited percent recoveries and/or RPDs outside QC limits:

SDG	Analysis	Sample Number	Analyte(s)	Action
608156	SW8330A	NWO-017-0022 (MS/MSD)	4-Amino-2,6-dinitrotoluene (LB) PETN (HB)	4-Amino-2,6-dinitrotoluene result reported for sample NWO-017-0022 was qualified "UJ" due to MS/MSD spike recoveries reported outside QC criteria. Reported results may be biased low. No action required for PETN; compound not detected in sample NWO-017-0022
608163	SW8330A	NWO-017-0034 (MS/MSD)	1,3,5-Trinitrobenzene (LB) 1,3-Dinitrobenzene (LB) 2,4-Dinitrotoluene (LB) 4-Amino-2,6-dinitrotoluene (LB) 2-Amino-4,6-dinitrotoluene (LB) 2-Nitrotoluene (LB)	1,3,5-Trinitrobenzene, 1,3-dinitrobenzene, 2,4-dinitrotoluene, 4-amino-2,6-dinitrotoluene, 2-amino-4,6-dinitrotoluene, and 2-Nitrotoluene results reported for sample NWO-017-0034 were qualified "UJ" due to MS/MSD spike recoveries reported outside QC criteria. Reported results may be biased low.
	SW6020A	NWO-017-0034 (MS/MSD)	Antimony (LB)	Antimony result reported for sample NWO-017-0034 was qualified "J" due to MS/MSD spike recoveries reported outside QC criteria. Reported result may be biased low.
608187	SW6020A	NWO-017-1008 (MS/MSD)	Aluminum (HB) Antimony (LB) Iron (HB) Magnesium (HB) Manganese (HB) Titanium (HB)	Antimony and titanium results reported for sample NWO-017-1008 were qualified "J" due to MS/MSD spike recoveries reported outside QC criteria. Antimony result may be biased low. Titanium result may be biased high. No action required for aluminum, iron, magnesium and manganese; sample results were 4x greater than the MS/MSD spike concentrations.
609053	SW8330A	NWO-017-0043 (MS/MSD)	1,3,5-Trinitrobenzene (LB) 2,4-Dinitrotoluene (LB) 2-Amino-4,6-Dinitrotoluene (LB) 4-Amino-2,6-Dinitrotoluene (LB) HMX (LB) Nitrobenzene (LB) RDX (LB)	1,3,5-Trinitrobenzene, 2,4-dinitrotoluene, 2-amino-4,6-dinitrotoluene, 4-amino-2,6-dinitrotoluene, HMX, nitrobenzene, and RDX results reported for sample NWO-017-0043 were qualified "J" / "UJ" due to MS/MSD spike recoveries reported outside QC criteria. Reported results may be biased low.

SDG	Analysis	Sample Number	Analyte(s)	Action
609054	SW6020A	NWO-017-5001 (MS/MSD)	Aluminum (HB) Antimony (LB) Barium (HB) Calcium (HB) Chromium (HB) Copper (HB) Iron (HB) Magnesium (HB) Manganese (HB) Molybdenum (LB) Nickel (HB) Sodium (HB) Titanium (HB) Vanadium (HB)	Antimony, barium, copper, molybdenum, nickel, and sodium results reported for sample NWO-017-5001 were "J" / "UJ" qualified due to MS/MSD spike recoveries exceeding QC criteria. Antimony and molybdenum results may be biased low. Barium, copper, nickel, and sodium results may be biased high. No action required for aluminum, calcium, chromium, iron, magnesium, manganese, titanium, and vanadium; sample results were 4x greater than the MS/MSD spike concentration.
609118	SW8330A	NWO-019-3005 (MS/MSD)	1,3,5-Trinitrobenzene (LB & RPD) 1,3-Dinitrobenzene (LB & RPD) 2,4,6-Trinitrotoluene (LB & RPD) 2,4-Dinitrotoluene (LB & RPD) 2,6-Dinitrotoluene (RPD) 2-Amino-4,6-dinitrotoluene (RPD) 4-Amino-2,6-dinitrotoluene (RPD) HMX (LB) Nitrobenzene (LB) RDX (LB) Tetryl (LB & RPD) 3-Nitrotoluene (RPD) 2-Nitrotoluene (RPD) 4-Nitrotoluene (RPD)	1,3,5-Trinitrobenzene, 1,3-dinitrobenzene, 2,4,6-trinitrotoluene, 2,4-dinitrotoluene, 2,6-dinitrotoluene, 2-amino-4,6-dinitrotoluene, 4-amino-2,6-dinitrotoluene, HMX, nitrobenzene, RDX, tetryl, 3-nitrotoluene, 2-nitrotoluene, and 4-nitrotoluene results were "J" / "UJ" qualified due to MS/MSD spike recoveries and/or RPDs exceeding QC criteria. Reported results may be biased low.

HB – high bias
LB – low bias

No significant problems were identified with the MS recoveries that caused sample results to be qualified "R" as rejected. All other MS/MSD parameters met the target acceptance criteria required as established in Shaw's PSAP Addendum.

LCS results are used to evaluate laboratory method performance in the same manner as the MS/MSD results, except the LCS is not performed on an actual field sample matrix. An LCS is prepared for each analytical batch for each parameter and matrix analyzed. All LCS recoveries met the established acceptance criteria with the following exceptions:

SDG	Analysis	Sample Number	Analyte(s)	Action
608156	SW8330A (Modified)	BKS83547 (LCS)	Nitroglycerine (LB)	Nitroglycerine results for samples NWO-017-0022, NWO-017-0023, NWO-017-0027, NWO-017-0028, NWO-017-0030, NWO-017-0046, NWO-017-1003, NWO-017-1012, and NWO-017-1013 were qualified "UJ" due to LCS spike recovery reported outside QC criteria. Reported results may be biased low.
608158	SW8330A (Modified)	BKS83547 (LCS)	Nitroglycerine (LB)	Nitroglycerine results for samples NWO-017-0044, NWO-017-0045, and NWO-017-1011 were qualified "UJ" due to LCS spike recovery reported outside QC criteria. Reported results may be biased low.
608163	SW8330A	BKS93563 (LCS)	1,3,5-Trinitrotoluene (LB)	1,3,5-Trinitrobenzene results for samples NWO-017-0024, NWO-017-0025, NWO-017-0029, NWO-017-0034, NWO-017-1002, NWO-017-1004, NWO-017-1005, NWO-017-1006, and NWO-017-1007 were qualified "UJ" due to LCS spike recovery reported outside QC criteria. Reported results may be biased low.
609053	SW8330A	BKS93813 (LCS)	1,3,5-Trinitrotoluene (LB)	1,3,5-Trinitrobenzene results for samples NWO-017-0040RR, NWO-017-0040RR-ED, NWO-017-0041, NWO-017-0042, and NWO-017-0043 were qualified "UJ" due to LCS spike recovery reported outside QC criteria. Reported results may be biased low.
609054	SW8330A	BKS93813 (LCS)	1,3,5-Trinitrotoluene (LB)	1,3,5-Trinitrobenzene results for samples NWO-017-0039R, NWO-017-0040R, NWO-017-1009R, and NWO-017-1010R were qualified "UJ" due to LCS spike recovery reported outside QC criteria. Reported results may be biased low.
609089	SW8330A	BKS93852 (LCS)	1,3,5-Trinitrotoluene (LB) HMX (LB)	1,3,5-Trinitrobenzene and HMX results for sample NWO-017-3008 were qualified "UJ" due to LCS spike recovery reported outside QC criteria. Reported results may be biased low.
609093	SW8330A	BKS93852 (LCS)	1,3,5-Trinitrotoluene (LB) HMX (LB)	1,3,5-Trinitrobenzene and HMX results for samples NWO-017-3009 and NWO-017-3010 were qualified "UJ" due to LCS spike recovery reported outside QC criteria. Reported results may be biased low.
609118	SW8330A	BKS93963 (LCS)	HMX (LB)	HMX results for samples NWO-017-3005, NWO-017-3006, NWO-017-3007, NWO-017-3011, and NWO-017-3011 FD were qualified "J" / "UJ" due to LCS spike recovery reported outside QC criteria. Reported results may be biased low.

LB – low bias

Professional judgment was applied to those target analytes whose corresponding LCS spike recoveries are greater than 10% but below the QC criteria lower limit. For detected target analytes, results are qualified "J" or estimated; for non-detected target analytes, results are qualified as "UJ" or estimated non-detect. If LCS spike recoveries grossly exceed QC criteria (LCS < 10% recovery); all associated sample results are qualified "R" or unusable. No significant problems (gross exceedances) were identified with the LCS recoveries that caused sample results to be qualified "R" as unusable. All other LCS parameters met the target acceptance criteria required as established in Shaw's PSAP Addendum.

G.3.1.5 Calibrations

Initial calibration information is verified to demonstrate that reported results are comparable to known concentrations of target compounds. A series of standard reference solutions containing all target constituents are analyzed using the type of instrumentation specified by the method. The standards are used to determine the sensitivity of the analysis and the effective analytical (i.e. linear) range for which data can be accurately reported.

High ICAL Percent Relative Standard Deviation (%RSD) indicates that a nonlinear response was obtained during the initial calibration. A low ICAL mean Relative Response Factor (RRF) indicates the compound exhibits poor response to the selected method (or detector). For all sample analyses, the ICAL correlation coefficient of > 0.995 (the industry standard) and relative standard deviation (%RSD) acceptance criteria of < 20% (the criteria for relative response factor [RRF] and %RSD are based on SW-846 Method 8000B) were met for all analyses.

All CCVs were within QC criteria with the exception of the perchlorate low-level CCV analyzed on 9/27/06. Samples NWO-017-3002, NWO-017-3008, NWO-017-3009, NWO-017-3010 and NWO-017-6001 were "UJ" qualified.

It should be noted interference check solution spike recoveries for strontium exceeded QC criteria for several SDGs. Strontium results for samples NWO-017-0024, NWO-017-0025, NWO-017-0029, NWO-017-0031, NWO-017-0032, NWO-017-0033, NWO-017-0034, NWO-017-0035, NWO-017-0036, NWO-017-0037, NWO-017-0038, NWO-017-0039R, NWO-017-0040R, NWO-017-0040RR, NWO-017-0040RR-ED, NWO-017-0041, NWO-017-0042, NWO-017-0043, NWO-017-5001, NWO-017-5002, NWO-017-5003, NWO-017-5004, NWO-017-5005, NWO-017-5006, NWO-017-5007, NWO-017-5008, NWO-017-5009, NWO-017-5010, NWO-017-5011, NWO-017-5012, NWO-017-5013, NWO-017-5014, NWO-017-1002, NWO-017-1004, NWO-017-1005, NWO-017-1006, NWO-017-1007, NWO-017-1008, NWO-017-1009R, NWO-017-1010R, NWO-

017-3005, NWO-017-3006, NWO-017-3007, NWO-017-3008, NWO-017-3009, NWO-017-3010, NWO-017-3011, NWO-017-3011 FD, NWO-017-6001, and NWO-017-6002 were “J” qualified.

G.3.1.6 Second Column Confirmation

Sample results reported from GC or HPLC methodologies (i.e., SW-846 8330A) are confirmed by using a dissimilar column or dissimilar detector. The analyte(s) must be detected by both the primary and confirmation columns or detectors in order for the analyte(s) to be confirmed as being present in the sample. Agreement or analytical precision between the two results is calculated as RPD. If the calculated RPD between the two differing columns or detectors exceeds 40%, then the result reported from the primary column is reported as estimated or "J" qualified. It should be noted at low concentrations the relative difference in results is magnified by the RPD calculation even though the results are comparable in absolute terms. There is also increased uncertainty in the results as the lower limit of detection is approached, due to decreasing analytical accuracy. Also, if analytes co-elute on the confirmation column; results reported from the primary column are qualified “J” as estimated.

Calculated RPDs between the primary and secondary columns that exceed acceptance criteria are summarized below:

SDG	Samples Affected	Compound(s)	Validation Qualifier Applied
609053	NWO-017-0041	Nitrobenzene	J
	NWO-017-0043	Nitrobenzene	J
609054	NWO-017-1009R	Nitrobenzene	J
609118	NWO-017-3005	2,4,6-Trinitrotoluene 2,4-Dinitrotoluene 2-Amino-4,6-dinitrotoluene 4-Amino-2,6-dinitrotoluene HMX	J J J J J

J = Qualifier applied to a result that is estimated.

2-Amino-4,6-dinitrotoluene and 4-amino-2,6-dinitrotoluene results for sample NWO-017-3005 were qualified “J” due to compounds co-eluting on the confirmation column.

G.3.1.7 Isotope Ratios

To confirm the presence of perchlorate for method LC/MS (DataChem Laboratories, Inc. internal SOP No. LCMS-CLO4-Rev2); the product ions at mass 83 and mass 85 are monitored and the 83/85 isotope ratio must fall between 2.2 to 3.3. The perchlorate ion is not confirmed as being present if the calculated 83/85 isotope ratio falls outside 2.2 to 3.3 criteria. DataChem Laboratories, Inc.,

GPL's subcontractor for perchlorate analyses, employs a more sensitive instrument that has been used historically for perchlorate analysis. The resulting increase in sensitivity detects a residual peak at mass 85, which is a residual fragment from the spiked internal standard. Consequently, the 83/85 isotope ratio cannot be used for positive confirmation at low levels (<0.5ug/l). In these instances, the analyst and data validator must rely on retention time, peak area and professional judgment to determine the presence of perchlorate. Perchlorate was not detected above the MDL in samples associated with the Camp Adair SI.

G.3.1.8 Serial Dilutions

For metals analyses, a serial dilution is analyzed to verify that no matrix effects are present. A percent difference is calculated between the original result and a second result calculated from a 1:4 dilution of the original sample. Acceptance criteria of < 10% for original results greater than 100x their corresponding MDL (criteria for percent difference are based on SW-846 Method 6020) were met with the following exceptions:

SDG	Sample(s) Affected	Analyte(s)	Validation Qualifier Applied
608163	NWO-017-0034	Chromium Zinc	J J
608187	NWO-017-1008	Chromium Zinc	J J
609054	NWO-017-5001	Aluminum Calcium Chromium Cobalt Iron Manganese Nickel Zinc	J J J J J J J J

J = Qualifier applied to a result that is estimated.

G.3.2 Reporting Limits

Practical quantitation limits (PQL) used for this project are those statistically determined by GPL. The analytical program executed required the use of SW-846 methods, which specify the procedure for calculating the PQLs presented. Each laboratory is required to demonstrate method performance through MDL studies for every method employed. These studies are required to be laboratory-specific so that individual laboratory variables such as equipment brands, reagent suppliers, and chemist technique are factored into the performance study. MDLs are established using controlled matrices (i.e., deionized water). The PQL calculation adjusts the limit by a predetermined mathematical factor for the analysis of actual environmental sample matrices (i.e. soil, groundwater, etc.). For purposes of clarity and consistency with respect to terminology, the term "reporting limit" (RL) has been substituted for PQL when referencing the limit of detection reported by the laboratory for each individual sample and parameter. The actual values reported have been corrected for all necessary dilutions, dryness, and interference factors as applicable based on the resulting analytical data for a sample.

MDLs, PQLs, and RLs are generally defined as follows:

- ***MDL.*** The minimum concentration of an analyte that can be determined with 99 percent confidence that the true value is greater than zero.
- ***PQL.*** The lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. The PQL is set at the lowest standard used in the ICAL or higher for each target analyte.
- ***RL.*** This number is equivalent to the PQL.

The MDL is the lower limit at which the laboratory can differentiate a measurement from background. The MDL is determined in accordance with the procedures in 40 Code of Federal Regulations (CFR) Part 136. A PQL, or RL, is the lower limit at which a measurement becomes meaningful. The PQL or RL is generally a multiple of three to five times the MDL.

Several samples had elevated reporting limits due to suspected matrix effects and complications encountered at the laboratory. The amount of solvent added during the SW8330A extraction process had to be altered in order to properly extract the explosive compounds from the soil matrix. GPL's PQLs are below the general RLs presented in the MMRP PSAP. In some cases, they are slightly higher than those listed in Shaw's PSAP Addendum. Actual sample reporting limits can be reviewed on a sample by sample basis by reviewing the data summary presented in Attachment 1. Also, a general comparison of laboratory reported results, laboratory PQLs, and laboratory MDLs to

SI screening levels are found in Tables 7, 8 and 9. Reported sample results provide sufficient sensitivity in regarding the presence of MC associated with past military activities at this site.

G.3.3 Holding Times

All laboratory results submitted for this SI have been reviewed with respect to laboratory adherence to extraction and analysis holding times. Maximum sample extraction and analysis hold times are presented in Tables 4-1 and 4-2 of Shaw's PSAP Addendum. All holding time criteria were met by GPL. All sample shipments were received by GPL in good condition and within the required temperature criteria with the exception of samples associated with SDG 609020 which were received by GPL at 12°C. All samples associated with SDG 609020 were re-collected and submitted to GPL for analysis.

G.4.0 Data Evaluation and Usability

The data review process identified a few nonconformance issues that were noted during this SI. These anomalies have been discussed in the text of this Analytical Data QA/QC Report. Table G-6 summarizes impacted sample results associated with QC exceedances. Table G-4 defines laboratory and data validation qualifiers and Table G-5 defines data validation qualifier reason codes.

The following definitions are used for defining precision, accuracy, representativeness, completeness, comparability, and sensitivity as they have been applied to this evaluation:

Precision. Precision is a measurement of mutual agreement among individual measurements of the same property, usually under prescribed similar conditions. For this project, precision data were obtained through the analysis and evaluation of field duplicate samples as RPD. RPD is calculated as follows:

$$\text{RPD} = \frac{(V_1 - V_2)}{\frac{(V_1 + V_2)}{2}} \times 100$$

where:
RPD = relative percent difference
V1 = value 1; V2 = value 2

Parent sample and field duplicate comparisons show that the field team is consistent in their sample collection practices. Field duplicate results are summarized in Section G.2.1 and Tables G-2 and G-3.

Precision was also evaluated through the comparison of MS and MSD or LCS and LCSD results. The spiked samples (MS, MSD, LCS, LCSD) RPDs are evaluated during data validation and data are qualified accordingly. RPD within the acceptance criteria indicates that the laboratory is performing adequately and that the results are reproducible for the analytes of interest at this site. Acceptance criteria are defined in the MMRP PSAP and Shaw's PSAP Addendum for each analyte of concern. These data and all necessary qualifications are discussed in Section G.3.1.4.

In respect to precision, the data are usable for their intended purpose, with the exception of the QC exceedances discussed in the above referenced sections.

Accuracy. Accuracy is a measurement of bias in a system and is expressed as a percent recovery. Accuracy is typically determined through the analysis and evaluation of blanks, LCSs, and MS/MSD samples. Percent recovery is calculated as follows:

$$\% \text{ Recovery} = 100 \times \frac{\text{measured value}}{\text{true value}}$$

MS/MSDs, LCS, and surrogates and all data qualifications are summarized in Sections G.3.1.2 and G.3.1.4. The noted QC exceedances discussed in these sections resulted in the qualification of the reported data as being estimated ("UJ"/"J") but were not significant enough for rejection of the data. In respect to accuracy, the data are usable for their intended purpose.

Representativeness. Representativeness is a qualitative parameter that expresses the degree to which sample data actually represent the matrix and site conditions. General requirements and procedures referenced in Shaw's PSAP Addendum and corporate standard SOPs for sample collection and handling are designed to maximize sample representativeness. Representativeness also can be monitored by reviewing field documentation and by performing field audits. Soil and groundwater samples were collected at locations to identify the presence of MC associated with past military activities. Sediment samples were collected to assess possible contamination from surface runoff associated with previous operations at facilities and ranges located at Camp Adair. All samples were collected using SOPs and were fully documented through the use of standard field forms. Samples are representative of the matrix and site sampled.

Completeness. Laboratory completeness is a measure of the amount of valid data obtained during a sampling event as compared to the amount of data planned for collection and determined to be usable for the intended purpose. Typically, an overall laboratory completeness goal of 95 percent is set for projects of this type. Laboratory completeness is calculated as follows:

$$\%C = (U/T) \times 100$$

where:
%C = Percent completeness;
U = Number of measurements judged usable; and
T = Total number of measurements.

During this SI, 88 samples were collected resulting in a total of 2023 records. No results were rejected during the data quality evaluation. A summary of data qualification and the reasons for qualifier assignments is presented in Attachment 1. Using the above calculation, 100 % laboratory completeness was achieved for this sample event.

Field completeness is estimated as the percentage of all planned samples that were actually collected and analyzed. The calculation is as follows:

$$\%FC = (A/P) \times 100$$

where:
%FC = Field Percent Completeness;
A = Actual number of samples collected, and
P = Number of planned samples to collect

Discussion of field completeness is provided in the main text of the SI report including section *Variations from the Work Plan*.

Comparability. Comparability is a qualitative parameter expressing the confidence with which one data set can be compared with another. Comparability ensures that results for the sampling event can be compared with data from past and future sampling programs. Comparability for this sampling event was achieved through the use of established and recognized techniques and through the laboratory's use of standard EPA methodology. All samples collected for this task were subjected to the same sampling, handling, preparation, analysis, reporting, and validation criteria for the purpose of achieving comparability goals within the data set.

Sensitivity. Sensitivity is defined as the ability of the laboratory's established MDL/PQL to meet project-specific DQOs. MDL is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero. MDLs are determined from an analysis of a sample in a given matrix containing the target analyte of interest. The PQL is a threshold value based upon the sensitivity capability of method and instrument. PQLs are normally set at a minimum of three times the MDL. MDLs and PQLs are adjusted based on the sample matrix, moisture (solids only), and any necessary sample dilutions. The laboratory cannot reliably quantitate values reported above the MDL but below the PQL. Therefore, these analyte values must be flagged as estimated quantities ("J" flagged).

To evaluate method sensitivity, a general comparison of the laboratory's MDLs and PQLs and the

following regulatory values was performed. The Laboratory's aqueous PQLs/MDLs were compared against EPA Region 9 Preliminary Remediation Goals (PRG) for Tap Water and Federal Drinking Water Criteria Maximum Contaminant Levels (MCL). The laboratory soil PQLs/MDLs were compared against EPA Region 9 PRGs for Residential Soils, EPA Region 9 Soil Screening Levels (SSLs) Dilution Attenuation Factor (DAF)=1 and DAF=20, Oregon Department of Environmental Quality (ODEQ) Screening Level Values – Freshwater, EPA Sediment Ecological Screening Levels, ODEQ Level II Screening Level, and EPA Soil Ecological Screening Levels. These comparisons are summarized in Tables G-7a, G-7b, G-7c, G-7d, G-7e, G-7f, G-7g, G-7h, G-7i, G-7j for groundwater samples; Tables G-8a, G-8b, G-8c, G-8d, G-8e, G-8f, G-8g, G-8h, G-8i, G-8j for sediment samples; and Tables G-9a, G-9b, G-9c, G-9d, G-9e, G-9f, G-9g, G-9h, G-9i, G-9j, G-9k, G-9l, G-9m, and G-9n for soil samples.

GPL's water MDLs for all target analytes of interest met or are below EPA Region 9 PRGs and/or Federal Drinking Water Criteria MCLs with the exception of o-nitrotoluene. o-Nitrotoluene EPA Region 9 PRG value is established lower than routine laboratory method SW-846 8330A capability.

GPL's soil MDLs for all target analytes met or are below EPA Region 9 PRGs for Residential Soils, EPA Region 9 Soil Screening Levels (SSLs) Dilution Attenuation Factor (DAF)=1 and DAF=20, Oregon Department of Environmental Quality (ODEQ) Screening Level Values – Freshwater, EPA Sediment Ecological Screening Levels, ODEQ Level II Screening Level, and EPA Soil Ecological Screening Levels with the exception of HMX, cadmium, 2,4-dinitrotoluene, and 2,6-dinitrotoluene. HMX's EPA Sediment Ecological Screening Level; cadmium's corresponding ODEQ Screening Level Value – Freshwater; and 2,4-dinitrotoluene and 2,6-dinitrotoluene's EPA Region 9 SSL DAF=1 and DAF=20 values are established lower than routine laboratory method SW-846 6020A and SW-846 8330A capability, respectively.

G.4.1 Statement of Data Usability

One-hundred percent of the analytical data have been reviewed and validation qualifiers assigned based on EPA CLP *National Functional Guidelines for Organic Data Review,* October 1999 and EPA CLP *National Functional Guidelines for Inorganic Data Review,* October 2004. ADR software (version 8.1) was used to assist in the data validation process for all areas with the exception of ICBs, CCBs, interference check standards, serial dilutions, internal standards, instrument tuning standards, and second-column confirmation. Data were evaluated against specific criteria to verify the achievement of all precision, accuracy, representativeness, completeness, comparability, and sensitivity goals established to meet the project DQOs.

The overall quality of the data collected for the Camp Adair SI has been discussed in this Analytical Data QA/QC Report. Results of the analyses, as discussed in this evaluation are indicative of the media analyzed, with the exception of the QC exceedances listed below:

- Chromium and zinc results for soil sample NWO-017-0034; and sediment sample NWO-017-1008 were "J" qualified due to the serial dilution test % Difference exceeding QC criteria (% Difference<10%)

- Aluminum, calcium, chromium, cobalt, iron, manganese, nickel, and zinc results for soil sample NWO-017-5001 were "J" qualified due to the serial dilution test % Difference exceeding QC criteria (% Difference<10%)

- Strontium results for soil samples NWO-017-0024, NWO-017-0025, NWO-017-0029, NWO-017-0031, NWO-017-0032, NWO-017-0033, NWO-017-0034, NWO-017-0035, NWO-017-0036, NWO-017-0037, NWO-017-0038, NWO-017-0039R, NWO-017-0040R, NWO-017-0040RR, NWO-017-0040RR-ED, NWO-017-0041, NWO-017-0042, NWO-017-0043, NWO-017-5001, NWO-017-5002, NWO-017-5003, NWO-017-5004, NWO-017-5005, NWO-017-5006, NWO-017-5007, NWO-017-5008, NWO-017-5009, NWO-017-5010, NWO-017-5011; and sediment samples NWO-017-1002, NWO-017-1004, NWO-017-1005, NWO-017-1006, NWO-017-1007, NWO-017-1008, NWO-017-1009R, NWO-017-1010R, NWO-017-5012, NWO-017-5013, NWO-017-5014 were qualified "J" due to interference check solution recovery exceeding QC criteria

- Mercury results for soil samples NWO-017-0028 and NWO-017-0045 were "U" qualified due to CCB contamination

- Mercury results for soil samples NWO-017-0031, NWO-017-0032, NWO-017-0033, NWO-017-0035, NWO-017-0036, NWO-017-0037, NWO-017-0038, NWO-017-5005, NWO-017-5006, NWO-017-5007; and sediment samples NWO-017-1008, NWO-017-5013, and NWO-017-5014 were "U" qualified due to method blank contamination

- Chromium result for soil sample NWO-017-0033 was "U" qualified due to method blank contamination

- Thallium results for soil samples NWO-017-5001, NWO-017-5002, NWO-017-5003, and NWO-017-5004 were "U" qualified due to method blank contamination

- All explosive results reported for soil samples NWO-017-0042 and NWO-017-0043 were qualified "UJ" due to surrogate spike recoveries reported outside QC criteria

- Nitrobenzene results reported for soil samples NWO-017-0041, NWO-017-0043; and sediment sample NWO-017-1009R were “J” qualified due to the primary column / confirmation column RPD exceeding QC criteria (%RPD<40%)

- 4-Amino-2,6-dinitrotoluene result for soil sample NWO-017-0022 was qualified “UJ” due to MS/MSD spike recoveries reported outside QC criteria

- 1,3,5-Trinitrobenzene, 1,3-dinitrobenzene, 2,4-dinitrotoluene, 4-amino-2,6-dinitrotoluene, 2-amino-4,6-dinitrotoluene and 2-nitrotoluene results for soil sample NWO-017-0034 were qualified “UJ” due to MS/MSD spike recoveries reported outside QC criteria

- Antimony result for soil sample NWO-017-0034 was qualified “J” due to MS/MSD spike recoveries reported outside QC criteria

- Antimony and titanium results for sediment sample NWO-017-1008 were qualified “J” due to MS/MSD spike recoveries reported outside QC criteria

- 1,3,5-Trinitrobenzene, 2,4-dinitrotoluene, 4-amino-2,6-dinitrotoluene, 2-amino-4,6-dinitrotoluene, HMX, nitrobenzene and RDX results reported for soil sample NWO-017-0043 were qualified “J” / “UJ” due to MS/MSD spike recoveries reported outside QC criteria

- Antimony, barium, copper, molybdenum, nickel, and sodium results reported for soil sample NWO-017-5001 were qualified “J” / “UJ” due to MS/MSD spike recoveries reported outside QC criteria

- Nitroglycerine results for soil samples NWO-017-0022, NWO-017-0023, NWO-017-0027, NWO-017-0028, NWO-017-0030, NWO-017-0044, NWO-017-0045, NWO-017-0046; and sediment samples NWO-017-1003, NWO-017-1011, NWO-017-1012, NWO-017-1013 were qualified “UJ” due to LCS spike recovery reported outside QC criteria

- 1,3,5-Trinitrotoluene results for soil samples NWO-017-0024, NWO-017-0025, NWO-017-0029, NWO-017-0034, NWO-017-0039R, NWO-017-0040R, NWO-017-0040RR, NWO-017-0040RR-ED, NWO-017-0041, NWO-017-0042, NWO-017-0043; and sediment samples NWO-017-1002, NWO-017-1004, NWO-017-1005, NWO-017-1006, NWO-017-1007, NWO-017-1009R, NWO-017-1010R were qualified “UJ” due to LCS spike recovery reported outside QC criteria

- Perchlorate results for groundwater samples NWO-017-3002, NWO-017-3008, NWO-017-3009, NWO-017-3010, and NWO-017-6001 were qualified “UJ” due to a low-level CCV reported outside QC criteria

- Strontium results for groundwater samples NWO-017-3005, NWO-017-3006, NWO-017-3007, NWO-017-3008, NWO-017-3009, NWO-017-3010, NWO-017-3011,

NWO-017-3011 FD, NWO-017-6001, and NWO-017-6002 were "J" qualified due to interference check solution recovery exceeding QC criteria

- Aluminum, iron, nickel and zinc results for groundwater samples NWO-017-3011 (parent sample) and NWO-017-3011 FD (field duplicate) were "J" qualified due to their calculated RPDs exceeding QC criteria (%RPD<30%). A final qualifier of "UJ" was applied to aluminum results reported for samples NWO-017-3011 and NWO-017-3011 FD due to method blank contamination

- Aluminum, cobalt, and zinc results for groundwater sample NWO-017-3008 were "U" qualified due to CCB and/or method blank contamination

- Zinc result for groundwater sample NWO-017-3009 was "U" qualified due to method blank contamination.

- Aluminum, barium, and zinc results for groundwater sample NWO-017-3010 were "U" qualified due to method blank contamination

- Aluminum results for groundwater samples NWO-017-3006 and NWO-017-3007 were "U" qualified due to method blank contamination

- Aluminum and barium results for groundwater sample NWO-017-6002 were "U" qualified due to method blank contamination

- 1,3,5-Trinitrobenzene, 1,3-dinitrobenzene, 2,4,6-trinitrotoluene, 2,4-dinitrotoluene, 2,6-dinitrotoluene, 4-amino-2,6-dinitrotoluene, 2-amino-4,6-dinitrotoluene, HMX, nitrobenzene, RDX, tetryl, 2-nitrotoluene, 3-nitrotoluene, and 4-nitrotoluene results reported for groundwater sample NWO-017-3005 were qualified "J" / "UJ" due to MS/MSD spike recoveries and/or calculated RPDs reported outside QC criteria

- 1,3,5-Trinitrotoluene and HMX results for groundwater samples NWO-017-3008, NWO-017-3009, and NWO-017-3010 were qualified "UJ" due to LCS spike recoveries reported outside QC criteria

- HMX result for groundwater samples NWO-017-3005, NWO-017-3006, NWO-017-3007, NWO-017-3011, and NWO-017-3011 FD were qualified "UJ" due to LCS spike recovery reported outside QC criteria

- 2,4,6-Trinitrotoluene, 2,4-dinitrotoluene, and HMX results reported for groundwater sample NWO-017-3005 were "J" qualified due to the primary column / confirmation column RPD exceeding QC criteria (%RPD<40%)

- 2-Amino-4,6-dinitrotoluene and 4-amino-2,6-dinitrotoluene results reported for groundwater sample NWO-017-3005 were "J" qualified due to compounds co-eluting on the confirmation column. The laboratory is unable to confirm the presence of either compound by second-column confirmation

No data was “R” qualified as unusable. Overall, these data do reflect expected site conditions and they are fully usable for their intended purpose.

Table G-1

Summary of Samples Collected and Sample Tracking Information
Camp Adair

Location	Sample Number	Sample Purpose	Matrix	Sample Date	Start Depth (ft)	End Depth (ft)	Laboratory Sample Number	Lead by SW-846 6020A	Perchlorate by LC/MS *	PAHs by SW8270C (Low Level)	TAL Metals (Including Strontium and Titanium) by SW-846 6020A	Selected Metals ** by SW-846 6020A	Mercury by SW-846 7470A / 7471A	Explosives (Including Nitroglycerine & PETN by SW-846 8330A (Modified)
Range Complex No. 4														
017A001	NWO-017-0001	REG	SS	24-Aug-06	0.08	0.5	608163-010	X						
017A002	NWO-017-0002	REG	SS	31-Aug-06	0.08	0.5	609019-001	X						
017A003	NWO-017-0003	REG	SS	31-Aug-06	0.08	0.5	609019-002	X						
017A004	NWO-017-0004	REG	SS	31-Aug-06	0.08	0.5	609019-007	X						
017A005	NWO-017-0005	REG	SS	31-Aug-06	0.08	0.5	609019-003	X						
017A006	NWO-017-0006	REG	SS	31-Aug-06	0.08	0.5	609019-006	X						
	NWO-017-0007	FD	SS	31-Aug-06	0.08	0.5	609019-005	X						
017A007	NWO-017-0008	REG	SS	24-Aug-06	0	0.5	608163-011	X						
017A008	NWO-017-0009	REG	SS	6-Sep-06	0.08	0.5	609053-006	X						
017A009	NWO-017-1001	REG	SD	31-Aug-06	1	3	609019-004	X						
017A010	NWO-017-3001	REG	GW	20-Sep-06	0	0	609118-007	X	X					
Range Complex No. 5														
017A011	NWO-017-0010	REG	SS	31-Aug-06	0.08	0.5	609019-008	X						
	NWO-017-0010-MS	MS	SS	31-Aug-06	0.08	0.5	609019-008MS	X						
	NWO-017-0010-MSD	MSD	SS	31-Aug-06	0.08	0.5	609019-008MSD	X						
017A012	NWO-017-0011	REG	SS	6-Sep-06	0.08	0.5	609053-012	X						
017A013	NWO-017-0012	REG	SS	31-Aug-06	0.08	0.5	609019-009	X						
017A014	NWO-017-0013	REG	SS	7-Sep-06	0.08	0.5	609054-001	X						
017A015	NWO-017-3002	REG	GW	14-Sep-06	0	0	609093-001	X	X					
Range Complex No. 6														
017A016	NWO-017-0015R	REG	SS	11-Sep-06	0.08	0.5	609053-008	X						
017A017	NWO-017-0016R	REG	SS	11-Sep-06	0.08	0.5	609053-009	X						
017A018	NWO-017-0017R	REG	SS	11-Sep-06	0.08	0.5	609054-009	X						
017A019	NWO-017-0018FDR	FD	SS	11-Sep-06	0.17	0.5	609054-008	X						
	NWO-017-0018R	REG	SS	11-Sep-06	0.07	0.5	609054-007	X						
017A020	NWO-017-3003	REG	GW	12-Sep-06	0	0	609089-001	X						
	NWO-017-3004	FD	GW	12-Sep-06	0	0	609089-002	X						
Skeet Range No. 580														
017A021	NWO-017-0019	REG	SS	22-Aug-06	0.08	0.5	608158-003	X		X				
017A022	NWO-017-0020	REG	SS	22-Aug-06	0	0.5	608158-004	X		X				
017A023	NWO-017-0021	REG	SS	22-Aug-06	0	0.5	608158-005	X		X				
	NWO-017-0021-MS	MS	SS	22-Aug-06	0	0.5	608158-005MS	X		X				
	NWO-017-0021-MSD	MSD	SS	22-Aug-06	0	0.5	608158-005MSD	X		X				
Range Complex No. 1														
017A024	NWO-017-0022	REG	SS	23-Aug-06	0.17	0.5	608156-001					X	X	X
017A025	NWO-017-0023	REG	SS	23-Aug-06	0.08	0.5	608156-002					X	X	X
017A026	NWO-017-0024	REG	SS	24-Aug-06	0.08	0.5	608163-008					X	X	X
017A027	NWO-017-0025	REG	SS	24-Aug-06	0.08	0.5	608163-004					X	X	X
017A028	NWO-017-1002	REG	SD	24-Aug-06	0.08	0.33	608163-003					X	X	X
017A029	NWO-017-1003	REG	SD	23-Aug-06	0	0.5	608156-003					X	X	X
017A030	NWO-017-3005	REG	GW	20-Sep-06	0	0	609118-001		X			X	X	X
	NWO-017-3005-MS	MS	GW	20-Sep-06	0	0	609118-001MS		X			X	X	X
	NWO-017-3005-MSD	MSD	GW	20-Sep-06	0	0	609118-001MSD		X			X	X	X

Table G-1

Summary of Samples Collected and Sample Tracking Information
Camp Adair

Location	Sample Number	Sample Purpose	Matrix	Sample Date	Start Depth (ft)	End Depth (ft)	Laboratory Sample Number	Lead by SW-846 6020A	Perchlorate by LC/MS *	PAHs by SW8270C (Low Level)	TAL Metals (Including Strontium and Titanium) by SW-846 6020A	Selected Metals ** by SW-846 6020A	Mercury by SW-846 7470A / 7471A	Explosives (Including Nitroglycerine & PETN by SW-846 8330A (Modified)
Range Complex No. 2														
017A031	NWO-017-0027	REG	SS	23-Aug-06	0.08	0.5	608156-004					X	X	X
017A032	NWO-017-0028	REG	SS	23-Aug-06	0.08	0.5	608156-005					X	X	X
017A033	NWO-017-0029	REG	SS	24-Aug-06	0.08	0.5	608163-007					X	X	X
017A034	NWO-017-0030	REG	SS	23-Aug-06	0.17	0.5	608156-006					X	X	X
017A035	NWO-017-0031	REG	SS	29-Aug-06	0.08	0.5	608187-008					X	X	X
017A036	NWO-017-0032	REG	SS	29-Aug-06	0.08	0.5	608187-007					X	X	X
017A037	NWO-017-0033	REG	SS	28-Aug-06	0.08	0.5	608187-013					X	X	X
017A038	NWO-017-1004	REG	SD	25-Aug-06	0.08	0.5	608163-012					X	X	X
017A039	NWO-017-1005	REG	SD	24-Aug-06	0.08	0.5	608163-005					X	X	X
	NWO-017-1006	FD	SD	24-Aug-06	0.08	0.5	608163-006					X	X	X
017A040	NWO-017-3006	REG	GW	19-Sep-06	0	0	609118-002		X			X	X	X
017A041	NWO-017-3007	REG	GW	19-Sep-06	0	0	609118-003		X			X	X	X
Bombing Target No. 1														
017A042	NWO-017-0034	REG	SS	25-Aug-06	0.08	0.5	608163-001					X	X	X
017A043	NWO-017-1007	REG	SD	25-Aug-06	0.08	0.5	608163-002					X	X	X
017A044	NWO-017-3008	REG	GW	13-Sep-06	0	0	609089-003		X			X	X	X
Range Complex No. 3														
017A045	NWO-017-0035	REG	SS	28-Aug-06	0.08	0.5	608187-001					X	X	X
017A046	NWO-017-0036	REG	SS	28-Aug-06	0.08	0.5	608187-002					X	X	X
017A047	NWO-017-0037	REG	SS	29-Aug-06	0.08	0.5	608187-003					X	X	X
017A048	NWO-017-0038	REG	SS	28-Aug-06	0.08	0.5	608187-004					X	X	X
017A049	NWO-017-1008	REG	SD	28-Aug-06	0.08	0.5	608187-005					X	X	X
	NWO-017-1008-MS	MS	SD	28-Aug-06	0.08	0.5	608187-005MS					X	X	X
	NWO-017-1008-MSD	MSD	SD	28-Aug-06	0.08	0.5	608187-005MSD					X	X	X
017A050	NWO-017-3009	REG	GW	14-Sep-06	0	0	609093-004		X			X	X	X
Mortar Range														
017A051	NWO-017-0039R	REG	SS	7-Sep-06	0.08	0.5	609054-004					X	X	X
017A052	NWO-017-0040R	REG	SS	7-Sep-06	0.08	0.5	609054-005					X	X	X
	NWO-017-0040RR	REG	SS	11-Sep-06	0.08	0.5	609053-011					X	X	X
	NWO-017-0040RR-ED	FD	SS	11-Sep-06	0.08	0.5	609053-010					X	X	X
017A053	NWO-017-1009R	REG	SD	7-Sep-06	0.08	0.52	609054-003					X	X	X
017A054	NWO-017-3010	REG	GW	14-Sep-06	0	0	609093-002		X			X	X	X
Moving Target Range No. 75														
017A055	NWO-017-0041	REG	SS	6-Sep-06	0.08	0.5	609053-003					X	X	X
017A056	NWO-017-0042	REG	SS	6-Sep-06	0.08	0.5	609053-001					X	X	X
	NWO-017-0043	FD	SS	6-Sep-06	0.08	0.5	609053-002					X	X	X
017A057	NWO-017-1010R	REG	SD	7-Sep-06	0.08	0.33	609054-002					X	X	X
017A058	NWO-017-3011	REG	GW	20-Sep-06	0	0	609118-005		X			X	X	X
	NWO-017-3011 FD	FD	GW	20-Sep-06	0	0	609118-006		X			X	X	X
East Live Grenade Court														
017A059	NWO-017-0044	REG	SS	22-Aug-06	0	0.5	608158-001					X	X	X
017A060	NWO-017-1011	REG	SD	22-Aug-06	0	0.5	608158-002					X	X	X
West Live Hand Grenade Court														
017A061	NWO-017-0045	REG	SS	23-Aug-06	0.17	0.5	608158-006					X	X	X
Live Hand Grenade Court No. 129														
017A062	NWO-017-0046	REG	SS	22-Aug-06	0.08	0.5	608156-007					X	X	X
017A063	NWO-017-1012	REG	SD	23-Aug-06	0.08	0.5	608156-008					X	X	X
	NWO-017-1013	FD	SD	23-Aug-06	0.08	0.5	608156-009					X	X	X

Table G-1

Summary of Samples Collected and Sample Tracking Information
Camp Adair

Location	Sample Number	Sample Purpose	Matrix	Sample Date	Start Depth (ft)	End Depth (ft)	Laboratory Sample Number	Lead by SW-846 6020A	Perchlorate by LC/MS *	PAHs by SW8270C (Low Level)	TAL Metals (Including Strontium and Titanium) by SW-846 6020A	Selected Metals ** by SW-846 6020A	Mercury by SW-846 7470A / 7471A	Explosives (Including Nitroglycerine & PETN by SW-846 8330A (Modified)
Background Samples														
017A064	NWO-017-5001	REG	SS	7-Sep-06	0.08	0.5	609054-006				X		X	
	NWO-017-5001-MS	MS	SS	7-Sep-06	0.08	0.5	609054-006MS				X		X	
	NWO-017-5001-MSD	MSD	SS	7-Sep-06	0.08	0.5	609054-006MSD				X		X	
017A065	NWO-017-5002	REG	SS	6-Aug-06	0.08	0.5	609053-004				X		X	
017A066	NWO-017-5003	REG	SS	6-Sep-06	0.08	0.5	609053-005				X		X	
017A067	NWO-017-5004	REG	SS	6-Sep-06	0.08	0.5	609053-007				X		X	
017A068	NWO-017-5005	REG	SS	28-Aug-06	0.08	0.5	608187-010				X		X	
017A069	NWO-017-5006	REG	SS	29-Aug-06	0.08	0.5	608187-006				X		X	
017A070	NWO-017-5007	REG	SS	28-Aug-06	0.08	0.5	608187-011				X		X	
017A071	NWO-017-5008	REG	SS	25-Aug-06	0.08	0.5	608163-013				X		X	
017A072	NWO-017-5009	REG	SS	25-Aug-06	0.08	0.5	608163-014				X		X	
017A073	NWO-017-5010	REG	SS	25-Aug-06	0.08	0.5	608163-015				X		X	
	NWO-017-5011	FD	SS	25-Aug-06	0.08	0.5	608163-016				X		X	
017A074	NWO-017-5012	REG	SD	24-Aug-06	0.08	0.33	608163-009				X		X	
017A075	NWO-017-5013	REG	SD	28-Aug-06	0.08	0.5	608187-012				X		X	
017A076	NWO-017-5014	REG	SD	29-Aug-06	0.08	0.25	608187-009				X		X	
017A077	NWO-017-6001	REG	GW	14-Sep-06	0	0	609093-003		X		X		X	
017A078	NWO-017-6002	REG	GW	19-Sep-06	0	0	609118-004		X			X	X	

Notes:

* DataChem internal standard operating procedure *"LC/MS-CLO4-Rev2"*

** Selected metals include aluminum, antimony, barium, cadmium, chromium, cobalt, copper, iron, lead, magnesium, manganese, molybdenum, nickel, strontium, titanium, and zinc.

FD - field duplicate
MS - matrix spike
MSD - matrix spike duplicate
REG - regular field sample
SDG - sample delivery group
SS - surface soil (< 0.5ft bgs)
SD - sediment
SW - surface water
GW - Groundwater

Table G-2

Summary of Groundwater Parent and Field Duplicate Results and RPD Calculations
Camp Adair

Location				017A020					017A058				
Sample Date				12-Sep-06					20-Sep-06				
Sample Number				NWO-017-3003		NWO-017-3004			NWO-017-3011		NWO-017-3011 FD		
Sample Purpose				REG		FD			REG		FD		
Fraction	Parameter	Filtered	Units	Result	VQ	Result	VQ	RPD	Result	VQ	Result	VQ	RPD
Explosives	1,3,5-Trinitrobenzene	N	ug/L						0.044	U	0.042	U	NC
Explosives	1,3-Dinitrobenzene	N	ug/L						0.029	U	0.028	U	NC
Explosives	2,4,6-Trinitrotoluene	N	ug/L						0.052	U	0.05	U	NC
Explosives	2,4-Dinitrotoluene	N	ug/L						0.023	U	0.022	U	NC
Explosives	2,6-Dinitrotoluene	N	ug/L						0.042	U	0.04	U	NC
Explosives	2-Amino-4,6-dinitrotoluene	N	ug/L						0.045	U	0.044	U	NC
Explosives	4-Amino-2,6-Dinitrotoluene	N	ug/L						0.036	U	0.034	U	NC
Explosives	HMX	N	ug/L						0.022	UJ	0.021	UJ	NC
Explosives	3-Nitrotoluene	N	ug/L						0.11	U	0.11	U	NC
Explosives	Nitrobenzene	N	ug/L						0.018	U	0.017	U	NC
Explosives	Nitroglycerine	N	ug/L						0.21	U	0.2	U	NC
Explosives	2-Nitrotoluene	N	ug/L						0.079	U	0.076	U	NC
Explosives	PETN	N	ug/L						0.004	U	0.004	U	NC
Explosives	4-Nitrotoluene	N	ug/L						0.082	U	0.079	U	NC
Explosives	RDX	N	ug/L						0.084	U	0.08	U	NC
Explosives	Tetryl	N	ug/L						0.036	U	0.035	U	NC
Metals	Aluminum	N	ug/L						11.8	UJ	7.4	UJ	**45.8**
Metals	Antimony	N	ug/L						0.13	U	0.13	U	NC
Metals	Barium	N	ug/L						20.2		19.6		3.0
Metals	Cadmium	N	ug/L						0.17	U	0.17	U	NC
Metals	Chromium	N	ug/L						1.3	U	1.3	U	NC
Metals	Cobalt	N	ug/L						0.016	U	0.016	U	NC
Metals	Copper	N	ug/L						1.4	J	1.6	J	13.3
Metals	Iron	N	ug/L						16.3	J	30.1	J	**59.5**
Metals	Lead	N	ug/L	0.46	J	0.36	J	24.4	0.24	J	0.25	J	4.1
Metals	Magnesium	N	ug/L						1410		1400		0.7
Metals	Manganese	N	ug/L						11.3		11.5		1.8
Metals	Mercury	N	ug/L						0.034	U	0.034	U	NC
Metals	Molybdenum	N	ug/L						1.3	J	1.4	J	7.4
Metals	Nickel	N	ug/L						0.29	J	1.1	J	**116.5**
Metals	Strontium	N	ug/L						101	J	98.3	J	2.7
Metals	Titanium	N	ug/L						0.85	J	0.79	J	7.3
Metals	Zinc	N	ug/L						18.2	J	9.2	J	**65.7**
Perchlorate	Perchlorate	Y	ug/L						0.0612	U	0.0612	U	NC

REG - regular sample
FD - field duplicate sample
ug/L - microgram per liter
RPD - relative percent difference
NC - not calculated
VQ - validation qualifier

HMX - octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
PETN - Pentaerythritol tetranitrate
RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine
Tetryl - methyl-2,4,6-trinitrophenylnitramine

Validation Qualifier Definitions

U - Not detected. The compound/analyte was analyzed for, but not detected above the associated reporting limit

J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed

R - The reported sample results are rejected due to the following: 1. Severe deficiencies in the supporting quality control data, 2. Anomalies noted in the sampling and/or analysis process which could affect the validity of the reported data, 3. The presence or absence of the constituent cannot be verified based on the data provided, 4. To indicate not to use a particular result in the event of a reanalysis

UJ - The compound/analyte was analyzed for, but not detected above the established reporting limit. However, review and evaluation of supporting QC data and/or sampling and analysis process have indicated that the reporting limit may be inaccurate or imprecise. The nondetect result should be estimated

Table G-3

Summary of Soil / Sediment Parent and Field Duplicate Results and RPD Calculations
Camp Adair

Location			017A006					017A019					017A052A				
Sample Date			31-Aug-06					11-Sep-06					11-Sep-06				
Sample Number			NWO-017-0006		NWO-017-0007			NWO-017-0018R		NWO-017-0018FDR			NWO-017-0040RR		NWO-017-0040RR-ED		
Sample Depth (bgs) (ft)			0.08 to 0.5		0.08 to 0.5			0.07 to 0.5		0.17 to 0.5			0.08 to 0.5		0.08 to 0.5		
Sample Purpose			REG		FD			REG		FD			REG		FD		
Fraction	**Parameter**	**Units**	**Result**	**VQ**	**Result**	**VQ**	**RPD**	**Result**	**VQ**	**Result**	**VQ**	**RPD**	**Result**	**VQ**	**Result**	**VQ**	**RPD**
Explosives	1,3,5-Trinitrobenzene	mg/kg											0.012	UJ	0.012	UJ	NC
Explosives	1,3-Dinitrobenzene	mg/kg											0.002	U	0.002	U	NC
Explosives	2,4,6-Trinitrotoluene	mg/kg											0.008	U	0.008	U	NC
Explosives	2,4-Dinitrotoluene	mg/kg											0.014	U	0.014	U	NC
Explosives	2,6-Dinitrotoluene	mg/kg											0.007	U	0.007	U	NC
Explosives	2-Amino-4,6-dinitrotoluene	mg/kg											0.01	U	0.01	U	NC
Explosives	4-Amino-2,6-Dinitrotoluene	mg/kg											0.006	U	0.006	U	NC
Explosives	HMX	mg/kg											0.012	U	0.012	U	NC
Explosives	3-Nitrotoluene	mg/kg											0.022	U	0.022	U	NC
Explosives	Nitrobenzene	mg/kg											0.006	U	0.006	U	NC
Explosives	Nitroglycerine	mg/kg											0.04	U	0.04	U	NC
Explosives	2-Nitrotoluene	mg/kg											0.009	U	0.009	U	NC
Explosives	PETN	mg/kg											0.042	U	0.042	U	NC
Explosives	4-Nitrotoluene	mg/kg											0.036	U	0.036	U	NC
Explosives	RDX	mg/kg											0.071	U	0.071	U	NC
Explosives	Tetryl	mg/kg											0.004	U	0.004	U	NC
Metals	Aluminum	mg/kg											49700		53200		6.8
Metals	Antimony	mg/kg											0.14	U	0.14	U	NC
Metals	Barium	mg/kg											169		182		7.4
Metals	Cadmium	mg/kg											0.8		0.74		7.8
Metals	Chromium	mg/kg											147		155		5.3
Metals	Cobalt	mg/kg											62		65.5		5.5
Metals	Copper	mg/kg											131		129		1.5
Metals	Iron	mg/kg											73600		78100		5.9
Metals	Lead	mg/kg	10.4		10.3		1.0	13.5		13.8		2.2	4.2		4.5		6.9
Metals	Magnesium	mg/kg											13000		13600		4.5
Metals	Manganese	mg/kg											2090		2290		9.1
Metals	Mercury	mg/kg											0.021	J	0.022	J	4.7
Metals	Molybdenum	mg/kg											0.31		0.24		25.5
Metals	Nickel	mg/kg											71.9		77.3		7.2
Metals	Strontium	mg/kg											86.3	J	89.3	J	3.4
Metals	Titanium	mg/kg											4900		4750		3.1
Metals	Zinc	mg/kg											75.4		78.2		3.6

bgs - below ground surface
ft - feet
REG - regular sample
FD - field duplicate sample
mg/kg - milligram per kilogram
RPD - relative percent difference
NC - not calculated
VQ - validation qualifier

HMX - octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
PETN - Pentaerythritol tetranitrate
RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine
Tetryl - methyl-2,4,6-trinitrophenylnitramine

Validation Qualifier Definitions

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Table G-3

Summary of Soil / Sediment Parent and Field Duplicate Results and RPD Calculations
Camp Adair

Location			017A056					017A039					017A063				
Sample Date			6-Sep-06					24-Aug-06					23-Aug-06				
Sample Number			NWO-017-0042		NWO-017-0043			NWO-017-1005		NWO-017-1006			NWO-017-1012		NWO-017-1013		
Sample Depth (bgs) (ft)			0.08 to 0.5		0.08 to 0.5			0.08 to 0.5		0.08 to 0.5			0.08 to 0.5		0.08 to 0.5		
Sample Purpose			REG		FD			REG		FD			REG		FD		
Fraction	**Parameter**	**Units**	**Result**	**VQ**	**Result**	**VQ**	**RPD**	**Result**	**VQ**	**Result**	**VQ**	**RPD**	**Result**	**VQ**	**Result**	**VQ**	**RPD**
Explosives	1,3,5-Trinitrobenzene	mg/kg	0.012	UJ	0.012	UJ	NC	0.012	UJ	0.012	UJ	NC	0.012	U	0.012	U	NC
Explosives	1,3-Dinitrobenzene	mg/kg	0.002	UJ	0.002	UJ	NC	0.002	U	0.002	U	NC	0.002	U	0.002	U	NC
Explosives	2,4,6-Trinitrotoluene	mg/kg	0.008	UJ	0.008	UJ	NC	0.008	U	0.008	U	NC	0.008	U	0.008	U	NC
Explosives	2,4-Dinitrotoluene	mg/kg	0.014	UJ	0.014	UJ	NC	0.014	U	0.014	U	NC	0.014	U	0.014	U	NC
Explosives	2,6-Dinitrotoluene	mg/kg	0.007	UJ	0.007	UJ	NC	0.007	U	0.007	U	NC	0.007	U	0.007	U	NC
Explosives	2-Amino-4,6-dinitrotoluene	mg/kg	0.01	UJ	0.01	UJ	NC	0.01	U	0.01	U	NC	0.01	U	0.01	U	NC
Explosives	4-Amino-2,6-Dinitrotoluene	mg/kg	0.006	UJ	0.006	UJ	NC	0.006	U	0.006	U	NC	0.006	U	0.006	U	NC
Explosives	HMX	mg/kg	0.012	UJ	0.012	UJ	NC	0.012	U	0.012	U	NC	0.012	U	0.012	U	NC
Explosives	3-Nitrotoluene	mg/kg	0.022	UJ	0.022	UJ	NC	0.022	U	0.022	U	NC	0.022	U	0.022	U	NC
Explosives	Nitrobenzene	mg/kg	0.006	UJ	0.024	J	NC	0.006	U	0.006	U	NC	0.006	U	0.006	U	NC
Explosives	Nitroglycerine	mg/kg	0.04	U	0.04	U	NC	0.04	U	0.04	U	NC	0.04	UJ	0.04	UJ	NC
Explosives	2-Nitrotoluene	mg/kg	0.009	UJ	0.009	UJ	NC	0.009	U	0.009	U	NC	0.009	U	0.009	U	NC
Explosives	PETN	mg/kg	0.041	UJ	0.042	U	NC	0.042	U	0.042	U	NC	0.042	U	0.042	U	NC
Explosives	4-Nitrotoluene	mg/kg	0.036	UJ	0.036	UJ	NC	0.036	U	0.036	U	NC	0.036	U	0.036	U	NC
Explosives	RDX	mg/kg	0.071	UJ	0.071	UJ	NC	0.071	U	0.071	U	NC	0.071	U	0.071	U	NC
Explosives	Tetryl	mg/kg	0.004	UJ	0.004	UJ	NC	0.004	U	0.004	U	NC	0.004	U	0.004	U	NC
Metals	Aluminum	mg/kg	30500		31000		1.6	14500		16000		9.8	12300		16100		26.8
Metals	Antimony	mg/kg	0.23		0.25		8.3	0.14	U	0.14	U	NC	0.14	U	0.14	U	NC
Metals	Barium	mg/kg	302		315		4.2	125		135		7.7	76		104		31.1
Metals	Cadmium	mg/kg	0.35		0.44		22.8	0.28	J	0.36	J	25.0	0.18	J	0.18	J	0.0
Metals	Chromium	mg/kg	55.8		57.4		2.8	17.8		19.4		8.6	19.9		24.2		19.5
Metals	Cobalt	mg/kg	34		33.2		2.4	11.4		12.5		9.2	17.2		17.7		2.9
Metals	Copper	mg/kg	39.3		39.5		0.5	15.2		16.8		10.0	14.1		18.4		26.5
Metals	Iron	mg/kg	42800		44100		3.0	33000		34400		4.2	21200		25000		16.5
Metals	Lead	mg/kg	15.4		16.4		6.3	9.9		10.2		3.0	5		5.9		16.5
Metals	Magnesium	mg/kg	4860		4990		2.6	3550		3850		8.1	1920		2580		29.3
Metals	Manganese	mg/kg	1570		1650		5.0	419		475		12.5	939		1090		14.9
Metals	Mercury	mg/kg	0.04		0.037		7.8	0.027		0.024	J	11.8	0.034		0.048		34.1
Metals	Molybdenum	mg/kg	0.62		0.63		1.6	0.33	J	0.33	J	0.0	0.24	U	0.24	J	NC
Metals	Nickel	mg/kg	31.7		32		0.9	14.4		15.5		7.4	6.2		8.3		29.0
Metals	Strontium	mg/kg	61.4	J	62.6	J	1.9	16.8	J	17.5	J	4.1	19.7		30.1		41.8
Metals	Titanium	mg/kg	649		663		2.1	729		742		1.8	379		510		29.5
Metals	Zinc	mg/kg	58.5		62.3		6.3	67.2		68.3		1.6	27.8		38.5		32.3

bgs - below ground surface
ft - feet
REG - regular sample
FD - field duplicate sample
mg/kg - milligram per kilogram
RPD - relative percent difference
NC - not calculated
VQ - validation qualifier

HMX - octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
PETN - Pentaerythritol tetranitrate
RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine
Tetryl - methyl-2,4,6-trinitrophenylnitramine

Validation Qualifier Definitions

U - Not detected. The compound/analyte was analyzed for, but not detected above the associated reporting limit

J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed

R - The reported sample results are rejected due to the following: 1. Severe deficiencies in the supporting quality control data, 2. Anomalies noted in the sampling and/or analysis process which could affect the validity of the reported data, 3. The presence or absence of the constituent cannot be verified based on the data provided, 4. To indicate not to use a particular result in the event of a reanalysis

UJ - The compound/analyte was analyzed for, but not detected above the established reporting limit. However, review and evaluation of supporting QC data and/or sampling and analysis process have indicated that the reporting limit may be inaccurate or imprecise. The nondetect result should be estimated

Table G-3

Summary of Soil / Sediment Parent and Field Duplicate Results and RPD Calculations
Camp Adair

Location			017A073				
Sample Date			25-Aug-06				
Sample Number			NWO-017-5010		NWO-017-5011		
Sample Depth (bgs) (ft)			0.08 to 0.5		0.08 to 0.5		
Sample Purpose			REG		FD		
Fraction	**Parameter**	**Units**	**Result**	**VQ**	**Result**	**VQ**	**RPD**
Metals	Aluminum	mg/kg	19700		20400		3.5
Metals	Antimony	mg/kg	0.14	J	0.16	J	13.3
Metals	Arsenic	mg/kg	5.8		5.9		1.7
Metals	Barium	mg/kg	117		121		3.4
Metals	Beryllium	mg/kg	0.67		0.68		1.5
Metals	Cadmium	mg/kg	0.2	J	0.18	J	10.5
Metals	Calcium	mg/kg	1350		1360		0.7
Metals	Chromium	mg/kg	30.8		26.8		13.9
Metals	Cobalt	mg/kg	11.8		12.1		2.5
Metals	Copper	mg/kg	15.2		15.4		1.3
Metals	Iron	mg/kg	26600		26700		0.4
Metals	Lead	mg/kg	17.2		17.6		2.3
Metals	Magnesium	mg/kg	2250		2370		5.2
Metals	Manganese	mg/kg	623		643		3.2
Metals	Mercury	mg/kg	0.041		0.031		27.8
Metals	Molybdenum	mg/kg	0.4	J	0.42	J	4.9
Metals	Nickel	mg/kg	10.9		11.5		5.4
Metals	Potassium	mg/kg	1150		1190		3.4
Metals	Selenium	mg/kg	0.77	U	0.73	U	5.3
Metals	Silver	mg/kg	0.026	J	0.029	J	10.9
Metals	Sodium	mg/kg	35	J	36.7	J	4.7
Metals	Titanium	mg/kg	645		658		2.0
Metals	Vanadium	mg/kg	60.2		63.4		5.2
Metals	Thallium	mg/kg	0.19	J	0.17	J	11.1
Metals	Zinc	mg/kg	40.2		40.8		1.5

bgs - below ground surface
ft - feet
REG - regular sample
FD - field duplicate sample
mg/kg - milligram per kilogram
RPD - relative percent difference
NC - not calculated
VQ - validation qualifier

HMX - octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
PETN - Pentaerythritol tetranitrate
RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine
Tetryl - methyl-2,4,6-trinitrophenylnitramine

Validation Qualifier Definitions

U - Not detected. The compound/analyte was analyzed for, but not detected above the associated reporting limit

J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed

R - The reported sample results are rejected due to the following: 1. Severe deficiencies in the supporting quality control data, 2. Anomalies noted in the sampling and/or analysis process which could affect the validity of the reported data, 3. The presence or absence of the constituent cannot be verified based on the data provided, 4. To indicate not to use a particular result in the event of a reanalysis

UJ - The compound/analyte was analyzed for, but not detected above the established reporting limit. However, review and evaluation of supporting QC data and/or sampling and analysis process have indicated that the reporting limit may be inaccurate or imprecise. The nondetect result should be estimated

Table G-4

Laboratory Qualifier and Data Validation Qualifier Definitions

Laboratory Qualifier Definitions

All Departments	
U	Indicates that the compound was analyzed for but not detected
BQL	Below Quantitation Limit
D	Indicates that the analyte was reported from a diluted analysis
Organics	
B	Indicates that the analyte was found in the associated blank as well as in the sample
E	Indicates that the concentration detected exceeded the calibration range of the instrument
J	Value is less than the reporting limit by greater than the MDL
P	Indicates that there is greater than 40% difference for detected explosive results between two columns
Metals	
J	Indicates that the reported value was less than the reporting limit but greater than or equal to the IDL/MDL
E	Indicates that the reported value is estimated because of the possible presence of interferences (i.e., the serial dilution not within control limits)
B	Indicates that the element was found in an associated blank above 2x the MDL and/or ½ RL of a ICB / CCB / ICSA
N	Spiked sample recovery not within control limits
*	Duplicate analysis not within control limits

Data Validation Qualifier Definitions

U	Not detected. The compound/analyte was analyzed for, but not detected above the associated reporting limit
J	The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed
R	The reported sample results are rejected due to the following: 1. Severe deficiencies in the supporting quality control data 2. Anomalies noted in the sampling and/or analysis process which could affect the validity of the reported data 3. The presence or absence of the constituent cannot be verified based on the data provided 4. To indicate not to use a particular result in the event of a reanalysis
UJ	The compound/analyte was analyzed for, but not detected above the established reporting limit. However, review and evaluation of supporting QC data and/or sampling and analysis process have indicated that the reporting limit may be inaccurate or imprecise. The nondetect result should be estimated

Table G-5

Data Validation Qualifier Reason Code Definitions

Reason Code	Definition
01	Sample received outside of 4+/-2 degrees Celsius
01A	Improper sample preservation
02	Holding time exceeded
02A	Extraction
02B	Analysis
03	Instrument performance – outside criteria
03A	BFB
03B	DFTPP
03C	DDT and/or Endrin % breakdown exceeds criteria
03D	Retention time windows
03E	Resolution
04	Initial calibration results outside specified criteria
04A	Compound mean RRF QC criteria not met
04B	Individual % RSD criteria not met
04C	Correlation coefficient >0.995
05	Continuing calibration results outside specified criteria
05A	Compound mean RRF QC criteria not met
05B	Compound % D QC criteria not met
06	Result qualified as a result of the 5x/10x blank correction
06A	Method or preparation blank
06B	ICB or CCB
06C	ER
06D	TB
06E	FB
07	Surrogate recoveries outside control limits
07A	Sample
07B	Associated method blank or LCS
08	MS/MSD/Duplicate results outside criteria
08A	MS and/or MSD recovery not within control limits (accuracy)
08B	% RPD outside acceptance criteria (precision)
09	Post digestion spike outside criteria (GFAA)
10	Internal standards outside specified control limits
10A	Recovery
10B	Retention time
11	Laboratory control sample recoveries outside specified limits
11A	Recovery
11B	% RPD (if run in duplicate)
12	Interference check standard
13	Serial dilution
14	Tentatively identified compounds
15	Quantitation
16	Multiple results available; alternate analysis preferred
17	Field duplicate RPD criteria is exceeded
18	Percent difference between original and second column exceeds QC criteria
19	Professional judgement was used to qualify the data
20	Pesticide clean-up checks
21	Target compound identification
22	Radiological calibration
23	Radiological quantitation
24	Reported result and/or lab qualifier revised to reflect validation findings

Table G-6

Summary of Negatively Impacted Sample Results Associated with Adverse QC Criteria
Camp Adair

SDG	Sample Number	Fraction	Matrix	Parameter	Result	Units	LQ	VQ	R1	R2	R3	R4
608156	NWO-017-0022	Explosives	SO	4-Amino-2,6-dinitrotoluene	0.006	mg/kg	U	UJ	08A			
608156	NWO-017-0022	Explosives	SO	Nitroglycerine	0.04	mg/kg	U	UJ	11A			
608156	NWO-017-0023	Explosives	SO	Nitroglycerine	0.04	mg/kg	U	UJ	11A			
608156	NWO-017-0027	Explosives	SO	Nitroglycerine	0.04	mg/kg	U	UJ	11A			
608156	NWO-017-0028	Explosives	SO	Nitroglycerine	0.04	mg/kg	U	UJ	11A			
608156	NWO-017-0028	Metals	SO	Mercury	0.024	mg/kg	J	U	06B			
608156	NWO-017-0030	Explosives	SO	Nitroglycerine	0.04	mg/kg	U	UJ	11A			
608156	NWO-017-0046	Explosives	SO	Nitroglycerine	0.04	mg/kg	U	UJ	11A			
608156	NWO-017-1003	Explosives	SD	Nitroglycerine	0.04	mg/kg	U	UJ	11A			
608156	NWO-017-1012	Explosives	SD	Nitroglycerine	0.04	mg/kg	U	UJ	11A			
608156	NWO-017-1013	Explosives	SD	Nitroglycerine	0.04	mg/kg	U	UJ	11A			
608158	NWO-017-0044	Explosives	SO	Nitroglycerine	0.04	mg/kg	U	UJ	11A			
608158	NWO-017-0045	Explosives	SO	Nitroglycerine	0.04	mg/kg	U	UJ	11A			
608158	NWO-017-0045	Metals	SO	Mercury	0.029	mg/kg		U	06B			
608158	NWO-017-1011	Explosives	SD	Nitroglycerine	0.04	mg/kg	U	UJ	11A			
608163	NWO-017-0024	Explosives	SO	1,3,5-Trinitrobenzene	0.012	mg/kg	U	UJ	11A			
608163	NWO-017-0024	Metals	SO	Strontium	3.5	mg/kg	D	J	19	12		
608163	NWO-017-0025	Explosives	SO	1,3,5-Trinitrobenzene	0.012	mg/kg	U	UJ	11A			
608163	NWO-017-0025	Metals	SO	Strontium	5.8	mg/kg	D	J	19	12		
608163	NWO-017-0029	Explosives	SO	1,3,5-Trinitrobenzene	0.012	mg/kg	U	UJ	11A			
608163	NWO-017-0029	Metals	SO	Strontium	25.3	mg/kg	D	J	19	12		
608163	NWO-017-0034	Explosives	SO	1,3,5-Trinitrobenzene	0.012	mg/kg	U	UJ	08A	11A		
608163	NWO-017-0034	Explosives	SO	1,3-Dinitrobenzene	0.002	mg/kg	U	UJ	08A			
608163	NWO-017-0034	Explosives	SO	2,4-Dinitrotoluene	0.014	mg/kg	U	UJ	08A			
608163	NWO-017-0034	Explosives	SO	2-Amino-4,6-dinitrotoluene	0.01	mg/kg	U	UJ	08A			
608163	NWO-017-0034	Explosives	SO	4-Amino-2,6-dinitrotoluene	0.006	mg/kg	U	UJ	08B	08A		
608163	NWO-017-0034	Explosives	SO	o-Nitrotoluene	0.009	mg/kg	U	UJ	08A			
608163	NWO-017-0034	Metals	SO	Antimony	0.19	mg/kg	JND	J	15	08A		
608163	NWO-017-0034	Metals	SO	Chromium	25.4	mg/kg	EDB	J	19	13		
608163	NWO-017-0034	Metals	SO	Strontium	17.7	mg/kg	D	J	19	12		
608163	NWO-017-0034	Metals	SO	Zinc	44.6	mg/kg	EDB	J	19	13		
608163	NWO-017-1002	Explosives	SD	1,3,5-Trinitrobenzene	0.012	mg/kg	U	UJ	11A			
608163	NWO-017-1002	Metals	SD	Strontium	22.4	mg/kg	D	J	19	12		
608163	NWO-017-1004	Explosives	SD	1,3,5-Trinitrobenzene	0.012	mg/kg	U	UJ	11A			
608163	NWO-017-1004	Metals	SD	Strontium	20.1	mg/kg	D	J	19	12		
608163	NWO-017-1005	Explosives	SD	1,3,5-Trinitrobenzene	0.012	mg/kg	U	UJ	11A			
608163	NWO-017-1005	Metals	SD	Strontium	16.8	mg/kg	D	J	19	12		
608163	NWO-017-1006	Explosives	SD	1,3,5-Trinitrobenzene	0.012	mg/kg	U	UJ	11A			
608163	NWO-017-1006	Metals	SD	Strontium	17.5	mg/kg	D	J	19	12		
608163	NWO-017-1007	Explosives	SD	1,3,5-Trinitrobenzene	0.012	mg/kg	U	UJ	11A			
608163	NWO-017-1007	Metals	SD	Strontium	30.1	mg/kg	D	J	19	12		
608163	NWO-017-5008	Metals	SO	Strontium	14.5	mg/kg	D	J	19	12		
608163	NWO-017-5009	Metals	SO	Strontium	20.2	mg/kg	D	J	19	12		

Table G-6

Summary of Negatively Impacted Sample Results Associated with Adverse QC Criteria
Camp Adair

SDG	Sample Number	Fraction	Matrix	Parameter	Result	Units	LQ	VQ	R1	R2	R3	R4
608163	NWO-017-5010	Metals	SO	Strontium	12.3	mg/kg	D	J	19	12		
608163	NWO-017-5011	Metals	SO	Strontium	12.4	mg/kg	D	J	19	12		
608163	NWO-017-5012	Metals	SO	Strontium	52.4	mg/kg	D	J	19	12		
608187	NWO-017-0031	Metals	SO	Mercury	0.043	mg/kg		U	06A			
608187	NWO-017-0031	Metals	SO	Strontium	12.7	mg/kg	D	J	12			
608187	NWO-017-0032	Metals	SO	Mercury	0.027	mg/kg	J	U	06A			
608187	NWO-017-0032	Metals	SO	Strontium	19.2	mg/kg	D	J	12			
608187	NWO-017-0033	Metals	SO	Chromium	2.9	mg/kg	B	U	06A			
608187	NWO-017-0033	Metals	SO	Strontium	2.3	mg/kg		J	12			
608187	NWO-017-0035	Metals	SO	Mercury	0.031	mg/kg		U	06A			
608187	NWO-017-0035	Metals	SO	Strontium	27.8	mg/kg	D	J	12			
608187	NWO-017-0036	Metals	SO	Mercury	0.033	mg/kg		U	06A			
608187	NWO-017-0036	Metals	SO	Strontium	55	mg/kg	D	J	12			
608187	NWO-017-0037	Metals	SO	Mercury	0.045	mg/kg		U	06A			
608187	NWO-017-0037	Metals	SO	Strontium	35.1	mg/kg	D	J	12			
608187	NWO-017-0038	Metals	SO	Mercury	0.027	mg/kg	J	U	06A			
608187	NWO-017-0038	Metals	SO	Strontium	33.5	mg/kg	D	J	12			
608187	NWO-017-1008	Metals	SD	Antimony	0.27	mg/kg	JND	J	15	08A		
608187	NWO-017-1008	Metals	SD	Chromium	35	mg/kg	EDB	J	13			
608187	NWO-017-1008	Metals	SD	Mercury	0.029	mg/kg		U	06A			
608187	NWO-017-1008	Metals	SD	Strontium	25.8	mg/kg	D	J	12			
608187	NWO-017-1008	Metals	SD	Titanium	318	mg/kg	ND	J	08A			
608187	NWO-017-1008	Metals	SD	Zinc	62.5	mg/kg	EDB	J	13			
608187	NWO-017-5005	Metals	SO	Mercury	0.035	mg/kg		U	06A			
608187	NWO-017-5005	Metals	SO	Strontium	12.8	mg/kg	D	J	12			
608187	NWO-017-5006	Metals	SO	Mercury	0.034	mg/kg		U	06A			
608187	NWO-017-5006	Metals	SO	Strontium	22.5	mg/kg	D	J	12			
608187	NWO-017-5007	Metals	SO	Mercury	0.052	mg/kg		U	06A			
608187	NWO-017-5007	Metals	SO	Strontium	30.1	mg/kg	D	J	12			
608187	NWO-017-5013	Metals	SO	Mercury	0.019	mg/kg	J	U	06A			
608187	NWO-017-5013	Metals	SO	Strontium	21.3	mg/kg	D	J	12			
608187	NWO-017-5014	Metals	SO	Mercury	0.051	mg/kg		U	06A			
608187	NWO-017-5014	Metals	SO	Strontium	25.9	mg/kg	D	J	12			
609053	NWO-017-0040RR	Explosives	SO	1,3,5-Trinitrobenzene	0.012	mg/kg	U	UJ	11A			
609053	NWO-017-0040RR	Metals	SO	Strontium	86.3	mg/kg	D	J	19	12		
609053	NWO-017-0040RR-ED	Explosives	SO	1,3,5-Trinitrobenzene	0.012	mg/kg	U	UJ	11A			
609053	NWO-017-0040RR-ED	Metals	SO	Strontium	89.3	mg/kg	D	J	19	12		
609053	NWO-017-0041	Explosives	SO	1,3,5-Trinitrobenzene	0.012	mg/kg	U	UJ	11A			
609053	NWO-017-0041	Explosives	SO	Nitrobenzene	0.021	mg/kg	J	J	19	18	15	
609053	NWO-017-0041	Metals	SO	Strontium	131	mg/kg	D	J	19	12		
609053	NWO-017-0042	Explosives	SO	1,3,5-Trinitrobenzene	0.012	mg/kg	U	UJ	07A	11A		
609053	NWO-017-0042	Explosives	SO	1,3-Dinitrobenzene	0.002	mg/kg	U	UJ	07A			
609053	NWO-017-0042	Explosives	SO	2,4,6-Trinitrotoluene	0.008	mg/kg	U	UJ	07A			

Table G-6

Summary of Negatively Impacted Sample Results Associated with Adverse QC Criteria
Camp Adair

SDG	Sample Number	Fraction	Matrix	Parameter	Result	Units	LQ	VQ	R1	R2	R3	R4
609053	NWO-017-0042	Explosives	SO	2,4-Dinitrotoluene	0.014	mg/kg	U	UJ	07A			
609053	NWO-017-0042	Explosives	SO	2,6-Dinitrotoluene	0.007	mg/kg	U	UJ	07A			
609053	NWO-017-0042	Explosives	SO	2-Amino-4,6-dinitrotoluene	0.01	mg/kg	U	UJ	07A			
609053	NWO-017-0042	Explosives	SO	4-Amino-2,6-dinitrotoluene	0.006	mg/kg	U	UJ	07A			
609053	NWO-017-0042	Explosives	SO	HMX	0.012	mg/kg	U	UJ	07A			
609053	NWO-017-0042	Explosives	SO	m-Nitrotoluene	0.022	mg/kg	U	UJ	07A			
609053	NWO-017-0042	Explosives	SO	Nitrobenzene	0.006	mg/kg	U	UJ	07A			
609053	NWO-017-0042	Explosives	SO	o-Nitrotoluene	0.009	mg/kg	U	UJ	07A			
609053	NWO-017-0042	Explosives	SO	Pentaerythritol tetranitrate	0.041	mg/kg	U	UJ	07A			
609053	NWO-017-0042	Explosives	SO	p-Nitrotoluene	0.036	mg/kg	U	UJ	07A			
609053	NWO-017-0042	Explosives	SO	RDX	0.071	mg/kg	U	UJ	07A			
609053	NWO-017-0042	Explosives	SO	Tetryl	0.004	mg/kg	U	UJ	07A			
609053	NWO-017-0042	Metals	SO	Strontium	61.4	mg/kg	D	J	19	12		
609053	NWO-017-0043	Explosives	SO	1,3,5-Trinitrobenzene	0.012	mg/kg	U	UJ	07A	11A	08A	
609053	NWO-017-0043	Explosives	SO	1,3-Dinitrobenzene	0.002	mg/kg	U	UJ	07A			
609053	NWO-017-0043	Explosives	SO	2,4,6-Trinitrotoluene	0.008	mg/kg	U	UJ	07A			
609053	NWO-017-0043	Explosives	SO	2,4-Dinitrotoluene	0.014	mg/kg	U	UJ	07A	08A		
609053	NWO-017-0043	Explosives	SO	2,6-Dinitrotoluene	0.007	mg/kg	U	UJ	07A			
609053	NWO-017-0043	Explosives	SO	2-Amino-4,6-dinitrotoluene	0.01	mg/kg	U	UJ	07A	08A		
609053	NWO-017-0043	Explosives	SO	4-Amino-2,6-dinitrotoluene	0.006	mg/kg	U	UJ	07A	08A		
609053	NWO-017-0043	Explosives	SO	HMX	0.012	mg/kg	U	UJ	07A	08A		
609053	NWO-017-0043	Explosives	SO	m-Nitrotoluene	0.022	mg/kg	U	UJ	07A			
609053	NWO-017-0043	Explosives	SO	Nitrobenzene	0.024	mg/kg	J	J	08A	19	18	15
609053	NWO-017-0043	Explosives	SO	o-Nitrotoluene	0.009	mg/kg	U	UJ	07A			
609053	NWO-017-0043	Explosives	SO	p-Nitrotoluene	0.036	mg/kg	U	UJ	07A			
609053	NWO-017-0043	Explosives	SO	RDX	0.071	mg/kg	U	UJ	07A	08A		
609053	NWO-017-0043	Explosives	SO	Tetryl	0.004	mg/kg	U	UJ	07A			
609053	NWO-017-0043	Metals	SO	Strontium	62.6	mg/kg	D	J	19	12		
609053	NWO-017-5002	Metals	SO	Strontium	23.8	mg/kg	D	J	19	12		
609053	NWO-017-5002	Metals	SO	Thallium	0.32	mg/kg	JDB	U	06A			
609053	NWO-017-5003	Metals	SO	Strontium	21.8	mg/kg	D	J	19	12		
609053	NWO-017-5003	Metals	SO	Thallium	0.28	mg/kg	JDB	U	06A			
609053	NWO-017-5004	Metals	SO	Strontium	21.3	mg/kg	D	J	19	12		
609053	NWO-017-5004	Metals	SO	Thallium	0.25	mg/kg	JDB	U	06A			
609054	NWO-017-0039R	Explosives	SO	1,3,5-Trinitrobenzene	0.012	mg/kg	U	UJ	11A			
609054	NWO-017-0039R	Metals	SO	Strontium	78.4	mg/kg	D	J	19	12		
609054	NWO-017-0040R	Explosives	SO	1,3,5-Trinitrobenzene	0.012	mg/kg	U	UJ	11A			
609054	NWO-017-0040R	Metals	SO	Strontium	50.4	mg/kg	D	J	19	12		
609054	NWO-017-1009R	Explosives	SD	1,3,5-Trinitrobenzene	0.012	mg/kg	U	UJ	11A			
609054	NWO-017-1009R	Explosives	SD	Nitrobenzene	0.025	mg/kg	J	J	19	18	15	
609054	NWO-017-1009R	Metals	SD	Strontium	88	mg/kg	D	J	19	12		
609054	NWO-017-1010R	Explosives	SD	1,3,5-Trinitrobenzene	0.012	mg/kg	U	UJ	11A			
609054	NWO-017-1010R	Metals	SD	Strontium	107	mg/kg	D	J	19	12		

Table G-6

Summary of Negatively Impacted Sample Results Associated with Adverse QC Criteria
Camp Adair

SDG	Sample Number	Fraction	Matrix	Parameter	Result	Units	LQ	VQ	R1	R2	R3	R4
609054	NWO-017-5001	Metals	SO	Aluminum	54000	mg/kg	ED	J	19	13		
609054	NWO-017-5001	Metals	SO	Antimony	0.14	mg/kg	UND	UJ	08A			
609054	NWO-017-5001	Metals	SO	Barium	127	mg/kg	NDB	J	08A			
609054	NWO-017-5001	Metals	SO	Calcium	5770	mg/kg	ED	J	19	13		
609054	NWO-017-5001	Metals	SO	Chromium	243	mg/kg	EDB	J	19	13		
609054	NWO-017-5001	Metals	SO	Cobalt	80.6	mg/kg	EDB	J	19	13		
609054	NWO-017-5001	Metals	SO	Copper	133	mg/kg	NDB	J	08A			
609054	NWO-017-5001	Metals	SO	Iron	83100	mg/kg	ED	J	19	13		
609054	NWO-017-5001	Metals	SO	Manganese	2400	mg/kg	ED	J	19	13		
609054	NWO-017-5001	Metals	SO	Molybdenum	0.33	mg/kg	JND	J	15	08A		
609054	NWO-017-5001	Metals	SO	Nickel	96.8	mg/kg	NEDB	J	19	13	08A	
609054	NWO-017-5001	Metals	SO	Sodium	411	mg/kg	JND	J	15	08A		
609054	NWO-017-5001	Metals	SO	Strontium	36.6	mg/kg	D	J	19	12		
609054	NWO-017-5001	Metals	SO	Thallium	0.17	mg/kg	JDB	U	06A			
609054	NWO-017-5001	Metals	SO	Zinc	79.2	mg/kg	EDB	J	19	13		
609089	NWO-017-3008	Explosives	GW	1,3,5-Trinitrobenzene	0.044	ug/L	U	UJ	11A			
609089	NWO-017-3008	Explosives	GW	HMX	0.022	ug/L	U	UJ	11A			
609089	NWO-017-3008	Metals	GW	Aluminum	5.7	ug/L	J	U	06A			
609089	NWO-017-3008	Metals	GW	Cobalt	0.027	ug/L	JB	U	06B	15		
609089	NWO-017-3008	Metals	GW	Strontium	41	ug/L		J	19	12		
609089	NWO-017-3008	Metals	GW	Zinc	10.6	ug/L		U	06A			
609089	NWO-017-3008	Perchlorate	GW	Perchlorate	0.0612	ug/L	U	UJ	19	05B		
609093	NWO-017-3002	Perchlorate	GW	Perchlorate	0.0612	ug/L	U	UJ	19	05B		
609093	NWO-017-3009	Explosives	GW	1,3,5-Trinitrobenzene	0.043	ug/L	U	UJ	11A			
609093	NWO-017-3009	Explosives	GW	HMX	0.021	ug/L	U	UJ	11A			
609093	NWO-017-3009	Metals	GW	Strontium	63.3	ug/L		J	19	12		
609093	NWO-017-3009	Metals	GW	Zinc	18.4	ug/L		U	06A			
609093	NWO-017-3009	Perchlorate	GW	Perchlorate	0.0612	ug/L	U	UJ	19	05B		
609093	NWO-017-3010	Explosives	GW	1,3,5-Trinitrobenzene	0.044	ug/L	U	UJ	11A			
609093	NWO-017-3010	Explosives	GW	HMX	0.022	ug/L	U	UJ	11A			
609093	NWO-017-3010	Metals	GW	Aluminum	6.1	ug/L	J	U	06A			
609093	NWO-017-3010	Metals	GW	Barium	0.79	ug/L	JB	U	06A			
609093	NWO-017-3010	Metals	GW	Strontium	115	ug/L		J	19	12		
609093	NWO-017-3010	Metals	GW	Zinc	9.7	ug/L	J	U	06A			
609093	NWO-017-3010	Perchlorate	GW	Perchlorate	0.0612	ug/L	U	UJ	19	05B		
609093	NWO-017-6001	Metals	GW	Strontium	73.8	ug/L		J	19	12		
609093	NWO-017-6001	Perchlorate	GW	Perchlorate	0.0612	ug/L	U	UJ	19	05B		
609118	NWO-017-3005	Explosives	GW	1,3,5-Trinitrobenzene	0.042	ug/L	U	UJ	08B	08A		
609118	NWO-017-3005	Explosives	GW	1,3-Dinitrobenzene	0.038	ug/L	J	J	15	08A		
609118	NWO-017-3005	Explosives	GW	2,4,6-Trinitrotoluene	0.077	ug/L	J	J	15	18	08A	08B
609118	NWO-017-3005	Explosives	GW	2,4-Dinitrotoluene	0.027	ug/L	J	J	15	18	08A	08B
609118	NWO-017-3005	Explosives	GW	2,6-Dinitrotoluene	0.04	ug/L	U	UJ	08B			
609118	NWO-017-3005	Explosives	GW	2-Amino-4,6-dinitrotoluene	0.072	ug/L	J	J	15	18	08B	

Table G-6

Summary of Negatively Impacted Sample Results Associated with Adverse QC Criteria
Camp Adair

SDG	Sample Number	Fraction	Matrix	Parameter	Result	Units	LQ	VQ	R1	R2	R3	R4
609118	NWO-017-3005	Explosives	GW	4-Amino-2,6-dinitrotoluene	0.079	ug/L	J	J	15	18	08B	
609118	NWO-017-3005	Explosives	GW	HMX	0.14	ug/L	J	J	15	18	11A	08A
609118	NWO-017-3005	Explosives	GW	m-Nitrotoluene	0.11	ug/L	U	UJ	08B			
609118	NWO-017-3005	Explosives	GW	Nitrobenzene	0.017	ug/L	U	UJ	08A			
609118	NWO-017-3005	Explosives	GW	o-Nitrotoluene	0.076	ug/L	U	UJ	08B			
609118	NWO-017-3005	Explosives	GW	p-Nitrotoluene	0.079	ug/L	U	UJ	08B			
609118	NWO-017-3005	Explosives	GW	RDX	0.08	ug/L	U	UJ	08A			
609118	NWO-017-3005	Explosives	GW	Tetryl	0.035	ug/L	U	UJ	08B	08A		
609118	NWO-017-3005	Metals	GW	Strontium	197	ug/L		J	19	12		
609118	NWO-017-3006	Explosives	GW	HMX	0.021	ug/L	U	UJ	11A			
609118	NWO-017-3006	Metals	GW	Aluminum	38	ug/L	J	U	06A			
609118	NWO-017-3006	Metals	GW	Strontium	60.7	ug/L		J	19	12		
609118	NWO-017-3007	Explosives	GW	HMX	0.021	ug/L	U	UJ	11A			
609118	NWO-017-3007	Metals	GW	Aluminum	22.3	ug/L	J	U	06A			
609118	NWO-017-3007	Metals	GW	Strontium	83.5	ug/L		J	19	12		
609118	NWO-017-3011	Explosives	GW	HMX	0.022	ug/L	U	UJ	11A			
609118	NWO-017-3011	Metals	GW	Aluminum	11.8	ug/L	J	UJ	19	17	06A	
609118	NWO-017-3011	Metals	GW	Iron	16.3	ug/L	J	J	19	17	15	
609118	NWO-017-3011	Metals	GW	Nickel	0.29	ug/L	JB	J	19	17	15	
609118	NWO-017-3011	Metals	GW	Strontium	101	ug/L		J	19	12		
609118	NWO-017-3011	Metals	GW	Zinc	18.2	ug/L		J	19	17		
609118	NWO-017-3011 FD	Explosives	GW	HMX	0.021	ug/L	U	UJ	11A			
609118	NWO-017-3011 FD	Metals	GW	Aluminum	7.4	ug/L	J	UJ	19	17	06A	
609118	NWO-017-3011 FD	Metals	GW	Iron	30.1	ug/L	J	J	19	17	15	
609118	NWO-017-3011 FD	Metals	GW	Nickel	1.1	ug/L	B	J	19	17		
609118	NWO-017-3011 FD	Metals	GW	Strontium	98.3	ug/L		J	19	12		
609118	NWO-017-3011 FD	Metals	GW	Zinc	9.2	ug/L	J	J	19	17	15	
609118	NWO-017-6002	Metals	GW	Aluminum	22.9	ug/L	J	U	06A			
609118	NWO-017-6002	Metals	GW	Barium	0.95	ug/L	JB	U	06A			
609118	NWO-017-6002	Metals	GW	Strontium	1.8	ug/L	J	J	19	12	15	

SDG - sample delivery group
SO - soil
SD - sediment
GW - groundwater

* LQ - laboratory qualifier
* VQ - validation qualifier

** R1 - reason code no. 1
** R2 - reason code no. 2
** R3 - reason code no. 3
** R4 - reason code no. 4

* See Table G-4 for laboratory and data validation qualifier definitions
** See Table G-5 for data validation reason code definitions

Table G-7a

Comparison of Range Complex No. 4 Groundwater Results to Site Inspection Screening Values
Camp Adair

Location						**017A010**			
Sample Date						**20-Sep-06**			
Sample Number						**NWO-017-3001**			
Sample Purpose						**REG**			
Fraction	**Parameter**	**Filtered**	**Units**	**EPA Region 9 PRGs - Tap Water**	**Federal Drinking Water Criteria MCLs**	**Result**	**PQL**	**MDL**	**VQ**
Metals	Lead	N	ug/L	No criteria	15	0.39	2	0.18	J
Perchlorate	Perchlorate	Y	ug/L	3.6	No criteria	0.0612	0.2	0.0612	U

[**Bold**] - Result exceeds EPA Region 9 PRGs - Tap Water
[*Italicized*] - Result exceeds Federal Drinking Water Criteria MCLs

PRG - Preliminary Remediation Goals
REG - regular sample
PQL - practical quantitation limit
MDL - method detection limit
ug/l - microgram per liter
VQ - validation qualifier

Validation Qualifier Definitions
U - Not detected. The compound/analyte was analyzed for, but not detected above the associated reporting limit
J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed
R - The reported sample results are rejected due to the following: 1. Severe deficiencies in the supporting quality control data, 2. Anomalies noted in the sampling and/or analysis process which could affect the validity of the reported data, 3. The presence or absence of the constituent cannot be verified based on the data provided, 4. To indicate not to use a particular result in the event of a reanalysis

UJ - The compound/analyte was analyzed for, but not detected above the established reporting limit. However, review and evaluation of supporting QC data and/or sampling and analysis process have indicated that the reporting limit may be inaccurate or imprecise. The nondetect result should be estimated

Table G-7b

Comparison of Range Complex No. 5 Groundwater Results to Site Inspection Screening Values
Camp Adair

Location						**017A015**			
Sample Date						**14-Sep-06**			
Sample Number						**NWO-017-3002**			
Sample Purpose						**REG**			
Fraction	**Parameter**	**Filtered**	**Units**	**EPA Region 9 PRGs - Tap Water**	**Federal Drinking Water Criteria MCLs**	**Result**	**PQL**	**MDL**	**VQ**
Metals	Lead	N	ug/L	No criteria	15	0.51	2	0.18	J
Perchlorate	Perchlorate	Y	ug/L	3.6	No criteria	0.0612	0.2	0.0612	UJ

[**Bold**] - Result exceeds EPA Region 9 PRGs - Tap Water
[*Italicized*] - Result exceeds Federal Drinking Water Criteria MCLs

PRG - Preliminary Remediation Goals
REG - regular sample
PQL - practical quantitation limit
MDL - method detection limit
ug/l - microgram per liter
VQ - validation qualifier

Validation Qualifier Definitions
U - Not detected. The compound/analyte was analyzed for, but not detected above the associated reporting limit
J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed
R - The reported sample results are rejected due to the following: 1. Severe deficiencies in the supporting quality control data, 2. Anomalies noted in the sampling and/or analysis process which could affect the validity of the reported data, 3. The presence or absence of the constituent cannot be verified based on the data provided, 4. To indicate not to use a particular result in the event of a reanalysis
UJ - The compound/analyte was analyzed for, but not detected above the established reporting limit. However, review and evaluation of supporting QC data and/or sampling and analysis process have indicated that the reporting limit may be inaccurate or imprecise. The nondetect result should be estimated

Table G-7c

Comparison of Range Complex No. 6 Groundwater Results to Site Inspection Screening Values
Camp Adair

Location						**017A020**				**017A020**			
Sample Date						**12-Sep-06**				**12-Sep-06**			
Sample Number						**NWO-017-3003**				**NWO-017-3004**			
Sample Purpose						**REG**				**FD**			
Fraction	**Parameter**	**Filtered**	**Units**	**EPA Region 9 PRGs - Tap Water**	**Federal Drinking Water Criteria MCLs**	**Result**	**PQL**	**MDL**	**VQ**	**Result**	**PQL**	**MDL**	**VQ**
Metals	Lead	N	ug/L	No criteria	15	0.46	2	0.18	J	0.36	2	0.18	J

[**Bold**] - Result exceeds EPA Region 9 PRGs - Tap Water
[*Italicized*] - Result exceeds Federal Drinking Water Criteria MCLs

PRG - Preliminary Remediation Goals
REG - regular sample
PQL - practical quantitation limit
MDL - method detection limit
ug/l - microgram per liter
VQ - validation qualifier

Validation Qualifier Definitions
U - Not detected. The compound/analyte was analyzed for, but not detected above the associated reporting limit
J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample
R - The reported sample results are rejected due to the following: 1. Severe deficiencies in the supporting quality control data, 2. Anomalies noted in the sampling and/or analysis process which could affect the validity of the reported data, 3. The presence or absence of the constituent cannot be verified based on the data provided, 4. To indicate not to use a particular result in the event of a reanalysis
UJ - The compound/analyte was analyzed for, but not detected above the established reporting limit. However, review and evaluation of supporting QC data and/or sampling and analysis process have indicated that the reporting limit may be inaccurate or imprecise. The nondetect result should be estimated

Table G-7d

Comparison of Range Complex No. 1 Groundwater Results to Site Inspection Screening Values
Camp Adair

Location						**017A030**			
Sample Date						**20-Sep-06**			
Sample Number						**NWO-017-3005**			
Sample Purpose						**REG**			
Fraction	**Parameter**	**Filtered**	**Units**	**EPA Region 9 PRGs - Tap Water**	**Federal Drinking Water Criteria MCLs**	**Result**	**PQL**	**MDL**	**VQ**
Explosives	1,3,5-Trinitrobenzene	N	ug/L	1100	No criteria	0.042	0.2	0.042	UJ
Explosives	1,3-Dinitrobenzene	N	ug/L	3.6	No criteria	0.038	0.2	0.028	J
Explosives	2,4,6-Trinitrotoluene	N	ug/L	2.2	No criteria	0.077	0.2	0.05	J
Explosives	2,4-Dinitrotoluene	N	ug/L	.099	No criteria	0.027	0.2	0.022	J
Explosives	2,6-Dinitrotoluene	N	ug/L	.099	No criteria	0.04	0.2	0.04	UJ
Explosives	2-Amino-4,6-dinitrotoluene	N	ug/L	7.3	No criteria	0.072	0.2	0.044	J
Explosives	4-Amino-2,6-Dinitrotoluene	N	ug/L	7.3	No criteria	0.079	0.2	0.034	J
Explosives	HMX	N	ug/L	1800	No criteria	0.14	0.4	0.021	J
Explosives	3-Nitrotoluene	N	ug/L	120	No criteria	0.11	0.4	0.11	UJ
Explosives	Nitrobenzene	N	ug/L	3.4	No criteria	0.017	0.2	0.017	UJ
Explosives	Nitroglycerine	N	ug/L	4.8	No criteria	0.2	20	0.2	U
Explosives	2-Nitrotoluene	N	ug/L	.049	No criteria	0.076	0.4	0.076	UJ
Explosives	PETN	N	ug/L	No criteria	No criteria	0.004	0.051	0.004	U
Explosives	4-Nitrotoluene	N	ug/L	.66	No criteria	0.079	0.4	0.079	UJ
Explosives	RDX	N	ug/L	.61	No criteria	0.08	0.4	0.08	UJ
Explosives	Tetryl	N	ug/L	360	No criteria	0.035	0.4	0.035	UJ
Metals	Aluminum	N	ug/L	36000	50	5.5	100	5.5	U
Metals	Antimony	N	ug/L	No criteria	No criteria	0.13	1	0.13	U
Metals	Barium	N	ug/L	No criteria	No criteria	10	5	0.15	
Metals	Cadmium	N	ug/L	18	5	0.17	0.5	0.17	U
Metals	Chromium	N	ug/L	110	100	1.3	2	1.3	U
Metals	Cobalt	N	ug/L	730	No criteria	0.016	1	0.016	U
Metals	Copper	N	ug/L	1500	1000	2.3	2	0.43	
Metals	Iron	N	ug/L	11000	300	36.9	50	5.5	J
Metals	Lead	N	ug/L	No criteria	15	0.18	2	0.18	U
Metals	Magnesium	N	ug/L	No criteria	No criteria	7500	100	4.8	
Metals	Manganese	N	ug/L	880	50	32.1	2	0.39	
Metals	Mercury	N	ug/L	11	2	0.034	0.2	0.034	U
Metals	Molybdenum	N	ug/L	180	No criteria	0.45	5	0.12	J
Metals	Nickel	N	ug/L	730	No criteria	1	1	0.15	
Metals	Strontium	N	ug/L	22000	No criteria	197	2	0.17	J
Metals	Titanium	N	ug/L	150000	No criteria	0.9	2	0.29	J
Metals	Zinc	N	ug/L	11000	5000	13.8	10	1.8	
Perchlorate	Perchlorate	Y	ug/L	3.6	No criteria	0.0612	0.2	0.0612	U

[**Bold**] - Result exceeds EPA Region 9 PRGs - Tap Water
[*Italicized*] - Result exceeds Federal Drinking Water Criteria MCLs

PRG - Preliminary Remediation Goals
REG - regular sample
PQL - practical quantitation limit
MDL - method detection limit
ug/l - microgram per liter
VQ - validation qualifier

HMX - octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
PETN - Pentaerythritol tetranitrate
RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine
Tetryl - methyl-2,4,6-trinitrophenylnitramine

Validation Qualifier Definitions
U - Not detected. The compound/analyte was analyzed for, but not detected above the associated reporting limit
J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed
R - The reported sample results are rejected due to the following: 1. Severe deficiencies in the supporting quality control data, 2. Anomalies noted in the sampling and/or analysis process which could affect the validity of the reported data, 3. The presence or absence of the constituent cannot be verified based on the data provided, 4. To indicate not to use a particular result in the event of a reanalysis
UJ - The compound/analyte was analyzed for, but not detected above the established reporting limit. However, review and evaluation of supporting QC data and/or sampling and analysis process have indicated that the reporting limit may be inaccurate or imprecise. The nondetect result should be estimated

Table G-7e

Comparison of Range Complex No. 2 Groundwater Results to Site Inspection Screening Values
Camp Adair

Location						017A040				017A041			
Sample Date						19-Sep-06				19-Sep-06			
Sample Number						NWO-017-3006				NWO-017-3007			
Sample Purpose						REG				REG			
Fraction	**Parameter**	**Filtered**	**Units**	**EPA Region 9 PRGs - Tap Water**	**Federal Drinking Water Criteria MCLs**	**Result**	**PQL**	**MDL**	**VQ**	**Result**	**PQL**	**MDL**	**VQ**
Explosives	1,3,5-Trinitrobenzene	N	ug/L	1100	No criteria	0.042	0.2	0.042	U	0.042	0.2	0.042	U
Explosives	1,3-Dinitrobenzene	N	ug/L	3.6	No criteria	0.028	0.2	0.028	U	0.028	0.2	0.028	U
Explosives	2,4,6-Trinitrotoluene	N	ug/L	2.2	No criteria	0.05	0.2	0.05	U	0.05	0.2	0.05	U
Explosives	2,4-Dinitrotoluene	N	ug/L	.099	No criteria	0.022	0.2	0.022	U	0.022	0.2	0.022	U
Explosives	2,6-Dinitrotoluene	N	ug/L	.099	No criteria	0.041	0.2	0.041	U	0.04	0.2	0.04	U
Explosives	2-Amino-4,6-dinitrotoluene	N	ug/L	7.3	No criteria	0.044	0.2	0.044	U	0.044	0.2	0.044	U
Explosives	4-Amino-2,6-Dinitrotoluene	N	ug/L	7.3	No criteria	0.034	0.2	0.034	U	0.034	0.2	0.034	U
Explosives	HMX	N	ug/L	1800	No criteria	0.021	0.41	0.021	UJ	0.021	0.4	0.021	UJ
Explosives	3-Nitrotoluene	N	ug/L	120	No criteria	0.11	0.41	0.11	U	0.11	0.4	0.11	U
Explosives	Nitrobenzene	N	ug/L	3.4	No criteria	0.017	0.2	0.017	U	0.017	0.2	0.017	U
Explosives	Nitroglycerine	N	ug/L	4.8	No criteria	0.2	20	0.2	U	0.2	20	0.2	U
Explosives	2-Nitrotoluene	N	ug/L	.049	No criteria	0.077	0.41	0.077	U	0.076	0.4	0.076	U
Explosives	PETN	N	ug/L	No criteria	No criteria	0.004	0.051	0.004	U	0.004	0.051	0.004	U
Explosives	4-Nitrotoluene	N	ug/L	.66	No criteria	0.079	0.41	0.079	U	0.079	0.4	0.079	U
Explosives	RDX	N	ug/L	.61	No criteria	0.081	0.41	0.081	U	0.08	0.4	0.08	U
Explosives	Tetryl	N	ug/L	360	No criteria	0.035	0.41	0.035	U	0.035	0.4	0.035	U
Metals	Aluminum	N	ug/L	36000	50	38	100	5.5	U	22.3	100	5.5	U
Metals	Antimony	N	ug/L	No criteria	No criteria	0.21	1	0.13	J	0.13	1	0.13	U
Metals	Barium	N	ug/L	No criteria	No criteria	22	5	0.15		35.9	5	0.15	
Metals	Cadmium	N	ug/L	18	5	0.17	0.5	0.17	U	0.17	0.5	0.17	U
Metals	Chromium	N	ug/L	110	100	1.3	2	1.3	U	1.3	2	1.3	U
Metals	Cobalt	N	ug/L	730	No criteria	0.61	1	0.016	J	1.2	1	0.016	
Metals	Copper	N	ug/L	1500	1000	1.4	2	0.43	J	2.7	2	0.43	
Metals	Iron	N	ug/L	11000	300	893	50	5.5		32.3	50	5.5	J
Metals	Lead	N	ug/L	No criteria	15	0.21	2	0.18	J	0.38	2	0.18	J
Metals	Magnesium	N	ug/L	No criteria	No criteria	1420	100	4.8		4180	100	4.8	
Metals	Manganese	N	ug/L	880	50	28.2	2	0.39		310	2	0.39	
Metals	Mercury	N	ug/L	11	2	0.034	0.2	0.034	U	0.034	0.2	0.034	U
Metals	Molybdenum	N	ug/L	180	No criteria	5.8	5	0.12		0.18	5	0.12	J
Metals	Nickel	N	ug/L	730	No criteria	3.8	1	0.15		3.7	1	0.15	
Metals	Strontium	N	ug/L	22000	No criteria	60.7	2	0.17	J	83.5	2	0.17	J
Metals	Titanium	N	ug/L	150000	No criteria	0.87	2	0.29	J	0.97	2	0.29	J
Metals	Zinc	N	ug/L	11000	5000	11.7	10	1.8		10.4	10	1.8	
Perchlorate	Perchlorate	Y	ug/L	3.6	No criteria	0.0612	0.2	0.0612	U	0.0612	0.2	0.0612	U

[**Bold**] - Result exceeds EPA Region 9 PRGs - Tap Water
[*Italicized*] - Result exceeds Federal Drinking Water Criteria MCLs

PRG - Preliminary Remediation Goals
REG - regular sample
PQL - practical quantitation limit
MDL - method detection limit
ug/l - microgram per liter
VQ - validation qualifier

HMX - octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
PETN - Pentaerythritol tetranitrate
RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine
Tetryl - methyl-2,4,6-trinitrophenylnitramine

Validation Qualifier Definitions
U - Not detected. The compound/analyte was analyzed for, but not detected above the associated reporting limit
J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample
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UJ - The compound/analyte was analyzed for, but not detected above the established reporting limit. However, review and evaluation of supporting QC data and/or sampling and analysis process have indicated that the reporting limit may be inaccurate or imprecise. The nondetect result should be estimated

Table G-7f

Comparison of Bombing Target No. 1 Groundwater Results to Site Inspection Screening Values
Camp Adair

Location						**017A044**			
Sample Date						**13-Sep-06**			
Sample Number						**NWO-017-3008**			
Sample Purpose						**REG**			
Fraction	**Parameter**	**Filtered**	**Units**	**EPA Region 9 PRGs - Tap Water**	**Federal Drinking Water Criteria MCLs**	**Result**	**PQL**	**MDL**	**VQ**
Explosives	1,3,5-Trinitrobenzene	N	ug/L	1100	No criteria	0.044	0.21	0.044	UJ
Explosives	1,3-Dinitrobenzene	N	ug/L	3.6	No criteria	0.029	0.21	0.029	U
Explosives	2,4,6-Trinitrotoluene	N	ug/L	2.2	No criteria	0.052	0.21	0.052	U
Explosives	2,4-Dinitrotoluene	N	ug/L	.099	No criteria	0.023	0.21	0.023	U
Explosives	2,6-Dinitrotoluene	N	ug/L	.099	No criteria	0.042	0.21	0.042	U
Explosives	2-Amino-4,6-dinitrotoluene	N	ug/L	7.3	No criteria	0.045	0.21	0.045	U
Explosives	4-Amino-2,6-Dinitrotoluene	N	ug/L	7.3	No criteria	0.036	0.21	0.036	U
Explosives	HMX	N	ug/L	1800	No criteria	0.022	0.42	0.022	UJ
Explosives	3-Nitrotoluene	N	ug/L	120	No criteria	0.11	0.42	0.11	U
Explosives	Nitrobenzene	N	ug/L	3.4	No criteria	0.018	0.21	0.018	U
Explosives	Nitroglycerine	N	ug/L	4.8	No criteria	0.21	21	0.21	U
Explosives	2-Nitrotoluene	N	ug/L	.049	No criteria	0.079	0.42	0.079	U
Explosives	PETN	N	ug/L	No criteria	No criteria	0.081	1.1	0.081	U
Explosives	4-Nitrotoluene	N	ug/L	.66	No criteria	0.082	0.42	0.082	U
Explosives	RDX	N	ug/L	.61	No criteria	0.084	0.42	0.084	U
Explosives	Tetryl	N	ug/L	360	No criteria	0.036	0.42	0.036	U
Metals	Aluminum	N	ug/L	36000	50	5.7	100	5.5	U
Metals	Antimony	N	ug/L	No criteria	No criteria	0.13	1	0.13	U
Metals	Barium	N	ug/L	No criteria	No criteria	4	5	0.15	J
Metals	Cadmium	N	ug/L	18	5	0.17	0.5	0.17	U
Metals	Chromium	N	ug/L	110	100	1.3	2	1.3	U
Metals	Cobalt	N	ug/L	730	No criteria	0.027	1	0.016	U
Metals	Copper	N	ug/L	1500	1000	1	2	0.43	J
Metals	Iron	N	ug/L	11000	300	22.9	50	5.5	J
Metals	Lead	N	ug/L	No criteria	15	0.81	2	0.18	J
Metals	Magnesium	N	ug/L	No criteria	No criteria	1140	100	4.8	
Metals	Manganese	N	ug/L	880	50	3	2	0.39	
Metals	Mercury	N	ug/L	11	2	0.034	0.2	0.034	U
Metals	Molybdenum	N	ug/L	180	No criteria	0.57	5	0.12	J
Metals	Nickel	N	ug/L	730	No criteria	0.9	1	0.15	J
Metals	Strontium	N	ug/L	22000	No criteria	41	2	0.17	J
Metals	Titanium	N	ug/L	150000	No criteria	1	2	0.29	J
Metals	Zinc	N	ug/L	11000	5000	10.6	10	1.8	U
Perchlorate	Perchlorate	Y	ug/L	3.6	No criteria	0.0612	0.2	0.0612	UJ

[**Bold**] - Result exceeds EPA Region 9 PRGs - Tap Water
[*Italicized*] - Result exceeds Federal Drinking Water Criteria MCLs

PRG - Preliminary Remediation Goals
REG - regular sample
PQL - practical quantitation limit
MDL - method detection limit
ug/l - microgram per liter
VQ - validation qualifier

HMX - octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
PETN - Pentaerythritol tetranitrate
RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine
Tetryl - methyl-2,4,6-trinitrophenylnitramine

Validation Qualifier Definitions
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Table G-7g

Comparison of Range Complex No. 3 Groundwater Results to Site Inspection Screening Values
Camp Adair

Location						**017A050**			
Sample Date						**14-Sep-06**			
Sample Number						**NWO-017-3009**			
Sample Purpose						**REG**			
Fraction	**Parameter**	**Filtered**	**Units**	**EPA Region 9 PRGs - Tap Water**	**Federal Drinking Water Criteria MCLs**	**Result**	**PQL**	**MDL**	**VQ**
Explosives	1,3,5-Trinitrobenzene	N	ug/L	1100	No criteria	0.043	0.21	0.043	UJ
Explosives	1,3-Dinitrobenzene	N	ug/L	3.6	No criteria	0.029	0.21	0.029	U
Explosives	2,4,6-Trinitrotoluene	N	ug/L	2.2	No criteria	0.051	0.21	0.051	U
Explosives	2,4-Dinitrotoluene	N	ug/L	.099	No criteria	0.022	0.21	0.022	U
Explosives	2,6-Dinitrotoluene	N	ug/L	.099	No criteria	0.041	0.21	0.041	U
Explosives	2-Amino-4,6-dinitrotoluene	N	ug/L	7.3	No criteria	0.045	0.21	0.045	U
Explosives	4-Amino-2,6-Dinitrotoluene	N	ug/L	7.3	No criteria	0.035	0.21	0.035	U
Explosives	HMX	N	ug/L	1800	No criteria	0.021	0.41	0.021	UJ
Explosives	3-Nitrotoluene	N	ug/L	120	No criteria	0.11	0.41	0.11	U
Explosives	Nitrobenzene	N	ug/L	3.4	No criteria	0.018	0.21	0.018	U
Explosives	Nitroglycerine	N	ug/L	4.8	No criteria	0.21	21	0.21	U
Explosives	2-Nitrotoluene	N	ug/L	.049	No criteria	0.078	0.41	0.078	U
Explosives	PETN	N	ug/L	No criteria	No criteria	0.079	1	0.079	U
Explosives	4-Nitrotoluene	N	ug/L	.66	No criteria	0.08	0.41	0.08	U
Explosives	RDX	N	ug/L	.61	No criteria	0.082	0.41	0.082	U
Explosives	Tetryl	N	ug/L	360	No criteria	0.036	0.41	0.036	U
Metals	Aluminum	N	ug/L	36000	50	5.5	100	5.5	U
Metals	Antimony	N	ug/L	No criteria	No criteria	0.13	1	0.13	U
Metals	Barium	N	ug/L	No criteria	No criteria	14.7	5	0.15	
Metals	Cadmium	N	ug/L	18	5	0.17	0.5	0.17	U
Metals	Chromium	N	ug/L	110	100	1.3	2	1.3	U
Metals	Cobalt	N	ug/L	730	No criteria	0.018	1	0.016	J
Metals	Copper	N	ug/L	1500	1000	4	2	0.43	
Metals	Iron	N	ug/L	11000	300	28.7	50	5.5	J
Metals	Lead	N	ug/L	No criteria	15	0.41	2	0.18	J
Metals	Magnesium	N	ug/L	No criteria	No criteria	1760	100	4.8	
Metals	Manganese	N	ug/L	880	50	16.2	2	0.39	
Metals	Mercury	N	ug/L	11	2	0.034	0.2	0.034	U
Metals	Molybdenum	N	ug/L	180	No criteria	0.67	5	0.12	J
Metals	Nickel	N	ug/L	730	No criteria	1.1	1	0.15	
Metals	Strontium	N	ug/L	22000	No criteria	63.3	2	0.17	J
Metals	Titanium	N	ug/L	150000	No criteria	1	2	0.29	J
Metals	Zinc	N	ug/L	11000	5000	18.4	10	1.8	U
Perchlorate	Perchlorate	Y	ug/L	3.6	No criteria	0.0612	0.2	0.0612	UJ

[**Bold**] - Result exceeds EPA Region 9 PRGs - Tap Water
[*Italicized*] - Result exceeds Federal Drinking Water Criteria MCLs

PRG - Preliminary Remediation Goals
REG - regular sample
PQL - practical quantitation limit
MDL - method detection limit
ug/l - microgram per liter
VQ - validation qualifier

HMX - octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
PETN - Pentaerythritol tetranitrate
RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine
Tetryl - methyl-2,4,6-trinitrophenylnitramine

Validation Qualifier Definitions
U - Not detected. The compound/analyte was analyzed for, but not detected above the associated reporting limit
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UJ - The compound/analyte was analyzed for, but not detected above the established reporting limit. However, review and evaluation of supporting QC data and/or sampling and analysis process have indicated that the reporting limit may be inaccurate or imprecise. The nondetect result should be estimated

Table G-7h

Comparison of Mortar Range Groundwater Results to Site Inspection Screening Values
Camp Adair

Location						**017A054**			
Sample Date						**14-Sep-06**			
Sample Number						**NWO-017-3010**			
Sample Purpose						**REG**			
Fraction	**Parameter**	**Filtered**	**Units**	**EPA Region 9 PRGs - Tap Water**	**Federal Drinking Water Criteria MCLs**	**Result**	**PQL**	**MDL**	**VQ**
Explosives	1,3,5-Trinitrobenzene	N	ug/L	1100	No criteria	0.044	0.21	0.044	UJ
Explosives	1,3-Dinitrobenzene	N	ug/L	3.6	No criteria	0.029	0.21	0.029	U
Explosives	2,4,6-Trinitrotoluene	N	ug/L	2.2	No criteria	0.052	0.21	0.052	U
Explosives	2,4-Dinitrotoluene	N	ug/L	.099	No criteria	0.023	0.21	0.023	U
Explosives	2,6-Dinitrotoluene	N	ug/L	.099	No criteria	0.042	0.21	0.042	U
Explosives	2-Amino-4,6-dinitrotoluene	N	ug/L	7.3	No criteria	0.045	0.21	0.045	U
Explosives	4-Amino-2,6-Dinitrotoluene	N	ug/L	7.3	No criteria	0.036	0.21	0.036	U
Explosives	HMX	N	ug/L	1800	No criteria	0.022	0.42	0.022	UJ
Explosives	3-Nitrotoluene	N	ug/L	120	No criteria	0.11	0.42	0.11	U
Explosives	Nitrobenzene	N	ug/L	3.4	No criteria	0.018	0.21	0.018	U
Explosives	Nitroglycerine	N	ug/L	4.8	No criteria	0.21	21	0.21	U
Explosives	2-Nitrotoluene	N	ug/L	.049	No criteria	0.079	0.42	0.079	U
Explosives	PETN	N	ug/L	No criteria	No criteria	0.081	1.1	0.081	U
Explosives	4-Nitrotoluene	N	ug/L	.66	No criteria	0.082	0.42	0.082	U
Explosives	RDX	N	ug/L	.61	No criteria	0.084	0.42	0.084	U
Explosives	Tetryl	N	ug/L	360	No criteria	0.036	0.42	0.036	U
Metals	Aluminum	N	ug/L	36000	50	6.1	100	5.5	U
Metals	Antimony	N	ug/L	No criteria	No criteria	0.13	1	0.13	U
Metals	Barium	N	ug/L	No criteria	No criteria	0.79	5	0.15	U
Metals	Cadmium	N	ug/L	18	5	0.17	0.5	0.17	U
Metals	Chromium	N	ug/L	110	100	1.3	2	1.3	U
Metals	Cobalt	N	ug/L	730	No criteria	0.016	1	0.016	U
Metals	Copper	N	ug/L	1500	1000	1.4	2	0.43	J
Metals	Iron	N	ug/L	11000	300	94.7	50	5.5	
Metals	Lead	N	ug/L	No criteria	15	0.4	2	0.18	J
Metals	Magnesium	N	ug/L	No criteria	No criteria	13000	100	4.8	
Metals	Manganese	N	ug/L	880	50	39.2	2	0.39	
Metals	Mercury	N	ug/L	11	2	0.034	0.2	0.034	U
Metals	Molybdenum	N	ug/L	180	No criteria	0.33	5	0.12	J
Metals	Nickel	N	ug/L	730	No criteria	1.1	1	0.15	
Metals	Strontium	N	ug/L	22000	No criteria	115	2	0.17	J
Metals	Titanium	N	ug/L	150000	No criteria	2.3	2	0.29	
Metals	Zinc	N	ug/L	11000	5000	9.7	10	1.8	U
Perchlorate	Perchlorate	Y	ug/L	3.6	No criteria	0.0612	0.2	0.0612	UJ

[**Bold**] - Result exceeds EPA Region 9 PRGs - Tap Water
[*Italicized*] - Result exceeds Federal Drinking Water Criteria MCLs

PRG - Preliminary Remediation Goals
REG - regular sample
PQL - practical quantitation limit
MDL - method detection limit
ug/l - microgram per liter
VQ - validation qualifier

HMX - octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
PETN - Pentaerythritol tetranitrate
RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine
Tetryl - methyl-2,4,6-trinitrophenylnitramine

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UJ - The compound/analyte was analyzed for, but not detected above the established reporting limit. However, review and evaluation of supporting QC data and/or sampling and analysis process have indicated that the reporting limit may be inaccurate or imprecise. The nondetect result should be estimated

Table G-7i

Comparison of Moving Target Range No. 75 Groundwater Results to Site Inspection Screening Values
Camp Adair

Location						017A058				017A058			
Sample Date						20-Sep-06				20-Sep-06			
Sample Number						NWO-017-3011				NWO-017-3011 FD			
Sample Purpose						REG				FD			
Fraction	**Parameter**	**Filtered**	**Units**	**EPA Region 9 PRGs - Tap Water**	**Federal Drinking Water Criteria MCLs**	**Result**	**PQL**	**MDL**	**VQ**	**Result**	**PQL**	**MDL**	**VQ**
Explosives	1,3,5-Trinitrobenzene	N	ug/L	1100	No criteria	0.044	0.21	0.044	U	0.042	0.2	0.042	U
Explosives	1,3-Dinitrobenzene	N	ug/L	3.6	No criteria	0.029	0.21	0.029	U	0.028	0.2	0.028	U
Explosives	2,4,6-Trinitrotoluene	N	ug/L	2.2	No criteria	0.052	0.21	0.052	U	0.05	0.2	0.05	U
Explosives	2,4-Dinitrotoluene	N	ug/L	.099	No criteria	0.023	0.21	0.023	U	0.022	0.2	0.022	U
Explosives	2,6-Dinitrotoluene	N	ug/L	.099	No criteria	0.042	0.21	0.042	U	0.04	0.2	0.04	U
Explosives	2-Amino-4,6-dinitrotoluene	N	ug/L	7.3	No criteria	0.045	0.21	0.045	U	0.044	0.2	0.044	U
Explosives	4-Amino-2,6-Dinitrotoluene	N	ug/L	7.3	No criteria	0.036	0.21	0.036	U	0.034	0.2	0.034	U
Explosives	HMX	N	ug/L	1800	No criteria	0.022	0.42	0.022	UJ	0.021	0.4	0.021	UJ
Explosives	3-Nitrotoluene	N	ug/L	120	No criteria	0.11	0.42	0.11	U	0.11	0.4	0.11	U
Explosives	Nitrobenzene	N	ug/L	3.4	No criteria	0.018	0.21	0.018	U	0.017	0.2	0.017	U
Explosives	Nitroglycerine	N	ug/L	4.8	No criteria	0.21	21	0.21	U	0.2	20	0.2	U
Explosives	2-Nitrotoluene	N	ug/L	.049	No criteria	0.079	0.42	0.079	U	0.076	0.4	0.076	U
Explosives	PETN	N	ug/L	No criteria	No criteria	0.004	0.053	0.004	U	0.004	0.051	0.004	U
Explosives	4-Nitrotoluene	N	ug/L	.66	No criteria	0.082	0.42	0.082	U	0.079	0.4	0.079	U
Explosives	RDX	N	ug/L	.61	No criteria	0.084	0.42	0.084	U	0.08	0.4	0.08	U
Explosives	Tetryl	N	ug/L	360	No criteria	0.036	0.42	0.036	U	0.035	0.4	0.035	U
Metals	Aluminum	N	ug/L	36000	50	11.8	100	5.5	UJ	7.4	100	5.5	UJ
Metals	Antimony	N	ug/L	No criteria	No criteria	0.13	1	0.13	U	0.13	1	0.13	U
Metals	Barium	N	ug/L	No criteria	No criteria	20.2	5	0.15		19.6	5	0.15	
Metals	Cadmium	N	ug/L	18	5	0.17	0.5	0.17	U	0.17	0.5	0.17	U
Metals	Chromium	N	ug/L	110	100	1.3	2	1.3	U	1.3	2	1.3	U
Metals	Cobalt	N	ug/L	730	No criteria	0.016	1	0.016	U	0.016	1	0.016	U
Metals	Copper	N	ug/L	1500	1000	1.4	2	0.43	J	1.6	2	0.43	J
Metals	Iron	N	ug/L	11000	300	16.3	50	5.5	J	30.1	50	5.5	J
Metals	Lead	N	ug/L	No criteria	15	0.24	2	0.18	J	0.25	2	0.18	J
Metals	Magnesium	N	ug/L	No criteria	No criteria	1410	100	4.8		1400	100	4.8	
Metals	Manganese	N	ug/L	880	50	11.3	2	0.39		11.5	2	0.39	
Metals	Mercury	N	ug/L	11	2	0.034	0.2	0.034	U	0.034	0.2	0.034	U
Metals	Molybdenum	N	ug/L	180	No criteria	1.3	5	0.12	J	1.4	5	0.12	J
Metals	Nickel	N	ug/L	730	No criteria	0.29	1	0.15	J	1.1	1	0.15	J
Metals	Strontium	N	ug/L	22000	No criteria	101	2	0.17	J	98.3	2	0.17	J
Metals	Titanium	N	ug/L	150000	No criteria	0.85	2	0.29	J	0.79	2	0.29	J
Metals	Zinc	N	ug/L	11000	5000	18.2	10	1.8	J	9.2	10	1.8	J
Perchlorate	Perchlorate	Y	ug/L	3.6	No criteria	0.0612	0.2	0.0612	U	0.0612	0.2	0.0612	U

[**Bold**] - Result exceeds EPA Region 9 PRGs - Tap Water
[*Italicized*] - Result exceeds Federal Drinking Water Criteria MCLs

PRG - Preliminary Remediation Goals
REG - regular sample
PQL - practical quantitation limit
MDL - method detection limit
ug/l - microgram per liter
VQ - validation qualifier

HMX - octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
PETN - Pentaerythritol tetranitrate
RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine
Tetryl - methyl-2,4,6-trinitrophenylnitramine

Validation Qualifier Definitions
U - Not detected. The compound/analyte was analyzed for, but not detected above the associated reporting limit
J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample
R - The reported sample results are rejected due to the following: 1. Severe deficiencies in the supporting quality control data, 2. Anomalies noted in the sampling and/or analysis process which could affect the validity of the reported data, 3. The presence or absence of the constituent cannot be verified based on the data provided, 4. To indicate not to use a particular result in the event of a reanalysis
UJ - The compound/analyte was analyzed for, but not detected above the established reporting limit. However, review and evaluation of supporting QC data and/or sampling and analysis process have indicated that the reporting limit may be inaccurate or imprecise. The nondetect result should be estimated

Table G-7j

Comparison of Background Groundwater Results to Site Inspection Screening Values
Camp Adair

Location						017A077				017A078			
Sample Date						14-Sep-06				19-Sep-06			
Sample Number						NWO-017-6001				NWO-017-6002			
Sample Purpose						REG				REG			
Fraction	**Parameter**	**Filtered**	**Units**	**EPA Region 9 PRGs - Tap Water**	**Federal Drinking Water Criteria MCLs**	**Result**	**PQL**	**MDL**	**VQ**	**Result**	**PQL**	**MDL**	**VQ**
Metals	Aluminum	N	ug/L	36000	50	65.1	100	5.5	J	22.9	100	5.5	U
Metals	Antimony	N	ug/L	No criteria	No criteria	0.17	1	0.13	J	0.13	1	0.13	U
Metals	Arsenic	N	ug/L	2600	2000	1	5	1	U	1.3	5	1	J
Metals	Barium	N	ug/L	No criteria	No criteria	20	5	0.15		0.95	5	0.15	U
Metals	Beryllium	N	ug/L	No criteria	No criteria	0.028	0.2	0.028	U	0.028	0.2	0.028	U
Metals	Cadmium	N	ug/L	18	5	0.17	0.5	0.17	U	0.17	0.5	0.17	U
Metals	Calcium	N	ug/L	No criteria	No criteria	17800	1000	45.4		1520	1000	45.4	
Metals	Chromium	N	ug/L	110	100	1.3	2	1.3	U	1.3	2	1.3	U
Metals	Cobalt	N	ug/L	730	No criteria	0.28	1	0.016	J	0.021	1	0.016	J
Metals	Copper	N	ug/L	1500	1000	9.7	2	0.43		1.4	2	0.43	J
Metals	Iron	N	ug/L	11000	300	188	50	5.5		27.6	50	5.5	J
Metals	Lead	N	ug/L	No criteria	15	0.5	2	0.18	J	0.28	2	0.18	J
Metals	Magnesium	N	ug/L	No criteria	No criteria	6850	100	4.8		24.5	100	4.8	J
Metals	Manganese	N	ug/L	880	50	85.2	2	0.39		1.5	2	0.39	J
Metals	Mercury	N	ug/L	11	2	0.034	0.2	0.034	U	0.034	0.2	0.034	U
Metals	Molybdenum	N	ug/L	180	No criteria	1.2	5	0.12	J	1.8	5	0.12	J
Metals	Nickel	N	ug/L	730	No criteria	1.8	1	0.15		1.1	1	0.15	
Metals	Potassium	N	ug/L	No criteria	No criteria	469	1000	13.8	J	150	1000	13.8	J
Metals	Selenium	N	ug/L	No criteria	No criteria	0.75	5	0.75	U	0.75	5	0.75	U
Metals	Silver	N	ug/L	No criteria	No criteria	0.029	0.3	0.029	U	0.029	0.3	0.029	U
Metals	Sodium	N	ug/L	No criteria	No criteria	8990	1000	12.5		97900	1000	12.5	
Metals	Strontium	N	ug/L	22000	No criteria	73.8	2	0.17	J	1.8	2	0.17	J
Metals	Thallium	N	ug/L	No criteria	No criteria	0.074	2	0.074	U	0.074	2	0.074	U
Metals	Titanium	N	ug/L	150000	No criteria	5.4	2	0.29		0.76	2	0.29	J
Metals	Vanadium	N	ug/L	No criteria	No criteria	4.6	10	2.5	J	2.5	10	2.5	U
Metals	Zinc	N	ug/L	11000	5000	45.3	10	1.8		10.3	10	1.8	
Perchlorate	Perchlorate	Y	ug/L	3.6	No criteria	0.0612	0.2	0.0612	UJ	0.0612	0.2	0.0612	U

[**Bold**] - Result exceeds EPA Region 9 PRGs - Tap Water
[*Italicized*] - Result exceeds Federal Drinking Water Criteria MCLs

PRG - Preliminary Remediation Goals
REG - regular sample
PQL - practical quantitation limit
MDL - method detection limit
ug/l - microgram per liter
VQ - validation qualifier

Validation Qualifier Definitions
U - Not detected. The compound/analyte was analyzed for, but not detected above the associated reporting limit
J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample
R - The reported sample results are rejected due to the following: 1. Severe deficiencies in the supporting quality control data, 2. Anomalies noted in the sampling and/or analysis process which could affect the validity of the reported data, 3. The presence or absence of the constituent cannot be verified based on the data provided, 4. To indicate not to use a particular result in the event of a reanalysis
UJ - The compound/analyte was analyzed for, but not detected above the established reporting limit. However, review and evaluation of supporting QC data and/or sampling and analysis process have indicated that the reporting limit may be inaccurate or imprecise. The nondetect result should be estimated

Table G-8a

Comparison of Range Complex No. 4 Sediment Results to Site Inspection Screening Values
Camp Adair

Location					**017A009**			
Sample Number					**31-Aug-06**			
Sample Date					**NWO-017-1001**			
Sample Depth (bgs) (ft)					**1 to 3**			
Sample Purpose					**REG**			
Fraction	**Parameter**	**Units**	**Site Inspection Sediment Ecological Screening Levels**	**EPA Region 9 PRGs - Residential Soil**	**Result**	**PQL**	**MDL**	**VQ**
Metals	Lead	mg/kg	35	400	7	1.8	0.069	

[**Bold**] - Result exceeds Site Inspection Sediment Ecological Screening Levels
[*Italicized*] - Result exceeds EPA Region 9 PRGs - Residential Soil

bgs - below ground surface
ft - feet
PRG - Preliminary Remediation Goals
REG - regular sample
PQL - practical quantitation limit
MDL - method detection limit
mg/kg - milligram per kilogram
VQ - validation qualifier

Validation Qualifier Definitions
U - Not detected. The compound/analyte was analyzed for, but not detected above the associated reporting limit
J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed
R - The reported sample results are rejected due to the following: 1. Severe deficiencies in the supporting quality control data, 2. Anomalies noted in the sampling and/or analysis process which could affect the validity of the reported data, 3. The presence or absence of the constituent cannot be verified based on the data provided, 4. To indicate not to use a particular result in the event of a reanalysis
UJ - The compound/analyte was analyzed for, but not detected above the established reporting limit. However, review and evaluation of supporting QC data and/or sampling and analysis process have indicated that the reporting limit may be inaccurate or imprecise. The nondetect result should be estimated

Table G-8b

Comparison of Range Complex No. 1 Sediment Results to Site Inspection Screening Values
Camp Adair

Location					017A028				017A029			
Sample Number					24-Aug-06				23-Aug-06			
Sample Date					NWO-017-1002				NWO-017-1003			
Sample Depth (bgs) (ft)					0.08 to 0.33				0 to 0.5			
Sample Purpose					REG				REG			
Fraction	Parameter	Units	Site Inspection Sediment Ecological Screening Levels	EPA Region 9 PRGs - Residential Soil	Result	PQL	MDL	VQ	Result	PQL	MDL	VQ
Explosives	1,3,5-Trinitrobenzene	mg/kg	.024	1800	0.012	0.04	0.012	UJ	0.012	0.04	0.012	U
Explosives	1,3-Dinitrobenzene	mg/kg	.067	6.1	0.002	0.04	0.002	U	0.002	0.04	0.002	U
Explosives	2,4,6-Trinitrotoluene	mg/kg	.92	16	0.008	0.04	0.008	U	0.008	0.04	0.008	U
Explosives	2,4-Dinitrotoluene	mg/kg	.29	.72	0.014	0.04	0.014	U	0.014	0.04	0.014	U
Explosives	2,6-Dinitrotoluene	mg/kg	1.9	.72	0.007	0.04	0.007	U	0.007	0.04	0.007	U
Explosives	2-Amino-4,6-dinitrotoluene	mg/kg	7	12	0.01	0.04	0.01	U	0.01	0.04	0.01	U
Explosives	4-Amino-2,6-Dinitrotoluene	mg/kg	1.9	12	0.006	0.04	0.006	U	0.006	0.04	0.006	U
Explosives	HMX	mg/kg	.047	3100	0.012	0.08	0.012	U	0.012	0.08	0.012	U
Explosives	3-Nitrotoluene	mg/kg	4.9	730	0.022	0.08	0.022	U	0.022	0.08	0.022	U
Explosives	Nitrobenzene	mg/kg	32	20	0.006	0.04	0.006	U	0.006	0.04	0.006	U
Explosives	Nitroglycerine	mg/kg	1700	35	0.04	4	0.04	U	0.04	4	0.04	UJ
Explosives	2-Nitrotoluene	mg/kg	5.6	.88	0.009	0.08	0.009	U	0.009	0.08	0.009	U
Explosives	PETN	mg/kg	120000	No criteria	0.041	0.2	0.041	U	0.042	0.2	0.042	U
Explosives	4-Nitrotoluene	mg/kg	10	12	0.036	0.08	0.036	U	0.036	0.08	0.036	U
Explosives	RDX	mg/kg	0.13	4.4	0.071	0.08	0.071	U	0.071	0.08	0.071	U
Explosives	Tetryl	mg/kg	100	610	0.004	0.08	0.004	U	0.004	0.08	0.004	U
Metals	Aluminum	mg/kg	280	76000	**16800**	79.4	2.1		**19200**	81.3	2.2	
Metals	Antimony	mg/kg	3	31	0.13	0.79	0.13	U	0.14	0.81	0.14	U
Metals	Barium	mg/kg	48	No criteria	**163**	4	0.18		**142**	4.1	0.19	
Metals	Cadmium	mg/kg	.003	37	**0.27**	0.4	0.11	J	**0.16**	0.41	0.11	J
Metals	Chromium	mg/kg	37	210	22	1.6	0.22		23.8	1.6	0.23	
Metals	Cobalt	mg/kg	230	900	12.2	0.4	0.013		12.4	0.41	0.014	
Metals	Copper	mg/kg	10	3100	**17.7**	1.6	0.16		**12.1**	1.6	0.16	
Metals	Iron	mg/kg	20	23000	**18700**	39.7	20.5		***27800***	40.7	2.6	
Metals	Lead	mg/kg	35	400	13.8	1.6	0.063		11.9	1.6	0.064	
Metals	Magnesium	mg/kg	No criteria	No criteria	2120	79.4	1.4		1730	81.3	10.5	
Metals	Manganese	mg/kg	1100	1800	375	1.6	0.045		712	1.6	0.046	
Metals	Mercury	mg/kg	0.2	23	0.042	0.024	0.0069		0.058	0.028	0.0083	
Metals	Molybdenum	mg/kg	No criteria	390	0.3	4	0.23	J	0.36	4.1	0.24	J
Metals	Nickel	mg/kg	18	1600	12.7	0.79	0.07		10.6	0.81	0.072	
Metals	Strontium	mg/kg	1700	47000	22.4	1.6	0.073	J	39	1.6	0.075	
Metals	Titanium	mg/kg	98	100000	**489**	1.6	0.24		**206**	1.6	0.24	
Metals	Zinc	mg/kg	3	23000	**41.1**	7.9	0.39		**34.3**	8.1	0.4	

[**Bold**] - Result exceeds Site Inspection Sediment Ecological Screening Levels
[*Italicized*] - Result exceeds EPA Region 9 PRGs - Residential Soil

bgs - below ground surface
ft - feet
PRG - Preliminary Remediation Goals
REG - regular sample
PQL - practical quantitation limit
MDL - method detection limit
VQ - validation qualifier
mg/kg - milligram per kilogram

HMX - octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
PETN - Pentaerythritol tetranitrate
RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine
Tetryl - methyl-2,4,6-trinitrophenylnitramine

Validation Qualifier Definitions
U - Not detected. The compound/analyte was analyzed for, but not detected above the associated reporting limit
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R - The reported sample results are rejected due to the following: 1. Severe deficiencies in the supporting quality control data, 2. Anomalies noted in the sampling and/or analysis process which could affect the validity of the reported data, 3. The presence or absence of the constituent cannot be verified based on the data provided, 4. To indicate not to use a particular result in the event of a reanalysis
UJ - The compound/analyte was analyzed for, but not detected above the established reporting limit. However, review and evaluation of supporting QC data and/or sampling and analysis process have indicated that the reporting limit may be inaccurate or imprecise. The nondetect result should be estimated

Table G-8c

Comparison of Range Complex No. 2 Sediment Results to Site Inspection Screening Values
Camp Adair

Location					017A038				017A039				017A039			
Sample Number					25-Aug-06				24-Aug-06				24-Aug-06			
Sample Date					NWO-017-1004				NWO-017-1005				NWO-017-1006			
Sample Depth (bgs) (ft)					0.08 to 0.5				0.08 to 0.5				0.08 to 0.5			
Sample Purpose					REG				REG				FD			
Fraction	Parameter	Units	Site Inspection Sediment Ecological Screening Levels	EPA Region 9 PRGs - Residential Soil	Result	PQL	MDL	VQ	Result	PQL	MDL	VQ	Result	PQL	MDL	VQ
Explosives	1,3,5-Trinitrobenzene	mg/kg	.024	1800	0.012	0.04	0.012	UJ	0.012	0.04	0.012	UJ	0.012	0.04	0.012	UJ
Explosives	1,3-Dinitrobenzene	mg/kg	.067	6.1	0.002	0.04	0.002	U	0.002	0.04	0.002	U	0.002	0.04	0.002	U
Explosives	2,4,6-Trinitrotoluene	mg/kg	.92	16	0.008	0.04	0.008	U	0.008	0.04	0.008	U	0.008	0.04	0.008	U
Explosives	2,4-Dinitrotoluene	mg/kg	.29	.72	0.014	0.04	0.014	U	0.014	0.04	0.014	U	0.014	0.04	0.014	U
Explosives	2,6-Dinitrotoluene	mg/kg	1.9	.72	0.007	0.04	0.007	U	0.007	0.04	0.007	U	0.007	0.04	0.007	U
Explosives	2-Amino-4,6-dinitrotoluene	mg/kg	7	12	0.01	0.04	0.01	U	0.01	0.04	0.01	U	0.01	0.04	0.01	U
Explosives	4-Amino-2,6-Dinitrotoluene	mg/kg	1.9	12	0.006	0.04	0.006	U	0.006	0.04	0.006	U	0.006	0.04	0.006	U
Explosives	HMX	mg/kg	.047	3100	0.012	0.08	0.012	U	0.012	0.08	0.012	U	0.012	0.08	0.012	U
Explosives	3-Nitrotoluene	mg/kg	4.9	730	0.022	0.08	0.022	U	0.022	0.08	0.022	U	0.022	0.08	0.022	U
Explosives	Nitrobenzene	mg/kg	32	20	0.006	0.04	0.006	U	0.006	0.04	0.006	U	0.006	0.04	0.006	U
Explosives	Nitroglycerine	mg/kg	1700	35	0.04	4	0.04	U	0.04	4	0.04	U	0.04	4	0.04	U
Explosives	2-Nitrotoluene	mg/kg	5.6	.88	0.009	0.08	0.009	U	0.009	0.08	0.009	U	0.009	0.08	0.009	U
Explosives	PETN	mg/kg	120000	No criteria	0.042	0.2	0.042	U	0.042	0.2	0.042	U	0.042	0.2	0.042	U
Explosives	4-Nitrotoluene	mg/kg	10	12	0.036	0.08	0.036	U	0.036	0.08	0.036	U	0.036	0.08	0.036	U
Explosives	RDX	mg/kg	0.13	4.4	0.071	0.08	0.071	U	0.071	0.08	0.071	U	0.071	0.08	0.071	U
Explosives	Tetryl	mg/kg	100	610	0.004	0.08	0.004	U	0.004	0.08	0.004	U	0.004	0.08	0.004	U
Metals	Aluminum	mg/kg	280	76000	**21500**	84	2.3		**14500**	83.3	2.2		**16000**	80	2.2	
Metals	Antimony	mg/kg	3	31	0.14	0.84	0.14	U	0.14	0.83	0.14	U	0.14	0.8	0.14	U
Metals	Barium	mg/kg	48	No criteria	**177**	4.2	0.19		**125**	4.2	0.19		**135**	4	0.18	
Metals	Cadmium	mg/kg	.003	37	**0.43**	0.42	0.12		**0.28**	0.42	0.12	J	**0.36**	0.4	0.11	J
Metals	Chromium	mg/kg	37	210	26.8	1.7	0.24		17.8	1.7	0.23		19.4	1.6	0.22	
Metals	Cobalt	mg/kg	230	900	110.5	0.42	0.014		11.4	0.42	0.014		120.5	0.4	0.014	
Metals	Copper	mg/kg	10	3100	**26.3**	1.7	0.17		**15.2**	1.7	0.17		**16.8**	1.6	0.16	
Metals	Iron	mg/kg	20	23000	***37400***	42	2.7		***33000***	41.7	2.7		***34400***	40	2.6	
Metals	Lead	mg/kg	35	400	11.2	1.7	0.066		9.9	1.7	0.066		10.2	1.6	0.063	
Metals	Magnesium	mg/kg	No criteria	No criteria	5080	84	10.5		3550	83.3	10.5		3850	80	1.4	
Metals	Manganese	mg/kg	1100	1800	284	1.7	0.048		419	1.7	0.048		475	1.6	0.046	
Metals	Mercury	mg/kg	0.2	23	0.035	0.025	0.0072		0.027	0.021	0.006		0.024	0.027	0.0078	J
Metals	Molybdenum	mg/kg	No criteria	390	0.4	4.2	0.24	J	0.33	4.2	0.24	J	0.33	4	0.23	J
Metals	Nickel	mg/kg	18	1600	**20.8**	0.84	0.074		14.4	0.83	0.073		**150.5**	0.8	0.07	
Metals	Strontium	mg/kg	1700	47000	20.1	1.7	0.077	J	16.8	1.7	0.077	J	170.5	1.6	0.074	J
Metals	Titanium	mg/kg	98	100000	**662**	1.7	0.25		**729**	1.7	0.25		**742**	1.6	0.24	
Metals	Zinc	mg/kg	3	23000	**82.4**	8.4	0.41		**67.2**	8.3	0.41		**68.3**	8	0.39	

[**Bold**] - Result exceeds Site Inspection Sediment Ecological Screening Levels
[*Italicized*] - Result exceeds EPA Region 9 PRGs - Residential Soil

bgs - below ground surface
ft - feet
PRG - Preliminary Remediation Goals
REG - regular sample
PQL - practical quantitation limit
MDL - method detection limit
VQ - validation qualifier
mg/kg - milligram per kilogram

HMX - octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
PETN - Pentaerythritol tetranitrate
RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine
Tetryl - methyl-2,4,6-trinitrophenylnitramine

Validation Qualifier Definitions
U - Not detected. The compound/analyte was analyzed for, but not detected above the associated reporting limit
J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed
R - The reported sample results are rejected due to the following: 1. Severe deficiencies in the supporting quality control data, 2. Anomalies noted in the sampling and/or analysis process which could affect the validity of the reported data, 3. The presence or absence of the constituent cannot be verified based on the data provided, 4. To indicate not to use a particular result in the event of a reanalysis
UJ - The compound/analyte was analyzed for, but not detected above the established reporting limit. However, review and evaluation of supporting QC data and/or sampling and analysis process have indicated that the reporting limit may be inaccurate or imprecise. The nondetect result should be estimated

Table G-8d

Comparison of Bombing Target No. 1 Sediment Results to Site Inspection Screening Values
Camp Adair

Location					**017A043**			
Sample Number					**25-Aug-06**			
Sample Date					**NWO-017-1007**			
Sample Depth (bgs) (ft)					**0.08 to 0.5**			
Sample Purpose					**REG**			
Fraction	**Parameter**	**Units**	**Site Inspection Sediment Ecological Screening Levels**	**EPA Region 9 PRGs - Residential Soil**	**Result**	**PQL**	**MDL**	**VQ**
Explosives	1,3,5-Trinitrobenzene	mg/kg	.024	1800	0.012	0.04	0.012	UJ
Explosives	1,3-Dinitrobenzene	mg/kg	.067	6.1	0.002	0.04	0.002	U
Explosives	2,4,6-Trinitrotoluene	mg/kg	.92	16	0.008	0.04	0.008	U
Explosives	2,4-Dinitrotoluene	mg/kg	.29	.72	0.014	0.04	0.014	U
Explosives	2,6-Dinitrotoluene	mg/kg	1.9	.72	0.007	0.04	0.007	U
Explosives	2-Amino-4,6-dinitrotoluene	mg/kg	7	12	0.01	0.04	0.01	U
Explosives	4-Amino-2,6-Dinitrotoluene	mg/kg	1.9	12	0.006	0.04	0.006	U
Explosives	HMX	mg/kg	.047	3100	0.012	0.08	0.012	U
Explosives	3-Nitrotoluene	mg/kg	4.9	730	0.022	0.08	0.022	U
Explosives	Nitrobenzene	mg/kg	32	20	0.006	0.04	0.006	U
Explosives	Nitroglycerine	mg/kg	1700	35	0.04	4	0.04	U
Explosives	2-Nitrotoluene	mg/kg	5.6	.88	0.009	0.08	0.009	U
Explosives	PETN	mg/kg	120000	No criteria	0.041	0.2	0.041	U
Explosives	4-Nitrotoluene	mg/kg	10	12	0.036	0.08	0.036	U
Explosives	RDX	mg/kg	0.13	4.4	0.071	0.08	0.071	U
Explosives	Tetryl	mg/kg	100	610	0.004	0.08	0.004	U
Metals	Aluminum	mg/kg	280	76000	**14400**	81.3	2.2	
Metals	Antimony	mg/kg	3	31	0.15	0.81	0.14	J
Metals	Barium	mg/kg	48	No criteria	**202**	4.1	0.19	
Metals	Cadmium	mg/kg	.003	37	**0.2**	0.41	0.11	J
Metals	Chromium	mg/kg	37	210	23.3	1.6	0.23	
Metals	Cobalt	mg/kg	230	900	21.2	0.41	0.014	
Metals	Copper	mg/kg	10	3100	**19.6**	1.6	0.16	
Metals	Iron	mg/kg	20	23000	***32500***	40.7	2.6	
Metals	Lead	mg/kg	35	400	15.7	1.6	0.064	
Metals	Magnesium	mg/kg	No criteria	No criteria	2390	81.3	10.5	
Metals	Manganese	mg/kg	1100	1800	794	1.6	0.046	
Metals	Mercury	mg/kg	0.2	23	0.038	0.025	0.0073	
Metals	Molybdenum	mg/kg	No criteria	390	0.56	4.1	0.24	J
Metals	Nickel	mg/kg	18	1600	13.3	0.81	0.072	
Metals	Strontium	mg/kg	1700	47000	30.1	1.6	0.075	J
Metals	Titanium	mg/kg	98	100000	**434**	1.6	0.24	
Metals	Zinc	mg/kg	3	23000	**64.4**	8.1	0.4	

[**Bold**] - Result exceeds Site Inspection Sediment Ecological Screening Levels
[*Italicized*] - Result exceeds EPA Region 9 PRGs - Residential Soil

bgs - below ground surface
ft - feet
PRG - Preliminary Remediation Goals
REG - regular sample
PQL - practical quantitation limit
MDL - method detection limit
VQ - validation qualifier
mg/kg - milligram per kilogram

HMX - octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
PETN - Pentaerythritol tetranitrate
RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine
Tetryl - methyl-2,4,6-trinitrophenylnitramine

Validation Qualifier Definitions
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UJ - The compound/analyte was analyzed for, but not detected above the established reporting limit. However, review and evaluation of supporting QC data and/or sampling and analysis process have indicated that the reporting limit may be inaccurate or imprecise. The nondetect result should be estimated

Table G-8e

Comparison of Range Complex No. 3 Sediment Results to Site Inspection Screening Values
Camp Adair

Location					**017A049**			
Sample Number					**28-Aug-06**			
Sample Date					**NWO-017-1008**			
Sample Depth (bgs) (ft)					**0.08 to 0.5**			
Sample Purpose					**REG**			
Fraction	**Parameter**	**Units**	**Site Inspection Sediment Ecological Screening Levels**	**EPA Region 9 PRGs - Residential Soil**	**Result**	**PQL**	**MDL**	**VQ**
Explosives	1,3,5-Trinitrobenzene	mg/kg	.024	1800	0.012	0.04	0.012	U
Explosives	1,3-Dinitrobenzene	mg/kg	.067	6.1	0.002	0.04	0.002	U
Explosives	2,4,6-Trinitrotoluene	mg/kg	.92	16	0.008	0.04	0.008	U
Explosives	2,4-Dinitrotoluene	mg/kg	.29	.72	0.014	0.04	0.014	U
Explosives	2,6-Dinitrotoluene	mg/kg	1.9	.72	0.007	0.04	0.007	U
Explosives	2-Amino-4,6-dinitrotoluene	mg/kg	7	12	0.01	0.04	0.01	U
Explosives	4-Amino-2,6-Dinitrotoluene	mg/kg	1.9	12	0.006	0.04	0.006	U
Explosives	HMX	mg/kg	.047	3100	0.012	0.08	0.012	U
Explosives	3-Nitrotoluene	mg/kg	4.9	730	0.022	0.08	0.022	U
Explosives	Nitrobenzene	mg/kg	32	20	0.006	0.04	0.006	U
Explosives	Nitroglycerine	mg/kg	1700	35	0.04	4	0.04	U
Explosives	2-Nitrotoluene	mg/kg	5.6	.88	0.009	0.08	0.009	U
Explosives	PETN	mg/kg	120000	No criteria	0.042	0.2	0.042	U
Explosives	4-Nitrotoluene	mg/kg	10	12	0.036	0.08	0.036	U
Explosives	RDX	mg/kg	0.13	4.4	0.071	0.08	0.071	U
Explosives	Tetryl	mg/kg	100	610	0.004	0.08	0.004	U
Metals	Aluminum	mg/kg	280	76000	**25100**	81.3	2.2	
Metals	Antimony	mg/kg	3	31	0.27	0.81	0.14	J
Metals	Barium	mg/kg	48	No criteria	**151**	4.1	0.19	
Metals	Cadmium	mg/kg	.003	37	**0.23**	0.41	0.11	J
Metals	Chromium	mg/kg	37	210	35	1.6	0.23	J
Metals	Cobalt	mg/kg	230	900	18.4	0.81	0.014	
Metals	Copper	mg/kg	10	3100	**30.2**	1.6	0.16	
Metals	Iron	mg/kg	20	23000	***42800***	40.7	2.6	
Metals	Lead	mg/kg	35	400	**170.5**	1.6	0.064	
Metals	Magnesium	mg/kg	No criteria	No criteria	3830	81.3	10.5	
Metals	Manganese	mg/kg	1100	1800	712	1.6	0.046	
Metals	Mercury	mg/kg	0.2	23	0.029	0.025	0.0072	U
Metals	Molybdenum	mg/kg	No criteria	390	0.62	4.1	0.24	J
Metals	Nickel	mg/kg	18	1600	**20.4**	0.81	0.072	
Metals	Strontium	mg/kg	1700	47000	25.8	1.6	0.075	J
Metals	Titanium	mg/kg	98	100000	**318**	1.6	0.24	J
Metals	Zinc	mg/kg	3	23000	**620.5**	8.1	0.4	J

[**Bold**] - Result exceeds Site Inspection Sediment Ecological Screening Levels
[*Italicized*] - Result exceeds EPA Region 9 PRGs - Residential Soil

bgs - below ground surface
ft - feet
PRG - Preliminary Remediation Goals
REG - regular sample
PQL - practical quantitation limit
MDL - method detection limit
VQ - validation qualifier
mg/kg - milligram per kilogram

HMX - octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
PETN - Pentaerythritol tetranitrate
RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine
Tetryl - methyl-2,4,6-trinitrophenylnitramine

Validation Qualifier Definitions
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Table G-8f

Comparison of Mortar Range Sediment Results to Site Inspection Screening Values
Camp Adair

Location					**017A053**			
Sample Number					**7-Sep-06**			
Sample Date					**NWO-017-1009R**			
Sample Depth (bgs) (ft)					**0.08 to 00.52**			
Sample Purpose					**REG**			
Fraction	**Parameter**	**Units**	**Site Inspection Sediment Ecological Screening Levels**	**EPA Region 9 PRGs - Residential Soil**	**Result**	**PQL**	**MDL**	**VQ**
Explosives	1,3,5-Trinitrobenzene	mg/kg	.024	1800	0.012	0.04	0.012	UJ
Explosives	1,3-Dinitrobenzene	mg/kg	.067	6.1	0.002	0.04	0.002	U
Explosives	2,4,6-Trinitrotoluene	mg/kg	.92	16	0.008	0.04	0.008	U
Explosives	2,4-Dinitrotoluene	mg/kg	.29	.72	0.014	0.04	0.014	U
Explosives	2,6-Dinitrotoluene	mg/kg	1.9	.72	0.007	0.04	0.007	U
Explosives	2-Amino-4,6-dinitrotoluene	mg/kg	7	12	0.01	0.04	0.01	U
Explosives	4-Amino-2,6-Dinitrotoluene	mg/kg	1.9	12	0.006	0.04	0.006	U
Explosives	HMX	mg/kg	.047	3100	0.012	0.08	0.012	U
Explosives	m-Nitrotoluene	mg/kg	4.9	730	0.022	0.08	0.022	U
Explosives	Nitrobenzene	mg/kg	32	20	0.025	0.04	0.006	J
Explosives	Nitroglycerine	mg/kg	1700	35	0.04	4	0.04	U
Explosives	o-Nitrotoluene	mg/kg	5.6	.88	0.009	0.08	0.009	U
Explosives	PETN	mg/kg	120000	No criteria	0.041	0.2	0.041	U
Explosives	p-Nitrotoluene	mg/kg	10	12	0.036	0.08	0.036	U
Explosives	RDX	mg/kg	0.13	4.4	0.071	0.08	0.071	U
Explosives	Tetryl	mg/kg	100	610	0.004	0.08	0.004	U
Metals	Aluminum	mg/kg	280	76000	**39300**	82	2.2	
Metals	Antimony	mg/kg	3	31	0.14	0.82	0.14	U
Metals	Barium	mg/kg	48	No criteria	**181**	4.1	0.19	
Metals	Cadmium	mg/kg	.003	37	**0.64**	0.41	0.11	
Metals	Chromium	mg/kg	37	210	**117**	1.6	0.23	
Metals	Cobalt	mg/kg	230	900	**760.5**	0.41	0.014	
Metals	Copper	mg/kg	10	3100	**86.8**	3.3	0.33	
Metals	Iron	mg/kg	20	23000	***75600***	41	2.6	
Metals	Lead	mg/kg	35	400	1.6	1.6	0.065	
Metals	Magnesium	mg/kg	No criteria	No criteria	12900	82	10.5	
Metals	Manganese	mg/kg	1100	1800	***1800***	1.6	0.047	
Metals	Mercury	mg/kg	0.2	23	0.0072	0.025	0.0072	U
Metals	Molybdenum	mg/kg	No criteria	390	0.24	4.1	0.24	U
Metals	Nickel	mg/kg	18	1600	**790.5**	0.82	0.072	
Metals	Strontium	mg/kg	1700	47000	88	1.6	0.075	J
Metals	Titanium	mg/kg	98	100000	**4480**	3.3	0.49	
Metals	Zinc	mg/kg	3	23000	**660.5**	8.2	0.4	

[**Bold**] - Result exceeds Site Inspection Sediment Ecological Screening Levels
[*Italicized*] - Result exceeds EPA Region 9 PRGs - Residential Soil

bgs - below ground surface
ft - feet
PRG - Preliminary Remediation Goals
REG - regular sample
PQL - practical quantitation limit
MDL - method detection limit
mg/kg - milligram per kilogram
VQ - validation qualifier

HMX - octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
PETN - Pentaerythritol tetranitrate
RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine
Tetryl - methyl-2,4,6-trinitrophenylnitramine

Validation Qualifier Definitions
U - Not detected. The compound/analyte was analyzed for, but not detected above the associated reporting limit
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Table G-8g

Comparison of Moving Target Range No. 75 Sediment Results to Site Inspection Screening Values
Camp Adair

Location					**017A057**			
Sample Number					**7-Sep-06**			
Sample Date					**NWO-017-1010R**			
Sample Depth (bgs) (ft)					**0.08 to 0.33**			
Sample Purpose					**REG**			
Fraction	**Parameter**	**Units**	**Site Inspection Sediment Ecological Screening Levels**	**EPA Region 9 PRGs - Residential Soil**	**Result**	**PQL**	**MDL**	**VQ**
Explosives	1,3,5-Trinitrobenzene	mg/kg	.024	1800	0.012	0.04	0.012	UJ
Explosives	1,3-Dinitrobenzene	mg/kg	.067	6.1	0.002	0.04	0.002	U
Explosives	2,4,6-Trinitrotoluene	mg/kg	.92	16	0.008	0.04	0.008	U
Explosives	2,4-Dinitrotoluene	mg/kg	.29	.72	0.014	0.04	0.014	U
Explosives	2,6-Dinitrotoluene	mg/kg	1.9	.72	0.007	0.04	0.007	U
Explosives	2-Amino-4,6-dinitrotoluene	mg/kg	7	12	0.01	0.04	0.01	U
Explosives	4-Amino-2,6-Dinitrotoluene	mg/kg	1.9	12	0.006	0.04	0.006	U
Explosives	HMX	mg/kg	.047	3100	0.012	0.08	0.012	U
Explosives	3-Nitrotoluene	mg/kg	4.9	730	0.022	0.08	0.022	U
Explosives	Nitrobenzene	mg/kg	32	20	0.006	0.04	0.006	U
Explosives	Nitroglycerine	mg/kg	1700	35	0.04	4	0.04	U
Explosives	2-Nitrotoluene	mg/kg	5.6	.88	0.009	0.08	0.009	U
Explosives	PETN	mg/kg	120000	No criteria	0.042	0.2	0.042	U
Explosives	4-Nitrotoluene	mg/kg	10	12	0.036	0.08	0.036	U
Explosives	RDX	mg/kg	0.13	4.4	0.071	0.08	0.071	U
Explosives	Tetryl	mg/kg	100	610	0.004	0.08	0.004	U
Metals	Aluminum	mg/kg	280	76000	**34900**	165	40.5	
Metals	Antimony	mg/kg	3	31	0.28	1.7	0.28	U
Metals	Barium	mg/kg	48	No criteria	**444**	8.3	0.38	
Metals	Cadmium	mg/kg	.003	37	**0.42**	0.83	0.23	J
Metals	Chromium	mg/kg	37	210	**55.9**	3.3	0.46	
Metals	Cobalt	mg/kg	230	900	38.1	0.83	0.028	
Metals	Copper	mg/kg	10	3100	**670.5**	3.3	0.33	
Metals	Iron	mg/kg	20	23000	***63500***	82.6	5.3	
Metals	Lead	mg/kg	35	400	12	3.3	0.13	
Metals	Magnesium	mg/kg	No criteria	No criteria	5370	165	3	
Metals	Manganese	mg/kg	1100	1800	***2320***	3.3	0.094	
Metals	Mercury	mg/kg	0.2	23	0.041	0.031	0.0091	
Metals	Molybdenum	mg/kg	No criteria	390	1.2	8.3	0.48	J
Metals	Nickel	mg/kg	18	1600	**38.2**	1.7	0.15	
Metals	Strontium	mg/kg	1700	47000	107	3.3	0.15	J
Metals	Titanium	mg/kg	98	100000	**1400**	3.3	0.5	
Metals	Zinc	mg/kg	3	23000	**78.8**	160.5	0.81	

[**Bold**] - Result exceeds Site Inspection Sediment Ecological Screening Levels

[*Italicized*] - Result exceeds EPA Region 9 PRGs - Residential Soil

bgs - below ground surface
ft - feet
PRG - Preliminary Remediation Goals
REG - regular sample
PQL - practical quantitation limit
MDL - method detection limit
VQ - validation qualifier
mg/kg - milligram per kilogram

HMX - octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
PETN - Pentaerythritol tetranitrate
RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine
Tetryl - methyl-2,4,6-trinitrophenylnitramine

Validation Qualifier Definitions

U - Not detected. The compound/analyte was analyzed for, but not detected above the associated reporting limit

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Table G-8h

Comparison of East Live Grenade Court Sediment Results to Site Inspection Screening Values
Camp Adair

Location					**017A060**			
Sample Number					**22-Aug-06**			
Sample Date					**NWO-017-1011**			
Sample Depth (bgs) (ft)					**0 to 0.5**			
Sample Purpose					**REG**			
Fraction	**Parameter**	**Units**	**Site Inspection Sediment Ecological Screening Levels**	**EPA Region 9 PRGs - Residential Soil**	**Result**	**PQL**	**MDL**	**VQ**
Explosives	1,3,5-Trinitrobenzene	mg/kg	.024	1800	0.012	0.04	0.012	U
Explosives	1,3-Dinitrobenzene	mg/kg	.067	6.1	0.002	0.04	0.002	U
Explosives	2,4,6-Trinitrotoluene	mg/kg	.92	16	0.008	0.04	0.008	U
Explosives	2,4-Dinitrotoluene	mg/kg	.29	.72	0.014	0.04	0.014	U
Explosives	2,6-Dinitrotoluene	mg/kg	1.9	.72	0.007	0.04	0.007	U
Explosives	2-Amino-4,6-dinitrotoluene	mg/kg	7	12	0.01	0.04	0.01	U
Explosives	4-Amino-2,6-Dinitrotoluene	mg/kg	1.9	12	0.006	0.04	0.006	U
Explosives	HMX	mg/kg	.047	3100	0.012	0.08	0.012	U
Explosives	3-Nitrotoluene	mg/kg	4.9	730	0.022	0.08	0.022	U
Explosives	Nitrobenzene	mg/kg	32	20	0.006	0.04	0.006	U
Explosives	Nitroglycerine	mg/kg	1700	35	0.04	4	0.04	UJ
Explosives	2-Nitrotoluene	mg/kg	5.6	.88	0.009	0.08	0.009	U
Explosives	PETN	mg/kg	120000	No criteria	0.042	0.2	0.042	U
Explosives	4-Nitrotoluene	mg/kg	10	12	0.036	0.08	0.036	U
Explosives	RDX	mg/kg	0.13	4.4	0.071	0.08	0.071	U
Explosives	Tetryl	mg/kg	100	610	0.004	0.08	0.004	U
Metals	Aluminum	mg/kg	280	76000	**19000**	87.7	2.4	
Metals	Antimony	mg/kg	3	31	0.15	0.88	0.15	U
Metals	Barium	mg/kg	48	No criteria	**188**	4.4	0.2	
Metals	Cadmium	mg/kg	.003	37	**0.29**	0.44	0.12	J
Metals	Chromium	mg/kg	37	210	26.6	1.8	0.25	
Metals	Cobalt	mg/kg	230	900	18.3	0.44	0.015	
Metals	Copper	mg/kg	10	3100	**18.8**	1.8	0.18	
Metals	Iron	mg/kg	20	23000	***27900***	43.9	2.8	
Metals	Lead	mg/kg	35	400	11.6	1.8	0.069	
Metals	Magnesium	mg/kg	No criteria	No criteria	3040	87.7	1.6	
Metals	Manganese	mg/kg	1100	1800	**1460**	1.8	0.05	
Metals	Mercury	mg/kg	0.2	23	0.041	0.03	0.0086	
Metals	Molybdenum	mg/kg	No criteria	390	0.3	4.4	0.25	J
Metals	Nickel	mg/kg	18	1600	15.2	0.88	0.077	
Metals	Strontium	mg/kg	1700	47000	38.9	1.8	0.081	
Metals	Titanium	mg/kg	98	100000	**577**	1.8	0.26	
Metals	Zinc	mg/kg	3	23000	**72.6**	8.8	0.43	

[**Bold**] - Result exceeds Site Inspection Sediment Ecological Screening Levels
[*Italicized*] - Result exceeds EPA Region 9 PRGs - Residential Soil

bgs - below ground surface
ft - feet
PRG - Preliminary Remediation Goals
REG - regular sample
PQL - practical quantitation limit
MDL - method detection limit
VQ - validation qualifier
mg/kg - milligram per kilogram

HMX - octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
PETN - Pentaerythritol tetranitrate
RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine
Tetryl - methyl-2,4,6-trinitrophenylnitramine

Validation Qualifier Definitions
U - Not detected. The compound/analyte was analyzed for, but not detected above the associated reporting limit
J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed
R - The reported sample results are rejected due to the following: 1. Severe deficiencies in the supporting quality control data, 2. Anomalies noted in the sampling and/or analysis process which could affect the validity of the reported data, 3. The presence or absence of the constituent cannot be verified based on the data provided, 4. To indicate not to use a particular result in the event of a reanalysis
UJ - The compound/analyte was analyzed for, but not detected above the established reporting limit. However, review and evaluation of supporting QC data and/or sampling and analysis process have indicated that the reporting limit may be inaccurate or imprecise. The nondetect result should be estimated

Table G-8i

Comparison of Live Hand Grenade Court No. 129 Sediment Results to Site Inspection Screening Values
Camp Adair

Location					017A063				017A063			
Sample Number					23-Aug-06				23-Aug-06			
Sample Date					NWO-017-1012				NWO-017-1013			
Sample Depth (bgs) (ft)					0.08 to 0.5				0.08 to 0.5			
Sample Purpose					REG				FD			
Fraction	Parameter	Units	Site Inspection Sediment Ecological Screening Levels	EPA Region 9 PRGs - Residential Soil	Result	PQL	MDL	VQ	Result	PQL	MDL	VQ
Explosives	1,3,5-Trinitrobenzene	mg/kg	.024	1800	0.012	0.04	0.012	U	0.012	0.04	0.012	U
Explosives	1,3-Dinitrobenzene	mg/kg	.067	6.1	0.002	0.04	0.002	U	0.002	0.04	0.002	U
Explosives	2,4,6-Trinitrotoluene	mg/kg	.92	16	0.008	0.04	0.008	U	0.008	0.04	0.008	U
Explosives	2,4-Dinitrotoluene	mg/kg	.29	.72	0.014	0.04	0.014	U	0.014	0.04	0.014	U
Explosives	2,6-Dinitrotoluene	mg/kg	1.9	.72	0.007	0.04	0.007	U	0.007	0.04	0.007	U
Explosives	2-Amino-4,6-dinitrotoluene	mg/kg	7	12	0.01	0.04	0.01	U	0.01	0.04	0.01	U
Explosives	4-Amino-2,6-Dinitrotoluene	mg/kg	1.9	12	0.006	0.04	0.006	U	0.006	0.04	0.006	U
Explosives	HMX	mg/kg	.047	3100	0.012	0.08	0.012	U	0.012	0.08	0.012	U
Explosives	3-Nitrotoluene	mg/kg	4.9	730	0.022	0.08	0.022	U	0.022	0.08	0.022	U
Explosives	Nitrobenzene	mg/kg	32	20	0.006	0.04	0.006	U	0.006	0.04	0.006	U
Explosives	Nitroglycerine	mg/kg	1700	35	0.04	4	0.04	UJ	0.04	4	0.04	UJ
Explosives	2-Nitrotoluene	mg/kg	5.6	.88	0.009	0.08	0.009	U	0.009	0.08	0.009	U
Explosives	PETN	mg/kg	120000	No criteria	0.042	0.2	0.042	U	0.042	0.2	0.042	U
Explosives	4-Nitrotoluene	mg/kg	10	12	0.036	0.08	0.036	U	0.036	0.08	0.036	U
Explosives	RDX	mg/kg	0.13	4.4	0.071	0.08	0.071	U	0.071	0.08	0.071	U
Explosives	Tetryl	mg/kg	100	610	0.004	0.08	0.004	U	0.004	0.08	0.004	U
Metals	Aluminum	mg/kg	280	76000	**12300**	83.3	2.2		**16100**	80.6	2.2	
Metals	Antimony	mg/kg	3	31	0.14	0.83	0.14	U	0.14	0.81	0.14	U
Metals	Barium	mg/kg	48	No criteria	**76**	4.2	0.19		104	4	0.19	
Metals	Cadmium	mg/kg	.003	37	**0.18**	0.42	0.12	J	**0.18**	0.4	0.11	J
Metals	Chromium	mg/kg	37	210	19.9	1.7	0.23		24.2	1.6	0.23	
Metals	Cobalt	mg/kg	230	900	17.2	0.42	0.014		17.7	0.4	0.014	
Metals	Copper	mg/kg	10	3100	**14.1**	1.7	0.17		**18.4**	1.6	0.16	
Metals	Iron	mg/kg	20	23000	**21200**	41.7	2.7		***25000***	40.3	2.6	
Metals	Lead	mg/kg	35	400	5	1.7	0.066		5.9	1.6	0.064	
Metals	Magnesium	mg/kg	No criteria	No criteria	1920	83.3	10.5		2580	80.6	10.5	
Metals	Manganese	mg/kg	1100	1800	939	1.7	0.048		1090	1.6	0.046	
Metals	Mercury	mg/kg	0.2	23	0.034	0.028	0.0081		0.048	0.029	0.0084	
Metals	Molybdenum	mg/kg	No criteria	390	0.24	4.2	0.24	U	**0.24**	4	0.23	J
Metals	Nickel	mg/kg	18	1600	6.2	0.83	0.073		8.3	0.81	0.071	
Metals	Strontium	mg/kg	1700	47000	19.7	1.7	0.077		30.1	1.6	0.074	
Metals	Titanium	mg/kg	98	100000	**379**	1.7	0.25		510	1.6	0.24	
Metals	Zinc	mg/kg	3	23000	**27.8**	8.3	0.41		**380.5**	8.1	0.4	

[**Bold**] - Result exceeds Site Inspection Sediment Ecological Screening Levels
[*Italicized*] - Result exceeds EPA Region 9 PRGs - Residential Soil

bgs - below ground surface
ft - feet
PRG - Preliminary Remediation Goals
REG - regular sample
PQL - practical quantitation limit
MDL - method detection limit
VQ - validation qualifier
mg/kg - milligram per kilogram

HMX - octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
PETN - Pentaerythritol tetranitrate
RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine
Tetryl - methyl-2,4,6-trinitrophenylnitramine

Validation Qualifier Definitions
U - Not detected. The compound/analyte was analyzed for, but not detected above the associated reporting limit
J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed
R - The reported sample results are rejected due to the following: 1. Severe deficiencies in the supporting quality control data, 2. Anomalies noted in the sampling and/or analysis process which could affect the validity of the reported data, 3. The presence or absence of the constituent cannot be verified based on the data provided, 4. To indicate not to use a particular result in the event of a reanalysis
UJ - The compound/analyte was analyzed for, but not detected above the established reporting limit. However, review and evaluation of supporting QC data and/or sampling and analysis process have indicated that the reporting limit may be inaccurate or imprecise. The nondetect result should be estimated

Table G-8j

Comparison of Background Sediment Results to Site Inspection Screening Values
Camp Adair

Location					017A074				017A075				017A076			
Sample Number					24-Aug-06				28-Aug-06				29-Aug-06			
Sample Date					NWO-017-5012				NWO-017-5013				NWO-017-5014			
Sample Depth (bgs) (ft)					0.08 to 0.33				0.08 to 0.5				0.08 to 0.25			
Sample Purpose					REG				REG				REG			
Fraction	Parameter	Units	Site Inspection Sediment Ecological Screening Levels	EPA Region 9 PRGs - Residential Soil	Result	PQL	MDL	VQ	Result	PQL	MDL	VQ	Result	PQL	MDL	VQ
Metals	Aluminum	mg/kg	280	76000	**36900**	82.6	2.2		**20400**	79.4	2.1		**21200**	78.7	2.1	
Metals	Antimony	mg/kg	3	31	0.14	0.83	0.14	U	0.13	0.79	0.13	U	0.13	0.79	0.13	U
Metals	Arsenic	mg/kg	No criteria	5400	1.6	4.1	0.5	J	6	4	0.48		5.6	3.9	0.48	
Metals	Barium	mg/kg	48	No criteria	**142**	4.1	0.19		**140**	4	0.18		**173**	3.9	0.18	
Metals	Beryllium	mg/kg	No criteria	No criteria	0.74	0.17	0.026		0.8	0.16	0.025		0.84	0.16	0.025	
Metals	Cadmium	mg/kg	.003	37	**0.85**	0.41	0.12		**0.34**	0.4	0.11	J	**0.22**	0.39	0.11	J
Metals	Calcium	mg/kg	No criteria	No criteria	8060	826	4.6		3960	794	4.4		3160	787	4.4	
Metals	Chromium	mg/kg	37	210	**100**	1.7	0.23		**170.5**	1.6	0.22		21	1.6	0.22	
Metals	Cobalt	mg/kg	230	900	45.8	0.41	0.014		13.1	0.79	0.013		9.8	0.79	0.013	
Metals	Copper	mg/kg	10	3100	**134**	3.3	0.33		**23.8**	1.6	0.16		**17.4**	1.6	0.16	
Metals	Iron	mg/kg	20	23000	***76000***	41.3	2.6		***53900***	39.7	20.5		***35600***	39.4	20.5	
Metals	Lead	mg/kg	35	400	2.7	1.7	0.065		8.8	1.6	0.063		11.1	1.6	0.062	
Metals	Magnesium	mg/kg	No criteria	No criteria	12000	82.6	10.5		4580	79.4	1.4		4410	78.7	1.4	
Metals	Manganese	mg/kg	1100	1800	**1290**	1.7	0.047		589	1.6	0.045		451	1.6	0.045	
Metals	Mercury	mg/kg	0.2	23	0.049	0.026	0.0074		0.019	0.027	0.0079	U	0.051	0.03	0.0086	U
Metals	Molybdenum	mg/kg	No criteria	390	0.4	4.1	0.24	J	0.55	4	0.23	J	0.56	3.9	0.23	J
Metals	Nickel	mg/kg	18	1600	**44.2**	0.83	0.073		15.6	0.79	0.07		**160.5**	0.79	0.069	
Metals	Potassium	mg/kg	No criteria	No criteria	568	826	1.7	J	1540	794	1.6		1660	787	1.6	
Metals	Selenium	mg/kg	No criteria	No criteria	1	4.1	0.8	J	0.77	4	0.77	U	0.76	3.9	0.76	U
Metals	Silver	mg/kg	No criteria	No criteria	0.13	0.25	0.016	J	0.054	0.24	0.015	J	0.056	0.24	0.015	J
Metals	Sodium	mg/kg	No criteria	No criteria	483	826	7.8	J	128	794	70.5	J	96	787	7.4	J
Metals	Strontium	mg/kg	1700	47000	52.4	1.7	0.076	J	21.3	1.6	0.073	J	25.9	1.6	0.072	J
Metals	Thallium	mg/kg	No criteria	No criteria	0.14	1.7	0.14	U	0.13	1.6	0.13	U	0.22	1.6	0.13	J
Metals	Titanium	mg/kg	98	100000	**4610**	3.3	0.5		**908**	1.6	0.24		**564**	1.6	0.24	
Metals	Vanadium	mg/kg	No criteria	No criteria	244	8.3	2.1		720.5	7.9	2		40.4	7.9	2	
Metals	Zinc	mg/kg	3	23000	**81.2**	8.3	0.4		**92.4**	7.9	0.39		**720.5**	7.9	0.39	

[**Bold**] - Result exceeds Site Inspection Sediment Ecological Screening Levels
[*Italicized*] - Result exceeds EPA Region 9 PRGs - Residential Soil

bgs - below ground surface
ft - feet
PRG - Preliminary Remediation Goals
REG - regular sample
PQL - practical quantitation limit
MDL - method detection limit
VQ - validation qualifier
mg/kg - milligram per kilogram

Validation Qualifier Definitions
U - Not detected. The compound/analyte was analyzed for, but not detected above the associated reporting limit
J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed
R - The reported sample results are rejected due to the following: 1. Severe deficiencies in the supporting quality control data, 2. Anomalies noted in the sampling and/or analysis process which could affect the validity of the reported data, 3. The presence or absence of the constituent cannot be verified based on the data provided, 4. To indicate not to use a particular result in the event of a reanalysis
UJ - The compound/analyte was analyzed for, but not detected above the established reporting limit. However, review and evaluation of supporting QC data and/or sampling and analysis process have indicated that the reporting limit may be inaccurate or imprecise. The nondetect result should be estimated

Table G-9a

Comparison of Range Complex No. 4 Soil Results to Site Inspection Screening Values
Camp Adair

Location							017A001				017A002				017A003				017A004			
Sample Number							24-Aug-06				31-Aug-06				31-Aug-06				31-Aug-06			
Sample Date							NWO-017-0001				NWO-017-0002				NWO-017-0003				NWO-017-0004			
Sample Depth (bgs) (ft)							0.08 to 0.5				0.08 to 0.5				0.08 to 0.5				0.08 to 0.5			
Sample Purpose							REG				REG				REG				REG			
Fraction	**Parameter**	**Units**	**Site Inspection Soil Ecological Screening Levels**	**EPA Region 9 PRGs - Residential Soil**	**EPA Region 9 SSLs DAF=1**	**EPA Region 9 SSLs DAF=20**	**Result**	**PQL**	**MDL**	**VQ**	**Result**	**PQL**	**MDL**	**VQ**	**Result**	**PQL**	**MDL**	**VQ**	**Result**	**PQL**	**MDL**	**VQ**
Metals	Lead	mg/kg	16	400	No criteria	No criteria	**45.5**	1.6	0.062		13.4	3.2	0.13		**73.2**	1.7	0.067		4.5	1.8	0.07	

[**Bold**] - Result exceeds Site Inspection Soil Ecological Screening Levels
[*Italicized*] - Result exceeds EPA Region 9 PRGs - Residential Soil
[Underline] - Result exceeds EPA Region 9 SSLs DAF=1
[Shaded] - Result exceeds EPA Region 9 SSLs DAF=20

bgs - below ground surface
ft - feet
PRG - Preliminary Remediation Goals
SSL - soil screening level
DAF - dilution attentuation factor
REG - regular sample
PQL - practical quantitation limit
MDL - method detection limit
mg/kg - milligram per kilogram
VQ - validation qualifier

Validation Qualifier Definitions
U - Not detected. The compound/analyte was analyzed for, but not detected above the associated reporting limit
J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed
R - The reported sample results are rejected due to the following: 1. Severe deficiencies in the supporting quality control data, 2. Anomalies noted in the sampling and/or analysis process which could affect the validity of the reported data, 3. The presence or absence of the constituent cannot be verified based on the data provided, 4. To indicate not to use a particular result in the event of a reanalysis
UJ - The compound/analyte was analyzed for, but not detected above the established reporting limit. However, review and evaluation of supporting QC data and/or sampling and analysis process have indicated that the reporting limit may be inaccurate or imprecise. The nondetect result should be estimated

Table G-9a

Comparison of Range Complex No. 4 Soil Results to Site Inspection Screening Values
Camp Adair

Location							017A005				017A006				017A006				017A007			
Sample Number							31-Aug-06				31-Aug-06				31-Aug-06				24-Aug-06			
Sample Date							NWO-017-0005				NWO-017-0006				NWO-017-0007				NWO-017-0008			
Sample Depth (bgs) (ft)							0.08 to 0.5				0.08 to 0.5				0.08 to 0.5				0 to 0.5			
Sample Purpose							REG				REG				FD				REG			
Fraction	**Parameter**	**Units**	**Site Inspection Soil Ecological Screening Levels**	**EPA Region 9 PRGs - Residential Soil**	**EPA Region 9 SSLs DAF=1**	**EPA Region 9 SSLs DAF=20**	**Result**	**PQL**	**MDL**	**VQ**	**Result**	**PQL**	**MDL**	**VQ**	**Result**	**PQL**	**MDL**	**VQ**	**Result**	**PQL**	**MDL**	**VQ**
Metals	Lead	mg/kg	16	400	No criteria	No criteria	**16.2**	1.7	0.068		10.4	1.7	0.065		10.3	1.7	0.066		6.4	3.1	0.12	

[**Bold**] - Result exceeds Site Inspection Soil Ecological Screening Levels
[*Italicized*] - Result exceeds EPA Region 9 PRGs - Residential Soil
[Underline] - Result exceeds EPA Region 9 SSLs DAF=1
[Shaded] - Result exceeds EPA Region 9 SSLs DAF=20

bgs - below ground surface
ft - feet
PRG - Preliminary Remediation Goals
SSL - soil screening level
DAF - dilution attentuation factor
REG - regular sample
PQL - practical quantitation limit
MDL - method detection limit
mg/kg - milligram per kilogram
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Validation Qualifier Definitions
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J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed
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UJ - The compound/analyte was analyzed for, but not detected above the established reporting limit. However, review and evaluation of supporting QC data and/or sampling and analysis process have indicated that the reporting limit may be inaccurate or imprecise. The nondetect result should be estimated

Table G-9a

Comparison of Range Complex No. 4 Soil Results to Site Inspection Screening Values
Camp Adair

Location							**017A008**			
Sample Number							**6-Sep-06**			
Sample Date							**NWO-017-0009**			
Sample Depth (bgs) (ft)							**0.08 to 0.5**			
Sample Purpose							**REG**			
Fraction	**Parameter**	**Units**	**Site Inspection Soil Ecological Screening Levels**	**EPA Region 9 PRGs - Residential Soil**	**EPA Region 9 SSLs DAF=1**	**EPA Region 9 SSLs DAF=20**	**Result**	**PQL**	**MDL**	**VQ**
Metals	Lead	mg/kg	16	400	No criteria	No criteria	**17**	1.8	0.071	

[**Bold**] - Result exceeds Site Inspection Soil Ecological Screening Levels
[*Italicized*] - Result exceeds EPA Region 9 PRGs - Residential Soil
[Underline] - Result exceeds EPA Region 9 SSLs DAF=1
[Shaded] - Result exceeds EPA Region 9 SSLs DAF=20

bgs - below ground surface
ft - feet
PRG - Preliminary Remediation Goals
SSL - soil screening level
DAF - dilution attentuation factor
REG - regular sample
PQL - practical quantitation limit
MDL - method detection limit
mg/kg - milligram per kilogram
VQ - validation qualifier

Validation Qualifier Definitions
U - Not detected. The compound/analyte was analyzed for, but not detected above the associated reporting limit
J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed
R - The reported sample results are rejected due to the following: 1. Severe deficiencies in the supporting quality control data, 2. Anomalies noted in the sampling and/or analysis process which could affect the validity of the reported data, 3. The presence or absence of the constituent cannot be verified based on the data provided, 4. To indicate not to use a particular result in the event of a reanalysis
UJ - The compound/analyte was analyzed for, but not detected above the established reporting limit. However, review and evaluation of supporting QC data and/or sampling and analysis process have indicated that the reporting limit may be inaccurate or imprecise. The nondetect result should be estimated

Table G-9b

Comparison of Range Complex No. 5 Soil Results to Site Inspection Screening Values
Camp Adair

Location							017A011				017A012				017A013				017A014			
Sample Number							**31-Aug-06**				**6-Sep-06**				**31-Aug-06**				**7-Sep-06**			
Sample Date							**NWO-017-0010**				**NWO-017-0011**				**NWO-017-0012**				**NWO-017-0013**			
Sample Depth (bgs) (ft)							**0.08 to 0.5**				**0.08 to 0.5**				**0.08 to 0.5**				**0.08 to 0.5**			
Sample Purpose							**REG**				**REG**				**REG**				**REG**			
Fraction	**Parameter**	**Units**	**Site Inspection Soil Ecological Screening Levels**	**EPA Region 9 PRGs - Residential Soil**	**EPA Region 9 SSLs DAF=1**	**EPA Region 9 SSLs DAF=20**	**Result**	**PQL**	**MDL**	**VQ**	**Result**	**PQL**	**MDL**	**VQ**	**Result**	**PQL**	**MDL**	**VQ**	**Result**	**PQL**	**MDL**	**VQ**
Metals	Lead	mg/kg	16	400	No criteria	No criteria	11.1	1.7	0.065		**19.5**	1.7	0.068		**21.4**	1.7	0.067		10.7	1.8	0.07	

[**Bold**] - Result exceeds Site Inspection Soil Ecological Screening Levels
[*Italicized*] - Result exceeds EPA Region 9 PRGs - Residential Soil
[Underline] - Result exceeds EPA Region 9 SSLs DAF=1
[Shaded] - Result exceeds EPA Region 9 SSLs DAF=20

bgs - below ground surface
ft - feet
PRG - Preliminary Remediation Goals
SSL - soil screening level
DAF - dilution attentuation factor
REG - regular sample
PQL - practical quantitation limit
MDL - method detection limit
mg/kg - milligram per kilogram
VQ - validation qualifier

Validation Qualifier Definitions
U - Not detected. The compound/analyte was analyzed for, but not detected above the associated reporting limit
J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed
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UJ - The compound/analyte was analyzed for, but not detected above the established reporting limit. However, review and evaluation of supporting QC data and/or sampling and analysis process have indicated that the reporting limit may be inaccurate or imprecise. The nondetect result should be estimated

Table G-9c

Comparison of Range Complex No. 6 Soil Results to Site Inspection Screening Values
Camp Adair

Location							017A016				017A017				017A018				017A019			
Sample Number							11-Sep-06				11-Sep-06				11-Sep-06				11-Sep-06			
Sample Date							NWO-017-0015R				NWO-017-0016R				NWO-017-0017R				NWO-017-0018R			
Sample Depth (bgs) (ft)							0.08 to 0.5				0.08 to 0.5				0.08 to 0.5				0.07 to 0.5			
Sample Purpose							REG				REG				REG				REG			
Fraction	**Parameter**	**Units**	**Site Inspection Soil Ecological Screening Levels**	**EPA Region 9 PRGs - Residential Soil**	**EPA Region 9 SSLs DAF=1**	**EPA Region 9 SSLs DAF=20**	**Result**	**PQL**	**MDL**	**VQ**	**Result**	**PQL**	**MDL**	**VQ**	**Result**	**PQL**	**MDL**	**VQ**	**Result**	**PQL**	**MDL**	**VQ**
Metals	Lead	mg/kg	16	400	No criteria	No criteria	11.8	1.7	0.066		8.6	1.7	0.066		**29.1**	1.7	0.068		13.5	1.8	0.071	

[**Bold**] - Result exceeds Site Inspection Soil Ecological Screening Levels
[*Italicized*] - Result exceeds EPA Region 9 PRGs - Residential Soil
[Underline] - Result exceeds EPA Region 9 SSLs DAF=1
[Shaded] - Result exceeds EPA Region 9 SSLs DAF=20

bgs - below ground surface
ft - feet
PRG - Preliminary Remediation Goals
SSL - soil screening level
DAF - dilution attentuation factor
REG - regular sample
PQL - practical quantitation limit
MDL - method detection limit
mg/kg - milligram per kilogram
VQ - validation qualifier

Validation Qualifier Definitions
U - Not detected. The compound/analyte was analyzed for, but not detected above the associated reporting limit
J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed
R - The reported sample results are rejected due to the following: 1. Severe deficiencies in the supporting quality control data, 2. Anomalies noted in the sampling and/or analysis process which could affect the validity of the reported data, 3. The presence or absence of the constituent cannot be verified based on the data provided, 4. To indicate not to use a particular result in the event of a reanalysis
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Table G-9c

Comparison of Range Complex No. 6 Soil Results to Site Inspection Screening Values
Camp Adair

Location							**017A019**			
Sample Number							**11-Sep-06**			
Sample Date							**NWO-017-0018FDR**			
Sample Depth (bgs) (ft)							**0.17 to 0.5**			
Sample Purpose							**FD**			
Fraction	**Parameter**	**Units**	**Site Inspection Soil Ecological Screening Levels**	**EPA Region 9 PRGs - Residential Soil**	**EPA Region 9 SSLs DAF=1**	**EPA Region 9 SSLs DAF=20**	**Result**	**PQL**	**MDL**	**VQ**
Metals	Lead	mg/kg	16	400	No criteria	No criteria	13.8	1.8	0.069	

[**Bold**] - Result exceeds Site Inspection Soil Ecological Screening Levels
[*Italicized*] - Result exceeds EPA Region 9 PRGs - Residential Soil
[Underline] - Result exceeds EPA Region 9 SSLs DAF=1
[Shaded] - Result exceeds EPA Region 9 SSLs DAF=20

bgs - below ground surface
ft - feet
PRG - Preliminary Remediation Goals
SSL - soil screening level
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REG - regular sample
PQL - practical quantitation limit
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U - Not detected. The compound/analyte was analyzed for, but not detected above the associated reporting limit
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UJ - The compound/analyte was analyzed for, but not detected above the established reporting limit. However, review and evaluation of supporting QC data and/or sampling and analysis process have indicated that the reporting limit may be inaccurate or imprecise. The nondetect result should be estimated

Table G-9d

Comparison of Skeet Range No. 580 Soil Results to Site Inspection Screening Values
Camp Adair

Location							017A021				017A022				017A023			
Sample Number							22-Aug-06				22-Aug-06				22-Aug-06			
Sample Date							NWO-017-0019				NWO-017-0020				NWO-017-0021			
Sample Depth (bgs) (ft)							0.08 to 0.5				0 to 0.5				0 to 0.5			
Sample Purpose							REG				REG				REG			
Fraction	Parameter	Units	Site Inspection Soil Ecological Screening Levels	EPA Region 9 PRGs - Residential Soil	EPA Region 9 SSLs DAF=1	EPA Region 9 SSLs DAF=20	Result	PQL	MDL	VQ	Result	PQL	MDL	VQ	Result	PQL	MDL	VQ
Metals	Lead	mg/kg	16	400	No criteria	No criteria	**20.1**	1.6	0.063		**58.4**	1.6	0.063		**41.1**	1.6	0.063	
PAH	2-Methylnaphthalene	mg/kg	2.5	No criteria	No criteria	No criteria	0.0022	0.0073	0.0022	U	0.0021	0.0071	0.0021	U	0.0022	0.0073	0.0022	U
PAH	Acenaphthene	mg/kg	20	3700	29	570	0.0055	0.0073	0.0011	J	0.0011	0.0071	0.0011	U	0.0011	0.0073	0.0011	U
PAH	Acenaphthylene	mg/kg	682	2300	No criteria	No criteria	0.0011	0.0073	0.0011	U	0.0011	0.0071	0.0011	U	0.0011	0.0073	0.0011	U
PAH	Anthracene	mg/kg	0.1	22000	590	12000	0.0011	0.0073	0.0011	U	0.0011	0.0071	0.0011	U	0.0011	0.0073	0.0011	U
PAH	Benzo(a)anthracene	mg/kg	5.21	.62	.08	2	0.036	0.0073	0.0015		0.0014	0.0071	0.0014	U	0.0015	0.0073	0.0015	U
PAH	Benzo(a)pyrene	mg/kg	125	.062	.4	8	0.06	0.0073	0.00073		0.00071	0.0071	0.00071	U	0.00073	0.0073	0.00073	U
PAH	Benzo(b)fluoranthene	mg/kg	59.8	.62	.2	5	0.063	0.0073	0.00036		0.00036	0.0071	0.00036	U	0.00036	0.0073	0.00036	U
PAH	Benzo(ghi)perylene	mg/kg	119	2300	No criteria	No criteria	0.051	0.0073	0.0011		0.0011	0.0071	0.0011	U	0.0011	0.0073	0.0011	U
PAH	Benzo(k)fluoranthene	mg/kg	148	6.2	2	49	0.017	0.0073	0.0011		0.0011	0.0071	0.0011	U	0.0011	0.0073	0.0011	U
PAH	Chrysene	mg/kg	4.73	62	8	160	0.042	0.0073	0.00073		0.00071	0.0071	0.00071	U	0.00073	0.0073	0.00073	U
PAH	Dibenzo(a,h)anthracene	mg/kg	18.4	.062	.08	2	0.00036	0.0073	0.00036	U	0.00036	0.0071	0.00036	U	0.00036	0.0073	0.00036	U
PAH	Fluoranthene	mg/kg	0.1	2300	210	4300	0.038	0.0073	0.0018		0.0082	0.0071	0.0018		0.0018	0.0073	0.0018	U
PAH	Fluorene	mg/kg	30	2700	28	560	0.0011	0.0073	0.0011	U	0.0011	0.0071	0.0011	U	0.0011	0.0073	0.0011	U
PAH	Indeno(1,2,3-cd)pyrene	mg/kg	109	.62	.7	14	0.044	0.0073	0.0011		0.0011	0.0071	0.0011	U	0.0011	0.0073	0.0011	U
PAH	Naphthalene	mg/kg	10	56	4	84	0.0011	0.0073	0.0011	U	0.0011	0.0071	0.0011	U	0.0011	0.0073	0.0011	U
PAH	Phenanthrene	mg/kg	0.1	2300	No criteria	No criteria	0.015	0.0073	0.0014		0.005	0.0071	0.0014	J	0.0015	0.0073	0.0015	U
PAH	Pyrene	mg/kg	0.1	2300	210	4200	0.044	0.0073	0.0011		0.0068	0.0071	0.0011	J	0.0011	0.0073	0.0011	U

[**Bold**] - Result exceeds Site Inspection Soil Ecological Screening Levels
[*Italicized*] - Result exceeds EPA Region 9 PRGs - Residential Soil
[Underline] - Result exceeds EPA Region 9 SSLs DAF=1
[Shaded] - Result exceeds EPA Region 9 SSLs DAF=20

bgs - below ground surface
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PRG - Preliminary Remediation Goals
SSL - soil screening level
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Table G-9e

Comparison of Range Complex No. 1 Soil Results to Site Inspection Screening Values
Camp Adair

Location							017A024				017A025				017A026				017A027			
Sample Number							23-Aug-06				23-Aug-06				24-Aug-06				24-Aug-06			
Sample Date							NWO-017-0022				NWO-017-0023				NWO-017-0024				NWO-017-0025			
Sample Depth (bgs) (ft)							0.17 to 0.5				0.08 to 0.5				0.08 to 0.5				0.08 to 0.5			
Sample Purpose							REG				REG				REG				REG			
Fraction	Parameter	Units	Site Inspection Soil Ecological Screening Levels	EPA Region 9 PRGs - Residential Soil	EPA Region 9 SSLs DAF=1	EPA Region 9 SSLs DAF=20	Result	PQL	MDL	VQ	Result	PQL	MDL	VQ	Result	PQL	MDL	VQ	Result	PQL	MDL	VQ
Explosives	1,3,5-Trinitrobenzene	mg/kg	.376	1800	No criteria	No criteria	0.012	0.04	0.012	U	0.012	0.04	0.012	U	0.012	0.04	0.012	UJ	0.012	0.04	0.012	UJ
Explosives	1,3-Dinitrobenzene	mg/kg	.655	6.1	No criteria	No criteria	0.002	0.04	0.002	U	0.002	0.04	0.002	U	0.002	0.04	0.002	U	0.002	0.04	0.002	U
Explosives	2,4,6-Trinitrotoluene	mg/kg	6.4	16	No criteria	No criteria	0.008	0.04	0.008	U	0.008	0.04	0.008	U	0.008	0.04	0.008	U	0.008	0.04	0.008	U
Explosives	2,4-Dinitrotoluene	mg/kg	1.28	.72	.00004	.0008	0.014	0.04	0.014	U	0.014	0.04	0.014	U	0.014	0.04	0.014	U	0.014	0.04	0.014	U
Explosives	2,6-Dinitrotoluene	mg/kg	.0328	.72	.00004	.0008	0.007	0.04	0.007	U	0.007	0.04	0.007	U	0.007	0.04	0.007	U	0.007	0.04	0.007	U
Explosives	2-Amino-4,6-dinitrotoluene	mg/kg	2.1	12	No criteria	No criteria	0.01	0.04	0.01	U	0.01	0.04	0.01	U	0.01	0.04	0.01	U	0.01	0.04	0.01	U
Explosives	4-Amino-2,6-Dinitrotoluene	mg/kg	.73	12	No criteria	No criteria	0.006	0.04	0.006	UJ	0.006	0.04	0.006	U	0.006	0.04	0.006	U	0.006	0.04	0.006	U
Explosives	HMX	mg/kg	27	3100	No criteria	No criteria	0.012	0.08	0.012	U	0.012	0.08	0.012	U	0.012	0.08	0.012	U	0.012	0.08	0.012	U
Explosives	3-Nitrotoluene	mg/kg	2.4	730	No criteria	No criteria	0.022	0.08	0.022	U	0.022	0.08	0.022	U	0.022	0.08	0.022	U	0.022	0.08	0.022	U
Explosives	Nitrobenzene	mg/kg	8	20	.007	.1	0.006	0.04	0.006	U	0.006	0.04	0.006	U	0.006	0.04	0.006	U	0.006	0.04	0.006	U
Explosives	Nitroglycerine	mg/kg	71	35	No criteria	No criteria	0.04	4	0.04	UJ	0.04	4	0.04	UJ	0.04	4	0.04	U	0.04	4	0.04	U
Explosives	2-Nitrotoluene	mg/kg	2	.88	No criteria	No criteria	0.009	0.08	0.009	U	0.009	0.08	0.009	U	0.009	0.08	0.009	U	0.009	0.08	0.009	U
Explosives	PETN	mg/kg	8600	No criteria	No criteria	No criteria	0.042	0.2	0.042	U	0.041	0.2	0.041	U	0.042	0.2	0.042	U	0.042	0.2	0.042	U
Explosives	4-Nitrotoluene	mg/kg	4.4	12	No criteria	No criteria	0.036	0.08	0.036	U	0.036	0.08	0.036	U	0.036	0.08	0.036	U	0.036	0.08	0.036	U
Explosives	RDX	mg/kg	7.5	4.4	No criteria	No criteria	0.071	0.08	0.071	U	0.071	0.08	0.071	U	0.071	0.08	0.071	U	0.071	0.08	0.071	U
Explosives	Tetryl	mg/kg	.99	610	No criteria	No criteria	0.004	0.08	0.004	U	0.004	0.08	0.004	U	0.004	0.08	0.004	U	0.004	0.08	0.004	U
Metals	Aluminum	mg/kg	50	76000	No criteria	No criteria	**22800**	82	2.2		**15200**	73	2		**13500**	76.9	2.1		**17100**	74.1	2	
Metals	Antimony	mg/kg	5	31	.3	5	0.14	0.82	0.14	U	0.12	0.73	0.12	U	0.13	0.77	0.13	U	0.13	0.74	0.13	U
Metals	Barium	mg/kg	85	No criteria	No criteria	No criteria	**146**	4.1	0.19		**96.1**	3.6	0.17		77.4	3.8	0.18		**123**	3.7	0.17	
Metals	Cadmium	mg/kg	4	37	.4	8	0.22	0.41	0.11	J	0.13	0.36	0.1	J	0.18	0.38	0.11	J	0.34	0.37	0.1	J
Metals	Chromium	mg/kg	.4	210	2	38	**29.2**	1.6	0.23		**23.6**	1.5	0.2		**20.4**	1.5	0.22		**25.8**	1.5	0.21	
Metals	Cobalt	mg/kg	20	900	No criteria	No criteria	**24.1**	0.41	0.014		8.8	0.36	0.012		12.1	0.38	0.013		14	0.37	0.013	
Metals	Copper	mg/kg	50	3100	No criteria	No criteria	28.8	1.6	0.16		11.9	1.5	0.15		10.2	1.5	0.15		17	1.5	0.15	
Metals	Iron	mg/kg	200	23000	No criteria	No criteria	***31900***	41	2.6		***26400***	36.5	2.3		**19900**	38.5	2.5		***26700***	37	2.4	
Metals	Lead	mg/kg	16	400	No criteria	No criteria	13.6	1.6	0.065		7.9	1.5	0.058		9.1	1.5	0.061		9.8	1.5	0.059	
Metals	Magnesium	mg/kg	No criteria	No criteria	No criteria	No criteria	3760	82	1.5		858	73	1.3		696	76.9	1.4		1460	74.1	1.3	
Metals	Manganese	mg/kg	100	1800	No criteria	No criteria	**806**	1.6	0.047		**600**	1.5	0.042		**515**	1.5	0.044		**613**	1.5	0.042	
Metals	Mercury	mg/kg	0.1	23	No criteria	No criteria	0.089	0.03	0.0088		0.034	0.029	0.0084		0.028	0.026	0.0074		0.035	0.029	0.0085	
Metals	Molybdenum	mg/kg	2	390	No criteria	No criteria	0.6	4.1	0.24	J	0.34	3.6	0.21	J	0.29	3.8	0.22	J	0.35	3.7	0.21	J
Metals	Nickel	mg/kg	30	1600	7	130	13.8	0.82	0.072		7.4	0.73	0.064		7.6	0.77	0.068		11.4	0.74	0.065	
Metals	Strontium	mg/kg	32875	47000	No criteria	No criteria	41.4	1.6	0.075		6	1.5	0.067		3.5	1.5	0.071	J	5.8	1.5	0.068	J
Metals	Titanium	mg/kg	1000	100000	No criteria	No criteria	539	1.6	0.25		360	1.5	0.22		317	1.5	0.23		341	1.5	0.22	
Metals	Zinc	mg/kg	50	23000	620	12000	**52.1**	8.2	0.4		28.6	7.3	0.36		22.6	7.7	0.38		35.4	7.4	0.36	

[**Bold**] - Result exceeds Site Inspection Soil Ecological Screening Levels
[*Italicized*] - Result exceeds EPA Region 9 PRGs - Residential Soil
[Underline] - Result exceeds EPA Region 9 SSLs DAF=1
[Shaded] - Result exceeds EPA Region 9 SSLs DAF=20

bgs - below ground surface
ft - feet
PRG - Preliminary Remediation Goals
SSL - soil screening level
DAF - dilution attentuation factor
REG - regular sample
PQL - practical quantitation limit
MDL - method detection limit
mg/kg - milligram per kilogram
VQ - validation qualifier

HMX - octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
PETN - Pentaerythritol tetranitrate
RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine
Tetryl - methyl-2,4,6-trinitrophenylnitramine

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Table G-9f

Comparison of Range Complex No. 2 Soil Results to Site Inspection Screening Values
Camp Adair

Location							017A031				017A032				017A033				017A034			
Sample Number							23-Aug-06				23-Aug-06				24-Aug-06				23-Aug-06			
Sample Date							NWO-017-0027				NWO-017-0028				NWO-017-0029				NWO-017-0030			
Sample Depth (bgs) (ft)							0.08 to 0.5				0.08 to 0.5				0.08 to 0.5				0.17 to 0.5			
Sample Purpose							REG				REG				REG				REG			
Fraction	Parameter	Units	Site Inspection Soil Ecological Screening Levels	EPA Region 9 PRGs - Residential Soil	EPA Region 9 SSLs DAF=1	EPA Region 9 SSLs DAF=20	Result	PQL	MDL	VQ	Result	PQL	MDL	VQ	Result	PQL	MDL	VQ	Result	PQL	MDL	VQ
Explosives	1,3,5-Trinitrobenzene	mg/kg	.376	1800	No criteria	No criteria	0.012	0.04	0.012	U	0.012	0.04	0.012	U	0.012	0.04	0.012	UJ	0.012	0.04	0.012	U
Explosives	1,3-Dinitrobenzene	mg/kg	.655	6.1	No criteria	No criteria	0.002	0.04	0.002	U	0.002	0.04	0.002	U	0.002	0.04	0.002	U	0.002	0.04	0.002	U
Explosives	2,4,6-Trinitrotoluene	mg/kg	6.4	16	No criteria	No criteria	0.008	0.04	0.008	U	0.008	0.04	0.008	U	0.008	0.04	0.008	U	0.008	0.04	0.008	U
Explosives	2,4-Dinitrotoluene	mg/kg	1.28	.72	.00004	.0008	0.014	0.04	0.014	U	0.014	0.04	0.014	U	0.014	0.04	0.014	U	0.014	0.04	0.014	U
Explosives	2,6-Dinitrotoluene	mg/kg	.0328	.72	.00004	.0008	0.007	0.04	0.007	U	0.007	0.04	0.007	U	0.007	0.04	0.007	U	0.007	0.04	0.007	U
Explosives	2-Amino-4,6-dinitrotoluene	mg/kg	2.1	12	No criteria	No criteria	0.01	0.04	0.01	U	0.01	0.04	0.01	U	0.01	0.04	0.01	U	0.01	0.04	0.01	U
Explosives	4-Amino-2,6-Dinitrotoluene	mg/kg	.73	12	No criteria	No criteria	0.006	0.04	0.006	U	0.006	0.04	0.006	U	0.006	0.04	0.006	U	0.006	0.04	0.006	U
Explosives	HMX	mg/kg	27	3100	No criteria	No criteria	0.012	0.08	0.012	U	0.012	0.08	0.012	U	0.012	0.08	0.012	U	0.012	0.08	0.012	U
Explosives	3-Nitrotoluene	mg/kg	2.4	730	No criteria	No criteria	0.022	0.08	0.022	U	0.022	0.08	0.022	U	0.022	0.08	0.022	U	0.022	0.08	0.022	U
Explosives	Nitrobenzene	mg/kg	8	20	.007	.1	0.006	0.04	0.006	U	0.006	0.04	0.006	U	0.006	0.04	0.006	U	0.006	0.04	0.006	U
Explosives	Nitroglycerine	mg/kg	71	35	No criteria	No criteria	0.04	4	0.04	UJ	0.04	4	0.04	UJ	0.04	4	0.04	U	0.04	4	0.04	UJ
Explosives	2-Nitrotoluene	mg/kg	2	.88	No criteria	No criteria	0.009	0.08	0.009	U	0.009	0.08	0.009	U	0.009	0.08	0.009	U	0.009	0.08	0.009	U
Explosives	PETN	mg/kg	8600	No criteria	No criteria	No criteria	0.042	0.2	0.042	U	0.042	0.2	0.042	U	0.041	0.2	0.041	U	0.041	0.2	0.041	U
Explosives	4-Nitrotoluene	mg/kg	4.4	12	No criteria	No criteria	0.036	0.08	0.036	U	0.036	0.08	0.036	U	0.036	0.08	0.036	U	0.036	0.08	0.036	U
Explosives	RDX	mg/kg	7.5	4.4	No criteria	No criteria	0.071	0.08	0.071	U	0.071	0.08	0.071	U	0.071	0.08	0.071	U	0.071	0.08	0.071	U
Explosives	Tetryl	mg/kg	.99	610	No criteria	No criteria	0.004	0.08	0.004	U	0.004	0.08	0.004	U	0.004	0.08	0.004	U	0.004	0.08	0.004	U
Metals	Aluminum	mg/kg	50	76000	No criteria	No criteria	**21500**	84	2.3		**24100**	78.1	2.1		**21800**	160	4.3		**21600**	82	2.2	
Metals	Antimony	mg/kg	5	31	.3	5	0.19	0.84	0.14	J	0.16	0.78	0.13	J	0.27	1.6	0.27	U	0.16	0.82	0.14	J
Metals	Barium	mg/kg	85	No criteria	No criteria	No criteria	**179**	4.2	0.19		**168**	3.9	0.18		**182**	8	0.37		**141**	4.1	0.19	
Metals	Cadmium	mg/kg	4	37	.4	8	0.3	0.42	0.12	J	0.31	0.39	0.11	J	0.39	0.8	0.22	J	0.24	0.41	0.11	J
Metals	Chromium	mg/kg	.4	210	2	38	**27.5**	1.7	0.24		**29.1**	1.6	0.22		**32.2**	3.2	0.45		**31.6**	1.6	0.23	
Metals	Cobalt	mg/kg	20	900	No criteria	No criteria	14.9	0.42	0.014		16	0.39	0.013		16.4	0.8	0.027		**22.5**	0.41	0.014	
Metals	Copper	mg/kg	50	3100	No criteria	No criteria	39.6	1.7	0.17		18.6	1.6	0.16		17.3	3.2	0.32		36.7	1.6	0.16	
Metals	Iron	mg/kg	200	23000	No criteria	No criteria	***32100***	42	2.7		***31300***	39.1	2.5		***30800***	80	5.1		***37100***	41	2.6	
Metals	Lead	mg/kg	16	400	No criteria	No criteria	13	1.7	0.066		14.9	1.6	0.062		15.1	3.2	0.13		**22.9**	1.6	0.065	
Metals	Magnesium	mg/kg	No criteria	No criteria	No criteria	No criteria	4880	84	1.5		4590	78.1	1.4		4000	160	2.9		2890	82	1.5	
Metals	Manganese	mg/kg	100	1800	No criteria	No criteria	**740**	1.7	0.048		**856**	1.6	0.045		**952**	3.2	0.091		**724**	1.6	0.047	
Metals	Mercury	mg/kg	0.1	23	No criteria	No criteria	0.041	0.03	0.0088		0.024	0.033	0.0095	U	0.026	0.026	0.0075		0.086	0.032	0.0093	
Metals	Molybdenum	mg/kg	2	390	No criteria	No criteria	0.61	4.2	0.24	J	0.48	3.9	0.23	J	0.46	8	0.46	U	0.55	4.1	0.24	J
Metals	Nickel	mg/kg	30	1600	7	130	18.8	0.84	0.074		17.8	0.78	0.069		17.9	1.6	0.14		13.5	0.82	0.072	
Metals	Strontium	mg/kg	32875	47000	No criteria	No criteria	41	1.7	0.077		23.4	1.6	0.072		25.3	3.2	0.15	J	27.9	1.6	0.075	
Metals	Titanium	mg/kg	1000	100000	No criteria	No criteria	**1560**	1.7	0.25		**1680**	1.6	0.23		**1490**	3.2	0.48		312	1.6	0.25	
Metals	Zinc	mg/kg	50	23000	620	12000	**82.3**	8.4	0.41		**71.9**	7.8	0.38		**63.3**	16	0.78		**59.5**	8.2	0.4	

[**Bold**] - Result exceeds Site Inspection Soil Ecological Screening Levels
[*Italicized*] - Result exceeds EPA Region 9 PRGs - Residential Soil
[Underline] - Result exceeds EPA Region 9 SSLs DAF=1
[Shaded] - Result exceeds EPA Region 9 SSLs DAF=20

bgs - below ground surface
ft - feet
PRG - Preliminary Remediation Goals
SSL - soil screening level
DAF - dilution attentuation factor
REG - regular sample
PQL - practical quantitation limit
MDL - method detection limit
mg/kg - milligram per kilogram
VQ - validation qualifier

HMX - octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
PETN - Pentaerythritol tetranitrate
RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine
Tetryl - methyl-2,4,6-trinitrophenylnitramine

Validation Qualifier Definitions
U - Not detected. The compound/analyte was analyzed for, but not detected above the associated reporting limit
J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed
R - The reported sample results are rejected due to the following: 1. Severe deficiencies in the supporting quality control data, 2. Anomalies noted in the sampling and/or analysis process which could affect the validity of the reported data, 3. The presence or absence of the constituent cannot be verified based on the data provided, 4. To indicate not to use a particular result in the event of a reanalysis
UJ - The compound/analyte was analyzed for, but not detected above the established reporting limit. However, review and evaluation of supporting QC data and/or sampling and analysis process have indicated that the reporting limit may be inaccurate or imprecise. The nondetect result should be estimated

Table G-9f

Comparison of Range Complex No. 2 Soil Results to Site Inspection Screening Values
Camp Adair

Location							017A035				017A036				017A037			
Sample Number							29-Aug-06				29-Aug-06				28-Aug-06			
Sample Date							NWO-017-0031				NWO-017-0032				NWO-017-0033			
Sample Depth (bgs) (ft)							0.08 to 0.5				0.08 to 0.5				0.08 to 0.5			
Sample Purpose							REG				REG				REG			
Fraction	Parameter	Units	Site Inspection Soil Ecological Screening Levels	EPA Region 9 PRGs - Residential Soil	EPA Region 9 SSLs DAF=1	EPA Region 9 SSLs DAF=20	Result	PQL	MDL	VQ	Result	PQL	MDL	VQ	Result	PQL	MDL	VQ
Explosives	1,3,5-Trinitrobenzene	mg/kg	.376	1800	No criteria	No criteria	0.012	0.04	0.012	U	0.012	0.04	0.012	U	0.03	0.1	0.03	U
Explosives	1,3-Dinitrobenzene	mg/kg	.655	6.1	No criteria	No criteria	0.002	0.04	0.002	U	0.002	0.04	0.002	U	0.005	0.1	0.005	U
Explosives	2,4,6-Trinitrotoluene	mg/kg	6.4	16	No criteria	No criteria	0.008	0.04	0.008	U	0.008	0.04	0.008	U	0.02	0.1	0.02	U
Explosives	2,4-Dinitrotoluene	mg/kg	1.28	.72	.00004	.0008	0.014	0.04	0.014	U	0.014	0.04	0.014	U	0.035	0.1	0.035	U
Explosives	2,6-Dinitrotoluene	mg/kg	.0328	.72	.00004	.0008	0.007	0.04	0.007	U	0.007	0.04	0.007	U	0.018	0.1	0.018	U
Explosives	2-Amino-4,6-dinitrotoluene	mg/kg	2.1	12	No criteria	No criteria	0.01	0.04	0.01	U	0.01	0.04	0.01	U	0.025	0.1	0.025	U
Explosives	4-Amino-2,6-Dinitrotoluene	mg/kg	.73	12	No criteria	No criteria	0.006	0.04	0.006	U	0.006	0.04	0.006	U	0.015	0.1	0.015	U
Explosives	HMX	mg/kg	27	3100	No criteria	No criteria	0.012	0.08	0.012	U	0.012	0.08	0.012	U	0.03	0.2	0.03	U
Explosives	m-Nitrotoluene	mg/kg	2.4	730	No criteria	No criteria	0.022	0.08	0.022	U	0.022	0.08	0.022	U	0.055	0.2	0.055	U
Explosives	Nitrobenzene	mg/kg	8	20	.007	.1	0.006	0.04	0.006	U	0.006	0.04	0.006	U	0.016	0.1	0.016	U
Explosives	Nitroglycerine	mg/kg	71	35	No criteria	No criteria	0.04	4	0.04	U	0.04	4	0.04	U	0.01	1	0.01	U
Explosives	o-Nitrotoluene	mg/kg	2	.88	No criteria	No criteria	0.009	0.08	0.009	U	0.009	0.08	0.009	U	0.022	0.2	0.022	U
Explosives	PETN	mg/kg	8600	No criteria	No criteria	No criteria	0.042	0.2	0.042	U	0.042	0.2	0.042	U	0.01	0.05	0.01	U
Explosives	p-Nitrotoluene	mg/kg	4.4	12	No criteria	No criteria	0.036	0.08	0.036	U	0.036	0.08	0.036	U	0.09	0.2	0.09	U
Explosives	RDX	mg/kg	7.5	4.4	No criteria	No criteria	0.071	0.08	0.071	U	0.071	0.08	0.071	U	0.18	0.2	0.18	U
Explosives	Tetryl	mg/kg	.99	610	No criteria	No criteria	0.004	0.08	0.004	U	0.004	0.08	0.004	U	0.011	0.2	0.011	U
Metals	Aluminum	mg/kg	50	76000	No criteria	No criteria	**23500**	82	2.2		**25200**	78.1	2.1		**2680**	8.1	0.22	
Metals	Antimony	mg/kg	5	31	.3	5	0.14	0.82	0.14	U	0.13	0.78	0.13	U	0.014	0.081	0.014	U
Metals	Barium	mg/kg	85	No criteria	No criteria	No criteria	**139**	4.1	0.19		**112**	3.9	0.18		17.8	0.4	0.019	
Metals	Cadmium	mg/kg	4	37	.4	8	0.19	0.41	0.11	J	0.16	0.39	0.11	J	0.032	0.04	0.011	J
Metals	Chromium	mg/kg	.4	210	2	38	**26.1**	1.6	0.23		**24.9**	1.6	0.22		**2.9**	0.16	0.023	U
Metals	Cobalt	mg/kg	20	900	No criteria	No criteria	13.6	0.82	0.014		10.5	0.78	0.013		2.1	0.081	0.0014	
Metals	Copper	mg/kg	50	3100	No criteria	No criteria	16.9	1.6	0.16		28.2	1.6	0.16		2	0.16	0.016	
Metals	Iron	mg/kg	200	23000	No criteria	No criteria	***25700***	41	2.6		***28100***	39.1	2.5		**3350**	4	0.26	
Metals	Lead	mg/kg	16	400	No criteria	No criteria	12.8	1.6	0.065		10.1	1.6	0.062		1.6	0.16	0.0064	
Metals	Magnesium	mg/kg	No criteria	No criteria	No criteria	No criteria	2980	82	1.5		2270	78.1	1.4		419	8.1	0.15	
Metals	Manganese	mg/kg	100	1800	No criteria	No criteria	**770**	1.6	0.047		**615**	1.6	0.045		**104**	0.16	0.0046	
Metals	Mercury	mg/kg	0.1	23	No criteria	No criteria	0.043	0.032	0.0092	U	0.027	0.028	0.008	U	0.024	0.032	0.0093	J
Metals	Molybdenum	mg/kg	2	390	No criteria	No criteria	0.38	4.1	0.24	J	0.82	3.9	0.23	J	0.042	0.4	0.023	J
Metals	Nickel	mg/kg	30	1600	7	130	13	0.82	0.072		10.6	0.78	0.069		1.6	0.081	0.0071	
Metals	Strontium	mg/kg	32875	47000	No criteria	No criteria	12.7	1.6	0.075	J	19.2	1.6	0.072	J	2.3	0.16	0.0074	J
Metals	Titanium	mg/kg	1000	100000	No criteria	No criteria	865	1.6	0.25		664	1.6	0.23		104	0.16	0.024	
Metals	Zinc	mg/kg	50	23000	620	12000	42.8	8.2	0.4		**64.6**	7.8	0.38		5.6	0.81	0.04	

[**Bold**] - Result exceeds Site Inspection Soil Ecological Screening Levels
[*Italicized*] - Result exceeds EPA Region 9 PRGs - Residential Soil
[Underline] - Result exceeds EPA Region 9 SSLs DAF=1
[Shaded] - Result exceeds EPA Region 9 SSLs DAF=20

PRG - Preliminary Remediation Goals
SSL - soil screening level
DAF - dilution attentuation factor
REG - regular sample
PQL - practical quantitation limit
MDL - method detection limit
mg/kg - milligram per kilogram
VQ - validation qualifier

HMX - octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
PETN - Pentaerythritol tetranitrate
RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine
TETRYL - methyl-2,4,6-trinitrophenylnitramine

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Table G-9g

Comparison of Bombing Target No. 1 Soil Results to Site Inspection Screening Values
Camp Adair

Location							**017A042**			
Sample Number							**25-Aug-06**			
Sample Date							**NWO-017-0034**			
Sample Depth (bgs) (ft)							**0.08 to 0.5**			
Sample Purpose							**REG**			
Fraction	**Parameter**	**Units**	**Site Inspection Soil Ecological Screening Levels**	**EPA Region 9 PRGs - Residential Soil**	**EPA Region 9 SSLs DAF=1**	**EPA Region 9 SSLs DAF=20**	**Result**	**PQL**	**MDL**	**VQ**
Explosives	1,3,5-Trinitrobenzene	mg/kg	.376	1800	No criteria	No criteria	0.012	0.04	0.012	UJ
Explosives	1,3-Dinitrobenzene	mg/kg	.655	6.1	No criteria	No criteria	0.002	0.04	0.002	UJ
Explosives	2,4,6-Trinitrotoluene	mg/kg	6.4	16	No criteria	No criteria	0.008	0.04	0.008	U
Explosives	2,4-Dinitrotoluene	mg/kg	1.28	.72	.00004	.0008	0.014	0.04	0.014	UJ
Explosives	2,6-Dinitrotoluene	mg/kg	.0328	.72	.00004	.0008	0.007	0.04	0.007	U
Explosives	2-Amino-4,6-dinitrotoluene	mg/kg	2.1	12	No criteria	No criteria	0.01	0.04	0.01	UJ
Explosives	4-Amino-2,6-Dinitrotoluene	mg/kg	.73	12	No criteria	No criteria	0.006	0.04	0.006	UJ
Explosives	HMX	mg/kg	27	3100	No criteria	No criteria	0.012	0.08	0.012	U
Explosives	3-Nitrotoluene	mg/kg	2.4	730	No criteria	No criteria	0.022	0.08	0.022	U
Explosives	Nitrobenzene	mg/kg	8	20	.007	.1	0.006	0.04	0.006	U
Explosives	Nitroglycerine	mg/kg	71	35	No criteria	No criteria	0.04	4	0.04	U
Explosives	2-Nitrotoluene	mg/kg	2	.88	No criteria	No criteria	0.009	0.08	0.009	UJ
Explosives	PETN	mg/kg	8600	No criteria	No criteria	No criteria	0.041	0.2	0.041	U
Explosives	4-Nitrotoluene	mg/kg	4.4	12	No criteria	No criteria	0.036	0.08	0.036	U
Explosives	RDX	mg/kg	7.5	4.4	No criteria	No criteria	0.071	0.08	0.071	U
Explosives	Tetryl	mg/kg	.99	610	No criteria	No criteria	0.004	0.08	0.004	U
Metals	Aluminum	mg/kg	50	76000	No criteria	No criteria	**19500**	81.3	2.2	
Metals	Antimony	mg/kg	5	31	.3	5	0.19	0.81	0.14	J
Metals	Barium	mg/kg	85	No criteria	No criteria	No criteria	**154**	4.1	0.19	
Metals	Cadmium	mg/kg	4	37	.4	8	0.23	0.41	0.11	J
Metals	Chromium	mg/kg	.4	210	2	38	**25.4**	1.6	0.23	J
Metals	Cobalt	mg/kg	20	900	No criteria	No criteria	14.4	0.41	0.014	
Metals	Copper	mg/kg	50	3100	No criteria	No criteria	14.5	1.6	0.16	
Metals	Iron	mg/kg	200	23000	No criteria	No criteria	***25200***	40.7	2.6	
Metals	Lead	mg/kg	16	400	No criteria	No criteria	14.3	1.6	0.064	
Metals	Magnesium	mg/kg	No criteria	No criteria	No criteria	No criteria	3350	81.3	1.5	
Metals	Manganese	mg/kg	100	1800	No criteria	No criteria	**833**	1.6	0.046	
Metals	Mercury	mg/kg	0.1	23	No criteria	No criteria	0.029	0.032	0.0093	J
Metals	Molybdenum	mg/kg	2	390	No criteria	No criteria	0.26	4.1	0.24	J
Metals	Nickel	mg/kg	30	1600	7	130	13.5	0.81	0.072	
Metals	Strontium	mg/kg	32875	47000	No criteria	No criteria	17.7	1.6	0.075	J
Metals	Titanium	mg/kg	1000	100000	No criteria	No criteria	800	1.6	0.24	
Metals	Zinc	mg/kg	50	23000	620	12000	44.6	8.1	0.4	J

[**Bold**] - Result exceeds Site Inspection Soil Ecological Screening Levels
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[Underline] - Result exceeds EPA Region 9 SSLs DAF=1
[Shaded] - Result exceeds EPA Region 9 SSLs DAF=20

bgs - below ground surface
ft - feet
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SSL - soil screening level
DAF - dilution attentuation factor
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PQL - practical quantitation limit
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mg/kg - milligram per kilogram
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HMX - octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
PETN - Pentaerythritol tetranitrate
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Tetryl - methyl-2,4,6-trinitrophenylnitramine

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Table G-9h

Comparison of Range Complex No. 3 Soil Results to Site Inspection Screening Values
Camp Adair

Location							017A045				017A046				017A047				017A048			
Sample Number							28-Aug-06				28-Aug-06				29-Aug-06				28-Aug-06			
Sample Date							NWO-017-0035				NWO-017-0036				NWO-017-0037				NWO-017-0038			
Sample Depth (bgs) (ft)							0.08 to 0.5				0.08 to 0.5				0.08 to 0.5				0.08 to 0.5			
Sample Purpose							REG				REG				REG				REG			
Fraction	Parameter	Units	Site Inspection Soil Ecological Screening Levels	EPA Region 9 PRGs - Residential Soil	EPA Region 9 SSLs DAF=1	EPA Region 9 SSLs DAF=20	Result	PQL	MDL	VQ	Result	PQL	MDL	VQ	Result	PQL	MDL	VQ	Result	PQL	MDL	VQ
Explosives	1,3,5-Trinitrobenzene	mg/kg	.376	1800	No criteria	No criteria	0.012	0.04	0.012	U	0.012	0.04	0.012	U	0.012	0.04	0.012	U	0.012	0.04	0.012	U
Explosives	1,3-Dinitrobenzene	mg/kg	.655	6.1	No criteria	No criteria	0.002	0.04	0.002	U	0.002	0.04	0.002	U	0.002	0.04	0.002	U	0.002	0.04	0.002	U
Explosives	2,4,6-Trinitrotoluene	mg/kg	6.4	16	No criteria	No criteria	0.008	0.04	0.008	U	0.008	0.04	0.008	U	0.008	0.04	0.008	U	0.008	0.04	0.008	U
Explosives	2,4-Dinitrotoluene	mg/kg	1.28	.72	.00004	.0008	0.014	0.04	0.014	U	0.014	0.04	0.014	U	0.014	0.04	0.014	U	0.014	0.04	0.014	U
Explosives	2,6-Dinitrotoluene	mg/kg	.0328	.72	.00004	.0008	0.007	0.04	0.007	U	**0.021**	0.04	0.007	J	**0.02**	0.04	0.007	J	0.007	0.04	0.007	U
Explosives	2-Amino-4,6-dinitrotoluene	mg/kg	2.1	12	No criteria	No criteria	0.01	0.04	0.01	U	0.01	0.04	0.01	U	0.01	0.04	0.01	U	0.01	0.04	0.01	U
Explosives	4-Amino-2,6-Dinitrotoluene	mg/kg	.73	12	No criteria	No criteria	0.006	0.04	0.006	U	0.006	0.04	0.006	U	0.006	0.04	0.006	U	0.006	0.04	0.006	U
Explosives	HMX	mg/kg	27	3100	No criteria	No criteria	0.012	0.08	0.012	U	0.012	0.08	0.012	U	0.012	0.08	0.012	U	0.012	0.08	0.012	U
Explosives	3-Nitrotoluene	mg/kg	2.4	730	No criteria	No criteria	0.022	0.08	0.022	U	0.022	0.08	0.022	U	0.022	0.08	0.022	U	0.022	0.08	0.022	U
Explosives	Nitrobenzene	mg/kg	8	20	.007	.1	0.006	0.04	0.006	U	0.006	0.04	0.006	U	0.006	0.04	0.006	U	0.006	0.04	0.006	U
Explosives	Nitroglycerine	mg/kg	71	35	No criteria	No criteria	0.04	4	0.04	U	0.04	4	0.04	U	0.04	4	0.04	U	0.04	4	0.04	U
Explosives	2-Nitrotoluene	mg/kg	2	.88	No criteria	No criteria	0.009	0.08	0.009	U	0.009	0.08	0.009	U	0.009	0.08	0.009	U	0.009	0.08	0.009	U
Explosives	PETN	mg/kg	8600	No criteria	No criteria	No criteria	0.041	0.2	0.041	U	0.042	0.2	0.042	U	0.042	0.2	0.042	U	0.042	0.2	0.042	U
Explosives	4-Nitrotoluene	mg/kg	4.4	12	No criteria	No criteria	0.036	0.08	0.036	U	0.036	0.08	0.036	U	0.036	0.08	0.036	U	0.036	0.08	0.036	U
Explosives	RDX	mg/kg	7.5	4.4	No criteria	No criteria	0.071	0.08	0.071	U	0.071	0.08	0.071	U	0.071	0.08	0.071	U	0.071	0.08	0.071	U
Explosives	Tetryl	mg/kg	.99	610	No criteria	No criteria	0.004	0.08	0.004	U	0.004	0.08	0.004	U	0.004	0.08	0.004	U	0.004	0.08	0.004	U
Metals	Aluminum	mg/kg	50	76000	No criteria	No criteria	**27800**	80	2.2		**33300**	78.7	2.1		**30300**	78.1	2.1		**26900**	83.3	2.2	
Metals	Antimony	mg/kg	5	31	.3	5	0.27	0.8	0.14	J	0.26	0.79	0.13	J	0.26	0.78	0.13	J	0.18	0.83	0.14	J
Metals	Barium	mg/kg	85	No criteria	No criteria	No criteria	**168**	4	0.18		**257**	3.9	0.18		**258**	3.9	0.18		**200**	4.2	0.19	
Metals	Cadmium	mg/kg	4	37	.4	8	0.21	0.4	0.11	J	0.21	0.39	0.11	J	0.18	0.39	0.11	J	0.19	0.42	0.12	J
Metals	Chromium	mg/kg	.4	210	2	38	**40.6**	1.6	0.22		**73.6**	1.6	0.22		**36.4**	1.6	0.22		**31.2**	1.7	0.23	
Metals	Cobalt	mg/kg	20	900	No criteria	No criteria	17.9	0.8	0.014		15.1	0.79	0.013		19	0.78	0.013		**20.1**	0.83	0.014	
Metals	Copper	mg/kg	50	3100	No criteria	No criteria	36.4	1.6	0.16		43.7	1.6	0.16		40.5	1.6	0.16		43.2	1.7	0.17	
Metals	Iron	mg/kg	200	23000	No criteria	No criteria	***43300***	40	2.6		***44100***	39.4	2.5		***46000***	39.1	2.5		***45000***	41.7	2.7	
Metals	Lead	mg/kg	16	400	No criteria	No criteria	**16.5**	1.6	0.063		15.4	1.6	0.062		**17**	1.6	0.062		13.5	1.7	0.066	
Metals	Magnesium	mg/kg	No criteria	No criteria	No criteria	No criteria	4820	80	1.4		4950	78.7	1.4		3980	78.1	1.4		3710	83.3	1.5	
Metals	Manganese	mg/kg	100	1800	No criteria	No criteria	**529**	1.6	0.046		**559**	1.6	0.045		**1100**	1.6	0.045		**793**	1.7	0.048	
Metals	Mercury	mg/kg	0.1	23	No criteria	No criteria	0.031	0.031	0.009	U	0.033	0.025	0.0072	U	0.045	0.024	0.0068	U	0.027	0.03	0.0086	U
Metals	Molybdenum	mg/kg	2	390	No criteria	No criteria	0.73	4	0.23	J	**5.7**	3.9	0.23		0.86	3.9	0.23	J	0.71	4.2	0.24	J
Metals	Nickel	mg/kg	30	1600	7	130	26.8	0.8	0.07		**47.9**	0.79	0.069		20.5	0.78	0.069		16.4	0.83	0.073	
Metals	Strontium	mg/kg	32875	47000	No criteria	No criteria	27.8	1.6	0.074	J	55	1.6	0.072	J	35.1	1.6	0.072	J	33.5	1.7	0.077	J
Metals	Titanium	mg/kg	1000	100000	No criteria	No criteria	320	1.6	0.24		262	1.6	0.24		332	1.6	0.23		314	1.7	0.25	
Metals	Zinc	mg/kg	50	23000	620	12000	**75.1**	8	0.39		**88.2**	7.9	0.39		**72.6**	7.8	0.38		**54.8**	8.3	0.41	

[**Bold**] - Result exceeds Site Inspection Soil Ecological Screening Levels
[*Italicized*] - Result exceeds EPA Region 9 PRGs - Residential Soil
[Underline] - Result exceeds EPA Region 9 SSLs DAF=1
[Shaded] - Result exceeds EPA Region 9 SSLs DAF=20

bgs - below ground surface
ft - feet
PRG - Preliminary Remediation Goals
SSL - soil screening level
DAF - dilution attentuation factor
REG - regular sample
PQL - practical quantitation limit
MDL - method detection limit
mg/kg - milligram per kilogram
VQ - validation qualifier

HMX - octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
PETN - Pentaerythritol tetranitrate
RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine
Tetryl - methyl-2,4,6-trinitrophenylnitramine

Validation Qualifier Definitions
U - Not detected. The compound/analyte was analyzed for, but not detected above the associated reporting limit
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R - The reported sample results are rejected due to the following: 1. Severe deficiencies in the supporting quality control data, 2. Anomalies noted in the sampling and/or analysis process which could affect the validity of the reported data, 3. The presence or absence of the constituent cannot be verified based on the data provided, 4. To indicate not to use a particular result in the event of a reanalysis
UJ - The compound/analyte was analyzed for, but not detected above the established reporting limit. However, review and evaluation of supporting QC data and/or sampling and analysis process have indicated that the reporting limit may be inaccurate or imprecise. The nondetect result should be estimated

Table G-9i

Comparison of Mortar Range Soil Results to Site Inspection Screening Values
Camp Adair

Location							017A051				017A052				017A052A				017A052A			
Sample Number							7-Sep-06				7-Sep-06				11-Sep-06				11-Sep-06			
Sample Date							NWO-017-0039R				NWO-017-0040R				NWO-017-0040RR				NWO-017-0040RR-ED			
Sample Depth (bgs) (ft)							0.08 to 0.5				0.08 to 0.5				0.08 to 0.5				0.08 to 0.5			
Sample Purpose							REG				REG				REG				FD			
Fraction	Parameter	Units	Site Inspection Soil Ecological Screening Levels	EPA Region 9 PRGs - Residential Soil	EPA Region 9 SSLs DAF=1	EPA Region 9 SSLs DAF=20	Result	PQL	MDL	VQ	Result	PQL	MDL	VQ	Result	PQL	MDL	VQ	Result	PQL	MDL	VQ
Explosives	1,3,5-Trinitrobenzene	mg/kg	.376	1800	No criteria	No criteria	0.012	0.04	0.012	UJ	0.012	0.04	0.012	UJ	0.012	0.04	0.012	UJ	0.012	0.04	0.012	UJ
Explosives	1,3-Dinitrobenzene	mg/kg	.655	6.1	No criteria	No criteria	0.002	0.04	0.002	U	0.002	0.04	0.002	U	0.002	0.04	0.002	U	0.002	0.04	0.002	U
Explosives	2,4,6-Trinitrotoluene	mg/kg	6.4	16	No criteria	No criteria	0.008	0.04	0.008	U	0.008	0.04	0.008	U	0.008	0.04	0.008	U	0.008	0.04	0.008	U
Explosives	2,4-Dinitrotoluene	mg/kg	1.28	.72	.00004	.0008	0.014	0.04	0.014	U	0.014	0.04	0.014	U	0.014	0.04	0.014	U	0.014	0.04	0.014	U
Explosives	2,6-Dinitrotoluene	mg/kg	.0328	.72	.00004	.0008	0.007	0.04	0.007	U	0.007	0.04	0.007	U	0.007	0.04	0.007	U	0.007	0.04	0.007	U
Explosives	2-Amino-4,6-dinitrotoluene	mg/kg	2.1	12	No criteria	No criteria	0.01	0.04	0.01	U	0.01	0.04	0.01	U	0.01	0.04	0.01	U	0.01	0.04	0.01	U
Explosives	4-Amino-2,6-Dinitrotoluene	mg/kg	.73	12	No criteria	No criteria	0.006	0.04	0.006	U	0.006	0.04	0.006	U	0.006	0.04	0.006	U	0.006	0.04	0.006	U
Explosives	HMX	mg/kg	27	3100	No criteria	No criteria	0.012	0.08	0.012	U	0.012	0.08	0.012	U	0.012	0.08	0.012	U	0.012	0.08	0.012	U
Explosives	3-Nitrotoluene	mg/kg	2.4	730	No criteria	No criteria	0.022	0.08	0.022	U	0.022	0.08	0.022	U	0.022	0.08	0.022	U	0.022	0.08	0.022	U
Explosives	Nitrobenzene	mg/kg	8	20	.007	.1	0.006	0.04	0.006	U	0.006	0.04	0.006	U	0.006	0.04	0.006	U	0.006	0.04	0.006	U
Explosives	Nitroglycerine	mg/kg	71	35	No criteria	No criteria	0.04	4	0.04	U	0.04	4	0.04	U	0.04	4	0.04	U	0.04	4	0.04	U
Explosives	2-Nitrotoluene	mg/kg	2	.88	No criteria	No criteria	0.009	0.08	0.009	U	0.009	0.08	0.009	U	0.009	0.08	0.009	U	0.009	0.08	0.009	U
Explosives	PETN	mg/kg	8600	No criteria	No criteria	No criteria	0.042	0.2	0.042	U	0.042	0.2	0.042	U	0.042	0.2	0.042	U	0.042	0.2	0.042	U
Explosives	4-Nitrotoluene	mg/kg	4.4	12	No criteria	No criteria	0.036	0.08	0.036	U	0.036	0.08	0.036	U	0.036	0.08	0.036	U	0.036	0.08	0.036	U
Explosives	RDX	mg/kg	7.5	4.4	No criteria	No criteria	0.071	0.08	0.071	U	0.071	0.08	0.071	U	0.071	0.08	0.071	U	0.071	0.08	0.071	U
Explosives	Tetryl	mg/kg	.99	610	No criteria	No criteria	0.004	0.08	0.004	U	0.004	0.08	0.004	U	0.004	0.08	0.004	U	0.004	0.08	0.004	U
Metals	Aluminum	mg/kg	50	76000	No criteria	No criteria	**50000**	80	2.2		**51300**	89.3	2.4		**49700**	84.7	2.3		**53200**	80	2.2	
Metals	Antimony	mg/kg	5	31	.3	5	0.14	0.8	0.14	U	0.15	0.89	0.15	U	0.14	0.85	0.14	U	0.14	0.8	0.14	U
Metals	Barium	mg/kg	85	No criteria	No criteria	No criteria	**183**	4	0.18		**172**	4.5	0.21		**169**	4.2	0.19		**182**	4	0.18	
Metals	Cadmium	mg/kg	4	37	.4	8	0.68	0.4	0.11		1	0.45	0.12		0.8	0.42	0.12		0.74	0.4	0.11	
Metals	Chromium	mg/kg	.4	210	2	38	**147**	1.6	0.22		**175**	1.8	0.25		**147**	1.7	0.24		**155**	1.6	0.22	
Metals	Cobalt	mg/kg	20	900	No criteria	No criteria	**65.3**	0.4	0.014		**62.7**	0.45	0.015		**62**	0.85	0.014		**65.5**	0.8	0.014	
Metals	Copper	mg/kg	50	3100	No criteria	No criteria	**133**	3.2	0.32		**156**	3.6	0.36		**131**	3.4	0.34		**129**	3.2	0.32	
Metals	Iron	mg/kg	200	23000	No criteria	No criteria	***74200***	40	2.6		***89200***	44.6	2.9		***73600***	42.4	2.7		***78100***	40	2.6	
Metals	Lead	mg/kg	16	400	No criteria	No criteria	3.9	1.6	0.063		5.7	1.8	0.071		4.2	1.7	0.067		4.5	1.6	0.063	
Metals	Magnesium	mg/kg	No criteria	No criteria	No criteria	No criteria	13200	80	1.4		11100	89.3	1.6		13000	84.7	1.5		13600	80	1.4	
Metals	Manganese	mg/kg	100	1800	No criteria	No criteria	***2300***	1.6	0.046		***2260***	1.8	0.051		***2090***	1.7	0.048		***2290***	1.6	0.046	
Metals	Mercury	mg/kg	0.1	23	No criteria	No criteria	0.023	0.029	0.0085	J	0.023	0.031	0.0091	J	0.021	0.032	0.0094	J	0.022	0.032	0.0093	J
Metals	Molybdenum	mg/kg	2	390	No criteria	No criteria	0.24	4	0.23	J	0.4	4.5	0.26	J	0.31	4.2	0.25		0.24	4	0.23	
Metals	Nickel	mg/kg	30	1600	7	130	**73.9**	0.8	0.07		**73.5**	0.89	0.079		**71.9**	0.85	0.075		**77.3**	0.8	0.07	
Metals	Strontium	mg/kg	32875	47000	No criteria	No criteria	78.4	1.6	0.074	J	50.4	1.8	0.082	J	86.3	1.7	0.078	J	89.3	1.6	0.074	J
Metals	Titanium	mg/kg	1000	100000	No criteria	No criteria	**4900**	3.2	0.48		**7490**	3.6	0.54		**4900**	3.4	0.51		**4750**	3.2	0.48	
Metals	Zinc	mg/kg	50	23000	620	12000	**73.7**	8	0.39		**95.8**	8.9	0.44		**75.4**	8.5	0.42		**78.2**	8	0.39	

[**Bold**] - Result exceeds Site Inspection Soil Ecological Screening Levels
[*Italicized*] - Result exceeds EPA Region 9 PRGs - Residential Soil
[Underline] - Result exceeds EPA Region 9 SSLs DAF=1
[Shaded] - Result exceeds EPA Region 9 SSLs DAF=20

bgs - below ground surface
ft - feet
PRG - Preliminary Remediation Goals
SSL - soil screening level
DAF - dilution attentuation factor
REG - regular sample
PQL - practical quantitation limit
MDL - method detection limit
mg/kg - milligram per kilogram
VQ - validation qualifier

HMX - octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
PETN - Pentaerythritol tetranitrate
RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine
Tetryl- methyl-2,4,6-trinitrophenylnitramine

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Table G-9j

Comparison of Moving Target Range No. 75 Soil Results to Site Inspection Screening Values
Camp Adair

Location							017A055				017A056				017A056			
Sample Number							6-Sep-06				6-Sep-06				6-Sep-06			
Sample Date							NWO-017-0041				NWO-017-0042				NWO-017-0043			
Sample Depth (bgs) (ft)							0.08 to 0.5				0.08 to 0.5				0.08 to 0.5			
Sample Purpose							REG				REG				FD			
Fraction	Parameter	Units	Site Inspection Soil Ecological Screening Levels	EPA Region 9 PRGs - Residential Soil	EPA Region 9 SSLs DAF=1	EPA Region 9 SSLs DAF=20	Result	PQL	MDL	VQ	Result	PQL	MDL	VQ	Result	PQL	MDL	VQ
Explosives	1,3,5-Trinitrobenzene	mg/kg	.376	1800	No criteria	No criteria	0.012	0.04	0.012	UJ	0.012	0.04	0.012	UJ	0.012	0.04	0.012	UJ
Explosives	1,3-Dinitrobenzene	mg/kg	.655	6.1	No criteria	No criteria	0.002	0.04	0.002	U	0.002	0.04	0.002	UJ	0.002	0.04	0.002	UJ
Explosives	2,4,6-Trinitrotoluene	mg/kg	6.4	16	No criteria	No criteria	0.008	0.04	0.008	U	0.008	0.04	0.008	UJ	0.008	0.04	0.008	UJ
Explosives	2,4-Dinitrotoluene	mg/kg	1.28	.72	.00004	.0008	0.014	0.04	0.014	U	0.014	0.04	0.014	UJ	0.014	0.04	0.014	UJ
Explosives	2,6-Dinitrotoluene	mg/kg	.0328	.72	.00004	.0008	0.007	0.04	0.007	U	0.007	0.04	0.007	UJ	0.007	0.04	0.007	UJ
Explosives	2-Amino-4,6-dinitrotoluene	mg/kg	2.1	12	No criteria	No criteria	0.01	0.04	0.01	U	0.01	0.04	0.01	UJ	0.01	0.04	0.01	UJ
Explosives	4-Amino-2,6-Dinitrotoluene	mg/kg	.73	12	No criteria	No criteria	0.006	0.04	0.006	U	0.006	0.04	0.006	UJ	0.006	0.04	0.006	UJ
Explosives	HMX	mg/kg	27	3100	No criteria	No criteria	0.012	0.08	0.012	U	0.012	0.08	0.012	UJ	0.012	0.08	0.012	UJ
Explosives	3-Nitrotoluene	mg/kg	2.4	730	No criteria	No criteria	0.022	0.08	0.022	U	0.022	0.08	0.022	UJ	0.022	0.08	0.022	UJ
Explosives	Nitrobenzene	mg/kg	8	20	.007	.1	**0.021**	0.04	0.006	J	0.006	0.04	0.006	UJ	**0.024**	0.04	0.006	J
Explosives	Nitroglycerine	mg/kg	71	35	No criteria	No criteria	0.04	4	0.04	U	0.04	4	0.04	U	0.04	4	0.04	U
Explosives	2-Nitrotoluene	mg/kg	2	.88	No criteria	No criteria	0.009	0.08	0.009	U	0.009	0.08	0.009	UJ	0.009	0.08	0.009	UJ
Explosives	PETN	mg/kg	8600	No criteria	No criteria	No criteria	0.042	0.2	0.042	U	0.041	0.2	0.041	UJ	0.042	0.2	0.042	U
Explosives	4-Nitrotoluene	mg/kg	4.4	12	No criteria	No criteria	0.036	0.08	0.036	U	0.036	0.08	0.036	UJ	0.036	0.08	0.036	UJ
Explosives	RDX	mg/kg	7.5	4.4	No criteria	No criteria	0.071	0.08	0.071	U	0.071	0.08	0.071	UJ	0.071	0.08	0.071	UJ
Explosives	Tetryl	mg/kg	.99	610	No criteria	No criteria	0.004	0.08	0.004	U	0.004	0.08	0.004	UJ	0.004	0.08	0.004	UJ
Metals	Aluminum	mg/kg	50	76000	No criteria	No criteria	**52700**	92.6	2.5		**30500**	89.3	2.4		**31000**	89.3	2.4	
Metals	Antimony	mg/kg	5	31	.3	5	0.16	0.93	0.16	U	0.23	0.89	0.15		0.25	0.89	0.15	
Metals	Barium	mg/kg	85	No criteria	No criteria	No criteria	**646**	4.6	0.21		**302**	4.5	0.21		**315**	4.5	0.21	
Metals	Cadmium	mg/kg	4	37	.4	8	0.79	0.46	0.13		0.35	0.45	0.12		0.44	0.45	0.12	
Metals	Chromium	mg/kg	.4	210	2	38	**57**	1.9	0.26		**55.8**	1.8	0.25		**57.4**	1.8	0.25	
Metals	Cobalt	mg/kg	20	900	No criteria	No criteria	**39.3**	0.93	0.016		**34**	0.89	0.015		**33.2**	0.89	0.015	
Metals	Copper	mg/kg	50	3100	No criteria	No criteria	**116**	1.9	0.19		39.3	1.8	0.18		39.5	1.8	0.18	
Metals	Iron	mg/kg	200	23000	No criteria	No criteria	***66600***	46.3	3		***42800***	44.6	2.9		***44100***	44.6	2.9	
Metals	Lead	mg/kg	16	400	No criteria	No criteria	9.7	1.9	0.073		15.4	1.8	0.071		**16.4**	1.8	0.071	
Metals	Magnesium	mg/kg	No criteria	No criteria	No criteria	No criteria	11400	92.6	1.7		4860	89.3	1.6		4990	89.3	1.6	
Metals	Manganese	mg/kg	100	1800	No criteria	No criteria	***2830***	1.9	0.053		**1570**	1.8	0.051		**1650**	1.8	0.051	
Metals	Mercury	mg/kg	0.1	23	No criteria	No criteria	0.025	0.031	0.0089	J	0.04	0.028	0.008		0.037	0.03	0.0086	
Metals	Molybdenum	mg/kg	2	390	No criteria	No criteria	0.32	4.6	0.27		0.62	4.5	0.26		0.63	4.5	0.26	
Metals	Nickel	mg/kg	30	1600	7	130	**50.4**	0.93	0.081		**31.7**	0.89	0.079		**32**	0.89	0.079	
Metals	Strontium	mg/kg	32875	47000	No criteria	No criteria	131	1.9	0.085	J	61.4	1.8	0.082	J	62.6	1.8	0.082	J
Metals	Titanium	mg/kg	1000	100000	No criteria	No criteria	**2910**	1.9	0.28		649	1.8	0.27		663	1.8	0.27	
Metals	Zinc	mg/kg	50	23000	620	12000	**80.2**	9.3	0.45		**58.5**	8.9	0.44		**62.3**	8.9	0.44	

[**Bold**] - Result exceeds Site Inspection Soil Ecological Screening Levels
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[Underline] - Result exceeds EPA Region 9 SSLs DAF=1
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HMX - octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
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Tetryl - methyl-2,4,6-trinitrophenylnitramine

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Table G-9k

Comparison of East Live Grenade Court Soil Results to Site Inspection Screening Values
Camp Adair

Location							**017A059**			
Sample Number							**22-Aug-06**			
Sample Date							**NWO-017-0044**			
Sample Depth (bgs) (ft)							**0 to 0.5**			
Sample Purpose							**REG**			
Fraction	**Parameter**	**Units**	**Site Inspection Soil Ecological Screening Levels**	**EPA Region 9 PRGs - Residential Soil**	**EPA Region 9 SSLs DAF=1**	**EPA Region 9 SSLs DAF=20**	**Result**	**PQL**	**MDL**	**VQ**
Explosives	1,3,5-Trinitrobenzene	mg/kg	.376	1800	No criteria	No criteria	0.012	0.04	0.012	U
Explosives	1,3-Dinitrobenzene	mg/kg	.655	6.1	No criteria	No criteria	0.002	0.04	0.002	U
Explosives	2,4,6-Trinitrotoluene	mg/kg	6.4	16	No criteria	No criteria	0.008	0.04	0.008	U
Explosives	2,4-Dinitrotoluene	mg/kg	1.28	.72	.00004	.0008	0.014	0.04	0.014	U
Explosives	2,6-Dinitrotoluene	mg/kg	.0328	.72	.00004	.0008	0.007	0.04	0.007	U
Explosives	2-Amino-4,6-dinitrotoluene	mg/kg	2.1	12	No criteria	No criteria	0.01	0.04	0.01	U
Explosives	4-Amino-2,6-Dinitrotoluene	mg/kg	.73	12	No criteria	No criteria	0.006	0.04	0.006	U
Explosives	HMX	mg/kg	27	3100	No criteria	No criteria	0.012	0.08	0.012	U
Explosives	3-Nitrotoluene	mg/kg	2.4	730	No criteria	No criteria	0.022	0.08	0.022	U
Explosives	Nitrobenzene	mg/kg	8	20	.007	.1	0.006	0.04	0.006	U
Explosives	Nitroglycerine	mg/kg	71	35	No criteria	No criteria	0.04	4	0.04	UJ
Explosives	2-Nitrotoluene	mg/kg	2	.88	No criteria	No criteria	0.009	0.08	0.009	U
Explosives	PETN	mg/kg	8600	No criteria	No criteria	No criteria	0.041	0.2	0.041	U
Explosives	4-Nitrotoluene	mg/kg	4.4	12	No criteria	No criteria	0.036	0.08	0.036	U
Explosives	RDX	mg/kg	7.5	4.4	No criteria	No criteria	0.071	0.08	0.071	U
Explosives	Tetryl	mg/kg	.99	610	No criteria	No criteria	0.004	0.08	0.004	U
Metals	Aluminum	mg/kg	50	76000	No criteria	No criteria	**21200**	75.2	2	
Metals	Antimony	mg/kg	5	31	.3	5	0.17	0.75	0.13	J
Metals	Barium	mg/kg	85	No criteria	No criteria	No criteria	**164**	3.8	0.17	
Metals	Cadmium	mg/kg	4	37	.4	8	0.43	0.38	0.11	
Metals	Chromium	mg/kg	.4	210	2	38	**30.2**	1.5	0.21	
Metals	Cobalt	mg/kg	20	900	No criteria	No criteria	17.2	0.38	0.013	
Metals	Copper	mg/kg	50	3100	No criteria	No criteria	18	1.5	0.15	
Metals	Iron	mg/kg	200	23000	No criteria	No criteria	***30200***	37.6	2.4	
Metals	Lead	mg/kg	16	400	No criteria	No criteria	14.7	1.5	0.059	
Metals	Magnesium	mg/kg	No criteria	No criteria	No criteria	No criteria	4100	75.2	1.4	
Metals	Manganese	mg/kg	100	1800	No criteria	No criteria	**924**	1.5	0.043	
Metals	Mercury	mg/kg	0.1	23	No criteria	No criteria	0.035	0.031	0.0091	
Metals	Molybdenum	mg/kg	2	390	No criteria	No criteria	0.46	3.8	0.22	J
Metals	Nickel	mg/kg	30	1600	7	130	17	0.75	0.066	
Metals	Strontium	mg/kg	32875	47000	No criteria	No criteria	30.4	1.5	0.069	
Metals	Titanium	mg/kg	1000	100000	No criteria	No criteria	**1770**	1.5	0.23	
Metals	Zinc	mg/kg	50	23000	620	12000	**67.4**	7.5	0.37	

[**Bold**] - Result exceeds Site Inspection Soil Ecological Screening Levels
[*Italicized*] - Result exceeds EPA Region 9 PRGs - Residential Soil
[Underline] - Result exceeds EPA Region 9 SSLs DAF=1
[Shaded] - Result exceeds EPA Region 9 SSLs DAF=20

bgs - below ground surface
ft - feet
PRG - Preliminary Remediation Goals
SSL - soil screening level
DAF - dilution attentuation factor
REG - regular sample
PQL - practical quantitation limit
MDL - method detection limit
mg/kg - milligram per kilogram
VQ - validation qualifier

HMX - octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
PETN - Pentaerythritol tetranitrate
RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine
Tetryl - methyl-2,4,6-trinitrophenylnitramine

Validation Qualifier Definitions
U - Not detected. The compound/analyte was analyzed for, but not detected above the associated reporting limit
J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed
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Table G-9l

Comparison of West Live Hand Grenade Court Soil Results to Site Inspection Screening Values
Camp Adair

Location							**017A061**			
Sample Number							**23-Aug-06**			
Sample Date							**NWO-017-0045**			
Sample Depth (bgs) (ft)							**0.17 to 0.5**			
Sample Purpose							**REG**			
Fraction	**Parameter**	**Units**	**Site Inspection Soil Ecological Screening Levels**	**EPA Region 9 PRGs - Residential Soil**	**EPA Region 9 SSLs DAF=1**	**EPA Region 9 SSLs DAF=20**	**Result**	**PQL**	**MDL**	**VQ**
Explosives	1,3,5-Trinitrobenzene	mg/kg	.376	1800	No criteria	No criteria	0.012	0.04	0.012	U
Explosives	1,3-Dinitrobenzene	mg/kg	.655	6.1	No criteria	No criteria	0.002	0.04	0.002	U
Explosives	2,4,6-Trinitrotoluene	mg/kg	6.4	16	No criteria	No criteria	0.008	0.04	0.008	U
Explosives	2,4-Dinitrotoluene	mg/kg	1.28	.72	.00004	.0008	0.014	0.04	0.014	U
Explosives	2,6-Dinitrotoluene	mg/kg	.0328	.72	.00004	.0008	0.007	0.04	0.007	U
Explosives	2-Amino-4,6-dinitrotoluene	mg/kg	2.1	12	No criteria	No criteria	0.01	0.04	0.01	U
Explosives	4-Amino-2,6-Dinitrotoluene	mg/kg	.73	12	No criteria	No criteria	0.006	0.04	0.006	U
Explosives	HMX	mg/kg	27	3100	No criteria	No criteria	0.012	0.08	0.012	U
Explosives	3-Nitrotoluene	mg/kg	2.4	730	No criteria	No criteria	0.022	0.08	0.022	U
Explosives	Nitrobenzene	mg/kg	8	20	.007	.1	0.006	0.04	0.006	U
Explosives	Nitroglycerine	mg/kg	71	35	No criteria	No criteria	0.04	4	0.04	UJ
Explosives	2-Nitrotoluene	mg/kg	2	.88	No criteria	No criteria	0.009	0.08	0.009	U
Explosives	PETN	mg/kg	8600	No criteria	No criteria	No criteria	0.042	0.2	0.042	U
Explosives	4-Nitrotoluene	mg/kg	4.4	12	No criteria	No criteria	0.036	0.08	0.036	U
Explosives	RDX	mg/kg	7.5	4.4	No criteria	No criteria	0.071	0.08	0.071	U
Explosives	Tetryl	mg/kg	.99	610	No criteria	No criteria	0.004	0.08	0.004	U
Metals	Aluminum	mg/kg	50	76000	No criteria	No criteria	**20600**	84	2.3	
Metals	Antimony	mg/kg	5	31	.3	5	0.15	0.84	0.14	J
Metals	Barium	mg/kg	85	No criteria	No criteria	No criteria	**161**	4.2	0.19	
Metals	Cadmium	mg/kg	4	37	.4	8	0.3	0.42	0.12	J
Metals	Chromium	mg/kg	.4	210	2	38	**26.8**	1.7	0.24	
Metals	Cobalt	mg/kg	20	900	No criteria	No criteria	14.6	0.42	0.014	
Metals	Copper	mg/kg	50	3100	No criteria	No criteria	14.9	1.7	0.17	
Metals	Iron	mg/kg	200	23000	No criteria	No criteria	***26600***	42	2.7	
Metals	Lead	mg/kg	16	400	No criteria	No criteria	13.7	1.7	0.066	
Metals	Magnesium	mg/kg	No criteria	No criteria	No criteria	No criteria	3990	84	1.5	
Metals	Manganese	mg/kg	100	1800	No criteria	No criteria	**758**	1.7	0.048	
Metals	Mercury	mg/kg	0.1	23	No criteria	No criteria	0.029	0.029	0.0083	U
Metals	Molybdenum	mg/kg	2	390	No criteria	No criteria	0.38	4.2	0.24	J
Metals	Nickel	mg/kg	30	1600	7	130	15.4	0.84	0.074	
Metals	Strontium	mg/kg	32875	47000	No criteria	No criteria	19.1	1.7	0.077	
Metals	Titanium	mg/kg	1000	100000	No criteria	No criteria	**1380**	1.7	0.25	
Metals	Zinc	mg/kg	50	23000	620	12000	**59.2**	8.4	0.41	

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[*Italicized*] - Result exceeds EPA Region 9 PRGs - Residential Soil
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[Shaded] - Result exceeds EPA Region 9 SSLs DAF=20

bgs - below ground surface
ft - feet
PRG - Preliminary Remediation Goals
SSL - soil screening level
DAF - dilution attentuation factor
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PQL - practical quantitation limit
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mg/kg - milligram per kilogram
VQ - validation qualifier

HMX - octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
PETN - Pentaerythritol tetranitrate
RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine
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Table G-9m

Comparison of Live Hand Grenade Court No. 129 Soil Results to Site Inspection Screening Values
Camp Adair

Location							**017A062**			
Sample Number							**22-Aug-06**			
Sample Date							**NWO-017-0046**			
Sample Depth (bgs) (ft)							**0.08 to 0.5**			
Sample Purpose							**REG**			
Fraction	**Parameter**	**Units**	**Site Inspection Soil Ecological Screening Levels**	**EPA Region 9 PRGs - Residential Soil**	**EPA Region 9 SSLs DAF=1**	**EPA Region 9 SSLs DAF=20**	**Result**	**PQL**	**MDL**	**VQ**
Explosives	1,3,5-Trinitrobenzene	mg/kg	.376	1800	No criteria	No criteria	0.012	0.04	0.012	U
Explosives	1,3-Dinitrobenzene	mg/kg	.655	6.1	No criteria	No criteria	0.002	0.04	0.002	U
Explosives	2,4,6-Trinitrotoluene	mg/kg	6.4	16	No criteria	No criteria	0.008	0.04	0.008	U
Explosives	2,4-Dinitrotoluene	mg/kg	1.28	.72	.00004	.0008	0.014	0.04	0.014	U
Explosives	2,6-Dinitrotoluene	mg/kg	.0328	.72	.00004	.0008	0.007	0.04	0.007	U
Explosives	2-Amino-4,6-dinitrotoluene	mg/kg	2.1	12	No criteria	No criteria	0.01	0.04	0.01	U
Explosives	4-Amino-2,6-Dinitrotoluene	mg/kg	.73	12	No criteria	No criteria	0.006	0.04	0.006	U
Explosives	HMX	mg/kg	27	3100	No criteria	No criteria	0.012	0.08	0.012	U
Explosives	3-Nitrotoluene	mg/kg	2.4	730	No criteria	No criteria	0.022	0.08	0.022	U
Explosives	Nitrobenzene	mg/kg	8	20	.007	.1	0.006	0.04	0.006	U
Explosives	Nitroglycerine	mg/kg	71	35	No criteria	No criteria	0.04	4	0.04	UJ
Explosives	2-Nitrotoluene	mg/kg	2	.88	No criteria	No criteria	0.009	0.08	0.009	U
Explosives	PETN	mg/kg	8600	No criteria	No criteria	No criteria	0.041	0.2	0.041	U
Explosives	4-Nitrotoluene	mg/kg	4.4	12	No criteria	No criteria	0.036	0.08	0.036	U
Explosives	RDX	mg/kg	7.5	4.4	No criteria	No criteria	0.071	0.08	0.071	U
Explosives	Tetryl	mg/kg	.99	610	No criteria	No criteria	0.004	0.08	0.004	U
Metals	Aluminum	mg/kg	50	76000	No criteria	No criteria	**25000**	84.7	2.3	
Metals	Antimony	mg/kg	5	31	.3	5	0.14	0.85	0.14	U
Metals	Barium	mg/kg	85	No criteria	No criteria	No criteria	**157**	4.2	0.19	
Metals	Cadmium	mg/kg	4	37	.4	8	0.27	0.42	0.12	J
Metals	Chromium	mg/kg	.4	210	2	38	**31.8**	1.7	0.24	
Metals	Cobalt	mg/kg	20	900	No criteria	No criteria	17.8	0.42	0.014	
Metals	Copper	mg/kg	50	3100	No criteria	No criteria	20.4	1.7	0.17	
Metals	Iron	mg/kg	200	23000	No criteria	No criteria	***32800***	42.4	2.7	
Metals	Lead	mg/kg	16	400	No criteria	No criteria	11.6	1.7	0.067	
Metals	Magnesium	mg/kg	No criteria	No criteria	No criteria	No criteria	4410	84.7	1.5	
Metals	Manganese	mg/kg	100	1800	No criteria	No criteria	**830**	1.7	0.048	
Metals	Mercury	mg/kg	0.1	23	No criteria	No criteria	0.038	0.03	0.0086	
Metals	Molybdenum	mg/kg	2	390	No criteria	No criteria	0.28	4.2	0.25	J
Metals	Nickel	mg/kg	30	1600	7	130	14.3	0.85	0.075	
Metals	Strontium	mg/kg	32875	47000	No criteria	No criteria	25.4	1.7	0.078	
Metals	Titanium	mg/kg	1000	100000	No criteria	No criteria	**1010**	1.7	0.25	
Metals	Zinc	mg/kg	50	23000	620	12000	**53**	8.5	0.42	

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HMX - octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
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Table G-9n

Comparison of Background Soil Results to Site Inspection Screening Values
Camp Adair

Location							017A064				017A065				017A066			
Sample Number							7-Sep-06				6-Aug-06				6-Sep-06			
Sample Date							NWO-017-5001				NWO-017-5002				NWO-017-5003			
Sample Depth (bgs) (ft)							0.08 to 0.5				0.08 to 0.5				0.08 to 0.5			
Sample Purpose							REG				REG				REG			
Fraction	Parameter	Units	Site Inspection Soil Ecological Screening Levels	EPA Region 9 PRGs - Residential Soil	EPA Region 9 SSLs DAF=1	EPA Region 9 SSLs DAF=20	Result	PQL	MDL	VQ	Result	PQL	MDL	VQ	Result	PQL	MDL	VQ
Metals	Aluminum	mg/kg	50	76000	No criteria	No criteria	**54000**	81.3	2.2	J	**29500**	94.3	2.5		**27900**	86.2	2.3	
Metals	Antimony	mg/kg	5	31	.3	5	0.14	0.81	0.14	UJ	0.21	0.94	0.16		0.22	0.86	0.15	
Metals	Arsenic	mg/kg	10	5400	82	1600	0.95	4.1	0.5	J	**13.6**	4.7	0.58		5	4.3	0.53	
Metals	Barium	mg/kg	85	No criteria	No criteria	No criteria	**127**	4.1	0.19	J	**290**	4.7	0.22		**235**	4.3	0.2	
Metals	Beryllium	mg/kg	10	No criteria	No criteria	No criteria	0.53	0.16	0.026		1	0.19	0.03		0.94	0.17	0.028	
Metals	Cadmium	mg/kg	4	37	.4	8	0.6	0.41	0.11		0.3	0.47	0.13		0.29	0.43	0.12	
Metals	Calcium	mg/kg	No criteria	No criteria	No criteria	No criteria	5770	813	4.6	J	2010	943	5.3		1940	862	4.8	
Metals	Chromium	mg/kg	.4	210	2	38	***243***	1.6	0.23	J	**35.1**	1.9	0.26		**37.3**	1.7	0.24	
Metals	Cobalt	mg/kg	20	900	No criteria	No criteria	**80.6**	0.41	0.014	J	**29.2**	0.94	0.016		**21.1**	0.86	0.015	
Metals	Copper	mg/kg	50	3100	No criteria	No criteria	**133**	3.3	0.33	J	35.1	1.9	0.19		30.5	1.7	0.17	
Metals	Iron	mg/kg	200	23000	No criteria	No criteria	***83100***	40.7	2.6	J	***42600***	47.2	3		***39700***	43.1	2.8	
Metals	Lead	mg/kg	16	400	No criteria	No criteria	3.5	1.6	0.064		**22.2**	1.9	0.075		15.6	1.7	0.068	
Metals	Magnesium	mg/kg	No criteria	No criteria	No criteria	No criteria	15300	81.3	1.5		4220	94.3	1.7		4400	86.2	1.6	
Metals	Manganese	mg/kg	100	1800	No criteria	No criteria	***2400***	1.6	0.046	J	***2010***	1.9	0.054		**1560**	1.7	0.049	
Metals	Mercury	mg/kg	0.1	23	No criteria	No criteria	0.067	0.033	0.0095		0.047	0.026	0.0075		0.029	0.029	0.0083	
Metals	Molybdenum	mg/kg	2	390	No criteria	No criteria	0.33	4.1	0.24	J	0.62	4.7	0.27		0.57	4.3	0.25	
Metals	Nickel	mg/kg	30	1600	7	130	**96.8**	0.81	0.072	J	20.2	0.94	0.083		21.6	0.86	0.076	
Metals	Potassium	mg/kg	No criteria	No criteria	No criteria	No criteria	572	813	1.6	J	2250	943	1.9		2610	862	1.7	
Metals	Selenium	mg/kg	1	No criteria	No criteria	No criteria	0.94	4.1	0.79	J	0.92	4.7	0.92	U	0.84	4.3	0.84	U
Metals	Silver	mg/kg	2	No criteria	No criteria	No criteria	0.093	0.24	0.015	J	0.06	0.28	0.018		0.053	0.26	0.016	
Metals	Sodium	mg/kg	No criteria	No criteria	No criteria	No criteria	411	813	7.6	J	69.9	943	8.9		80.6	862	8.1	
Metals	Strontium	mg/kg	32875	47000	No criteria	No criteria	36.6	1.6	0.075	J	23.8	1.9	0.087	J	21.8	1.7	0.079	J
Metals	Thallium	mg/kg	1	No criteria	No criteria	No criteria	0.17	1.6	0.14	U	0.32	1.9	0.16	U	0.28	1.7	0.15	U
Metals	Titanium	mg/kg	1000	100000	No criteria	No criteria	**5690**	3.3	0.49		**2290**	1.9	0.28		**2300**	1.7	0.26	
Metals	Vanadium	mg/kg	2	No criteria	No criteria	No criteria	**319**	8.1	2		**114**	9.4	2.4		**108**	8.6	2.2	
Metals	Zinc	mg/kg	50	23000	620	12000	**79.2**	8.1	0.4	J	**99.7**	9.4	0.46		**81.4**	8.6	0.42	

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Table G-9n

Comparison of Background Soil Results to Site Inspection Screening Values
Camp Adair

Location							017A067				017A068				017A069			
Sample Number							6-Sep-06				28-Aug-06				29-Aug-06			
Sample Date							NWO-017-5004				NWO-017-5005				NWO-017-5006			
Sample Depth (bgs) (ft)							0.08 to 0.5				0.08 to 0.5				0.08 to 0.5			
Sample Purpose							REG				REG				REG			
Fraction	Parameter	Units	Site Inspection Soil Ecological Screening Levels	EPA Region 9 PRGs - Residential Soil	EPA Region 9 SSLs DAF=1	EPA Region 9 SSLs DAF=20	Result	PQL	MDL	VQ	Result	PQL	MDL	VQ	Result	PQL	MDL	VQ
Metals	Aluminum	mg/kg	50	76000	No criteria	No criteria	**24300**	80.6	2.2		**27700**	80	2.2		**29900**	80	2.2	
Metals	Antimony	mg/kg	5	31	.3	5	0.19	0.81	0.14		0.14	0.8	0.14	U	0.22	0.8	0.14	J
Metals	Arsenic	mg/kg	10	5400	82	1600	9.8	4	0.49		5.3	4	0.49		**11.5**	4	0.49	
Metals	Barium	mg/kg	85	No criteria	No criteria	No criteria	**174**	4	0.19		**178**	4	0.18		**198**	4	0.18	
Metals	Beryllium	mg/kg	10	No criteria	No criteria	No criteria	0.89	0.16	0.026		1.1	0.16	0.026		1.1	0.16	0.026	
Metals	Cadmium	mg/kg	4	37	.4	8	0.3	0.4	0.11		0.33	0.4	0.11	J	0.16	0.4	0.11	J
Metals	Calcium	mg/kg	No criteria	No criteria	No criteria	No criteria	3420	806	4.5		1780	800	4.5		2300	800	4.5	
Metals	Chromium	mg/kg	.4	210	2	38	**26.2**	1.6	0.23		**28.4**	1.6	0.22		**43**	1.6	0.22	
Metals	Cobalt	mg/kg	20	900	No criteria	No criteria	15.9	0.81	0.014		13.5	0.8	0.014		19.4	0.8	0.014	
Metals	Copper	mg/kg	50	3100	No criteria	No criteria	15.4	1.6	0.16		19.3	1.6	0.16		36.8	1.6	0.16	
Metals	Iron	mg/kg	200	23000	No criteria	No criteria	***31500***	40.3	2.6		***30800***	40	2.6		***43200***	40	2.6	
Metals	Lead	mg/kg	16	400	No criteria	No criteria	16	1.6	0.064		15.4	1.6	0.063		**16.3**	1.6	0.063	
Metals	Magnesium	mg/kg	No criteria	No criteria	No criteria	No criteria	4170	80.6	1.5		4380	80	1.4		4430	80	1.4	
Metals	Manganese	mg/kg	100	1800	No criteria	No criteria	**935**	1.6	0.046		**737**	1.6	0.046		**1050**	1.6	0.046	
Metals	Mercury	mg/kg	0.1	23	No criteria	No criteria	0.033	0.032	0.0093		0.035	0.029	0.0085	U	0.034	0.026	0.0077	U
Metals	Molybdenum	mg/kg	2	390	No criteria	No criteria	0.58	4	0.23		0.42	4	0.23	J	0.71	4	0.23	J
Metals	Nickel	mg/kg	30	1600	7	130	15.7	0.81	0.071		17.3	0.8	0.07		24.6	0.8	0.07	
Metals	Potassium	mg/kg	No criteria	No criteria	No criteria	No criteria	2420	806	1.6		1820	800	1.6		2460	800	1.6	
Metals	Selenium	mg/kg	1	No criteria	No criteria	No criteria	0.85	4	0.78		0.78	4	0.78	U	0.92	4	0.78	J
Metals	Silver	mg/kg	2	No criteria	No criteria	No criteria	0.04	0.24	0.015		0.034	0.24	0.015	J	0.031	0.24	0.015	J
Metals	Sodium	mg/kg	No criteria	No criteria	No criteria	No criteria	80.4	806	7.6		57.2	800	7.5	J	43.3	800	7.5	J
Metals	Strontium	mg/kg	32875	47000	No criteria	No criteria	21.3	1.6	0.074	J	12.8	1.6	0.074	J	22.5	1.6	0.074	J
Metals	Thallium	mg/kg	1	No criteria	No criteria	No criteria	0.25	1.6	0.14	U	0.23	1.6	0.14	J	0.34	1.6	0.14	J
Metals	Titanium	mg/kg	1000	100000	No criteria	No criteria	**1990**	1.6	0.24		**1130**	1.6	0.24		298	1.6	0.24	
Metals	Vanadium	mg/kg	2	No criteria	No criteria	No criteria	**89.8**	8.1	2		**73.8**	8	2		**91.8**	8	2	
Metals	Zinc	mg/kg	50	23000	620	12000	**70.7**	8.1	0.4		**59.9**	8	0.39		**77.7**	8	0.39	

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Table G-9n

Comparison of Background Soil Results to Site Inspection Screening Values
Camp Adair

Location							017A070				017A071				017A072			
Sample Number							28-Aug-06				25-Aug-06				25-Aug-06			
Sample Date							NWO-017-5007				NWO-017-5008				NWO-017-5009			
Sample Depth (bgs) (ft)							0.08 to 0.5				0.08 to 0.5				0.08 to 0.5			
Sample Purpose							REG				REG				REG			
Fraction	Parameter	Units	Site Inspection Soil Ecological Screening Levels	EPA Region 9 PRGs - Residential Soil	EPA Region 9 SSLs DAF=1	EPA Region 9 SSLs DAF=20	Result	PQL	MDL	VQ	Result	PQL	MDL	VQ	Result	PQL	MDL	VQ
Metals	Aluminum	mg/kg	50	76000	No criteria	No criteria	**38200**	82.6	2.2		**18800**	80.6	2.2		**19400**	80.6	2.2	
Metals	Antimony	mg/kg	5	31	.3	5	0.14	0.83	0.14	U	0.14	0.81	0.14	U	0.14	0.81	0.14	U
Metals	Arsenic	mg/kg	10	5400	82	1600	7.6	4.1	0.5		3.3	4	0.49	J	7.2	4	0.49	
Metals	Barium	mg/kg	85	No criteria	No criteria	No criteria	**246**	4.1	0.19		**154**	4	0.19		**99.1**	4	0.19	
Metals	Beryllium	mg/kg	10	No criteria	No criteria	No criteria	1.3	0.17	0.026		0.43	0.16	0.026		0.71	0.16	0.026	
Metals	Cadmium	mg/kg	4	37	.4	8	0.41	0.41	0.12		0.13	0.4	0.11	J	0.21	0.4	0.11	J
Metals	Calcium	mg/kg	No criteria	No criteria	No criteria	No criteria	3130	826	4.6		1940	806	4.5		1740	806	4.5	
Metals	Chromium	mg/kg	.4	210	2	38	**38.4**	1.7	0.23		**18.8**	1.6	0.23		**28.7**	1.6	0.23	
Metals	Cobalt	mg/kg	20	900	No criteria	No criteria	16.1	0.83	0.014		9.3	0.4	0.014		15.7	0.4	0.014	
Metals	Copper	mg/kg	50	3100	No criteria	No criteria	37.8	1.7	0.17		12.3	1.6	0.16		20.8	1.6	0.16	
Metals	Iron	mg/kg	200	23000	No criteria	No criteria	***52400***	41.3	2.6		**19300**	40.3	2.6		***35000***	40.3	2.6	
Metals	Lead	mg/kg	16	400	No criteria	No criteria	13.5	1.7	0.065		8.8	1.6	0.064		7.5	1.6	0.064	
Metals	Magnesium	mg/kg	No criteria	No criteria	No criteria	No criteria	6830	82.6	1.5		1220	80.6	1.5		2250	80.6	1.5	
Metals	Manganese	mg/kg	100	1800	No criteria	No criteria	**1050**	1.7	0.047		**998**	1.6	0.046		**668**	1.6	0.046	
Metals	Mercury	mg/kg	0.1	23	No criteria	No criteria	0.052	0.031	0.0089	U	0.036	0.028	0.008		0.026	0.03	0.0087	J
Metals	Molybdenum	mg/kg	2	390	No criteria	No criteria	0.87	4.1	0.24	J	0.3	4	0.23	J	0.37	4	0.23	J
Metals	Nickel	mg/kg	30	1600	7	130	27.6	0.83	0.073		7.4	0.81	0.071		10.7	0.81	0.071	
Metals	Potassium	mg/kg	No criteria	No criteria	No criteria	No criteria	2130	826	1.7		1110	806	1.6		1600	806	1.6	
Metals	Selenium	mg/kg	1	No criteria	No criteria	No criteria	**1.1**	4.1	0.8	J	0.78	4	0.78	U	0.78	4	0.78	U
Metals	Silver	mg/kg	2	No criteria	No criteria	No criteria	0.13	0.25	0.016	J	0.035	0.24	0.015	J	0.031	0.24	0.015	J
Metals	Sodium	mg/kg	No criteria	No criteria	No criteria	No criteria	102	826	7.8	J	29.7	806	7.6	J	35.8	806	7.6	J
Metals	Strontium	mg/kg	32875	47000	No criteria	No criteria	30.1	1.7	0.076	J	14.5	1.6	0.074	J	20.2	1.6	0.074	J
Metals	Thallium	mg/kg	1	No criteria	No criteria	No criteria	0.25	1.7	0.14	J	0.27	1.6	0.14	J	0.15	1.6	0.14	J
Metals	Titanium	mg/kg	1000	100000	No criteria	No criteria	380	1.7	0.25		381	1.6	0.24		292	1.6	0.24	
Metals	Vanadium	mg/kg	2	No criteria	No criteria	No criteria	**89.6**	8.3	2.1		**45.3**	8.1	2		**55.6**	8.1	2	
Metals	Zinc	mg/kg	50	23000	620	12000	**104**	8.3	0.4		31.9	8.1	0.4		39.8	8.1	0.4	

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Table G-9n

Comparison of Background Soil Results to Site Inspection Screening Values
Camp Adair

Location							017A073				017A073			
Sample Number							25-Aug-06				25-Aug-06			
Sample Date							NWO-017-5010				NWO-017-5011			
Sample Depth (bgs) (ft)							0.08 to 0.5				0.08 to 0.5			
Sample Purpose							REG				FD			
Fraction	Parameter	Units	Site Inspection Soil Ecological Screening Levels	EPA Region 9 PRGs - Residential Soil	EPA Region 9 SSLs DAF=1	EPA Region 9 SSLs DAF=20	Result	PQL	MDL	VQ	Result	PQL	MDL	VQ
Metals	Aluminum	mg/kg	50	76000	No criteria	No criteria	**19700**	79.4	2.1		**20400**	75.8	2	
Metals	Antimony	mg/kg	5	31	.3	5	0.14	0.79	0.13	J	0.16	0.76	0.13	J
Metals	Arsenic	mg/kg	10	5400	82	1600	5.8	4	0.48		5.9	3.8	0.46	
Metals	Barium	mg/kg	85	No criteria	No criteria	No criteria	**117**	4	0.18		**121**	3.8	0.17	
Metals	Beryllium	mg/kg	10	No criteria	No criteria	No criteria	0.67	0.16	0.025		0.68	0.15	0.024	
Metals	Cadmium	mg/kg	4	37	.4	8	0.2	0.4	0.11	J	0.18	0.38	0.11	J
Metals	Calcium	mg/kg	No criteria	No criteria	No criteria	No criteria	1350	794	4.4		1360	758	4.2	
Metals	Chromium	mg/kg	.4	210	2	38	**30.8**	1.6	0.22		**26.8**	1.5	0.21	
Metals	Cobalt	mg/kg	20	900	No criteria	No criteria	11.8	0.4	0.013		12.1	0.38	0.013	
Metals	Copper	mg/kg	50	3100	No criteria	No criteria	15.2	1.6	0.16		15.4	1.5	0.15	
Metals	Iron	mg/kg	200	23000	No criteria	No criteria	***26600***	39.7	2.5		***26700***	37.9	2.4	
Metals	Lead	mg/kg	16	400	No criteria	No criteria	**17.2**	1.6	0.063		**17.6**	1.5	0.06	
Metals	Magnesium	mg/kg	No criteria	No criteria	No criteria	No criteria	2250	79.4	1.4		2370	75.8	1.4	
Metals	Manganese	mg/kg	100	1800	No criteria	No criteria	**623**	1.6	0.045		**643**	1.5	0.043	
Metals	Mercury	mg/kg	0.1	23	No criteria	No criteria	0.041	0.03	0.0088		0.031	0.029	0.0083	
Metals	Molybdenum	mg/kg	2	390	No criteria	No criteria	0.4	4	0.23	J	0.42	3.8	0.22	J
Metals	Nickel	mg/kg	30	1600	7	130	10.9	0.79	0.07		11.5	0.76	0.067	
Metals	Potassium	mg/kg	No criteria	No criteria	No criteria	No criteria	1150	794	1.6		1190	758	1.5	
Metals	Selenium	mg/kg	1	No criteria	No criteria	No criteria	0.77	4	0.77	U	0.73	3.8	0.73	U
Metals	Silver	mg/kg	2	No criteria	No criteria	No criteria	0.026	0.24	0.015	J	0.029	0.23	0.014	J
Metals	Sodium	mg/kg	No criteria	No criteria	No criteria	No criteria	35	794	7.5	J	36.7	758	7.1	J
Metals	Strontium	mg/kg	32875	47000	No criteria	No criteria	12.3	1.6	0.073	J	12.4	1.5	0.07	J
Metals	Thallium	mg/kg	1	No criteria	No criteria	No criteria	0.19	1.6	0.13	J	0.17	1.5	0.13	J
Metals	Titanium	mg/kg	1000	100000	No criteria	No criteria	645	1.6	0.24		658	1.5	0.23	
Metals	Vanadium	mg/kg	2	No criteria	No criteria	No criteria	**60.2**	7.9	2		**63.4**	7.6	1.9	
Metals	Zinc	mg/kg	50	23000	620	12000	40.2	7.9	0.39		40.8	7.6	0.37	

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ATTACHMENT 1

Summary of Analytical Results

Attachment 1

Summary of Analytical Results
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A001	NWO-017-0001	24-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	45.5	1.6	0.062	mg/kg	D						N	10
017A002	NWO-017-0002	31-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	13.4	3.2	0.13	mg/kg	D						N	20
017A003	NWO-017-0003	31-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	73.2	1.7	0.067	mg/kg	D						N	10
017A004	NWO-017-0004	31-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	4.5	1.8	0.07	mg/kg	D						N	10
017A005	NWO-017-0005	31-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	16.2	1.7	0.068	mg/kg	D						N	10
017A006	NWO-017-0006	31-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	10.4	1.7	0.065	mg/kg	D						N	10
017A006	NWO-017-0007	31-Aug-06	FD	0.08	0.5	SS	Metals	7439-92-1	Lead	10.3	1.7	0.066	mg/kg	D						N	10
017A007	NWO-017-0008	24-Aug-06	REG	0	0.5	SS	Metals	7439-92-1	Lead	6.4	3.1	0.12	mg/kg	D						N	20
017A008	NWO-017-0009	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	17	1.8	0.071	mg/kg	D						N	10
017A009	NWO-017-1001	31-Aug-06	REG	1	3	SD	Metals	7439-92-1	Lead	7	1.8	0.069	mg/kg	D						N	10
017A010	NWO-017-3001	20-Sep-06	REG	0	0	GW	Metals	7439-92-1	Lead	0.39	2	0.18	ug/L	J	J	15				N	1
017A010	NWO-017-3001	20-Sep-06	REG	0	0	GW	Perchlorate	14797-73-0	Perchlorate	0.0612	0.2	0.0612	ug/L	U	U					Y	1
017A011	NWO-017-0010	31-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	11.1	1.7	0.065	mg/kg	D						N	10
017A012	NWO-017-0011	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	19.5	1.7	0.068	mg/kg	D						N	10
017A013	NWO-017-0012	31-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	21.4	1.7	0.067	mg/kg	D						N	10
017A014	NWO-017-0013	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	10.7	1.8	0.07	mg/kg	D						N	10
017A015	NWO-017-3002	14-Sep-06	REG	0	0	GW	Metals	7439-92-1	Lead	0.51	2	0.18	ug/L	J	J	15				N	1
017A015	NWO-017-3002	14-Sep-06	REG	0	0	GW	Perchlorate	14797-73-0	Perchlorate	0.0612	0.2	0.0612	ug/L	U	UJ	19	05B			Y	1
017A016	NWO-017-0015R	11-Sep-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	11.8	1.7	0.066	mg/kg	D						N	10
017A017	NWO-017-0016R	11-Sep-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	8.6	1.7	0.066	mg/kg	D						N	10
017A018	NWO-017-0017R	11-Sep-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	29.1	1.7	0.068	mg/kg	D						N	10
017A019	NWO-017-0018FDR	11-Sep-06	FD	0.17	0.5	SS	Metals	7439-92-1	Lead	13.8	1.8	0.069	mg/kg	D						N	10
017A019	NWO-017-0018R	11-Sep-06	REG	0.07	0.5	SS	Metals	7439-92-1	Lead	13.5	1.8	0.071	mg/kg	D						N	10
017A020	NWO-017-3003	12-Sep-06	REG	0	0	GW	Metals	7439-92-1	Lead	0.46	2	0.18	ug/L	J	J	15				N	1
017A020	NWO-017-3004	12-Sep-06	FD	0	0	GW	Metals	7439-92-1	Lead	0.36	2	0.18	ug/L	J	J	15				N	1
017A021	NWO-017-0019	22-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	20.1	1.6	0.063	mg/kg	D						N	10
017A021	NWO-017-0019	22-Aug-06	REG	0.08	0.5	SS	PAHs	91-57-6	2-Methylnaphthalene	0.0022	0.0073	0.0022	mg/kg	U	U					N	1
017A021	NWO-017-0019	22-Aug-06	REG	0.08	0.5	SS	PAHs	83-32-9	Acenaphthene	0.0055	0.0073	0.0011	mg/kg	J	J	15				N	1
017A021	NWO-017-0019	22-Aug-06	REG	0.08	0.5	SS	PAHs	208-96-8	Acenaphthylene	0.0011	0.0073	0.0011	mg/kg	U	U					N	1
017A021	NWO-017-0019	22-Aug-06	REG	0.08	0.5	SS	PAHs	120-12-7	Anthracene	0.0011	0.0073	0.0011	mg/kg	U	U					N	1
017A021	NWO-017-0019	22-Aug-06	REG	0.08	0.5	SS	PAHs	56-55-3	Benzo(a)anthracene	0.036	0.0073	0.0015	mg/kg							N	1
017A021	NWO-017-0019	22-Aug-06	REG	0.08	0.5	SS	PAHs	50-32-8	Benzo(a)pyrene	0.06	0.0073	0.00073	mg/kg							N	1
017A021	NWO-017-0019	22-Aug-06	REG	0.08	0.5	SS	PAHs	205-99-2	Benzo(b)fluoranthene	0.063	0.0073	0.00036	mg/kg							N	1
017A021	NWO-017-0019	22-Aug-06	REG	0.08	0.5	SS	PAHs	191-24-2	Benzo(ghi)perylene	0.051	0.0073	0.0011	mg/kg							N	1
017A021	NWO-017-0019	22-Aug-06	REG	0.08	0.5	SS	PAHs	207-08-9	Benzo(k)fluoranthene	0.017	0.0073	0.0011	mg/kg							N	1
017A021	NWO-017-0019	22-Aug-06	REG	0.08	0.5	SS	PAHs	218-01-9	Chrysene	0.042	0.0073	0.00073	mg/kg							N	1
017A021	NWO-017-0019	22-Aug-06	REG	0.08	0.5	SS	PAHs	53-70-3	Dibenzo(a,h)anthracene	0.00036	0.0073	0.00036	mg/kg	U	U					N	1
017A021	NWO-017-0019	22-Aug-06	REG	0.08	0.5	SS	PAHs	206-44-0	Fluoranthene	0.038	0.0073	0.0018	mg/kg							N	1
017A021	NWO-017-0019	22-Aug-06	REG	0.08	0.5	SS	PAHs	86-73-7	Fluorene	0.0011	0.0073	0.0011	mg/kg	U	U					N	1
017A021	NWO-017-0019	22-Aug-06	REG	0.08	0.5	SS	PAHs	193-39-5	Indeno(1,2,3-cd)pyrene	0.044	0.0073	0.0011	mg/kg							N	1
017A021	NWO-017-0019	22-Aug-06	REG	0.08	0.5	SS	PAHs	91-20-3	Naphthalene	0.0011	0.0073	0.0011	mg/kg	U	U					N	1
017A021	NWO-017-0019	22-Aug-06	REG	0.08	0.5	SS	PAHs	85-01-8	Phenanthrene	0.015	0.0073	0.0014	mg/kg							N	1
017A021	NWO-017-0019	22-Aug-06	REG	0.08	0.5	SS	PAHs	129-00-0	Pyrene	0.044	0.0073	0.0011	mg/kg							N	1
017A022	NWO-017-0020	22-Aug-06	REG	0	0.5	SS	Metals	7439-92-1	Lead	58.4	1.6	0.063	mg/kg	D						N	10
017A022	NWO-017-0020	22-Aug-06	REG	0	0.5	SS	PAHs	91-57-6	2-Methylnaphthalene	0.0021	0.0071	0.0021	mg/kg	U	U					N	1
017A022	NWO-017-0020	22-Aug-06	REG	0	0.5	SS	PAHs	83-32-9	Acenaphthene	0.0011	0.0071	0.0011	mg/kg	U	U					N	1
017A022	NWO-017-0020	22-Aug-06	REG	0	0.5	SS	PAHs	208-96-8	Acenaphthylene	0.0011	0.0071	0.0011	mg/kg	U	U					N	1
017A022	NWO-017-0020	22-Aug-06	REG	0	0.5	SS	PAHs	120-12-7	Anthracene	0.0011	0.0071	0.0011	mg/kg	U	U					N	1
017A022	NWO-017-0020	22-Aug-06	REG	0	0.5	SS	PAHs	56-55-3	Benzo(a)anthracene	0.0014	0.0071	0.0014	mg/kg	U	U					N	1
017A022	NWO-017-0020	22-Aug-06	REG	0	0.5	SS	PAHs	50-32-8	Benzo(a)pyrene	0.00071	0.0071	0.00071	mg/kg	U	U					N	1
017A022	NWO-017-0020	22-Aug-06	REG	0	0.5	SS	PAHs	205-99-2	Benzo(b)fluoranthene	0.00036	0.0071	0.00036	mg/kg	U	U					N	1
017A022	NWO-017-0020	22-Aug-06	REG	0	0.5	SS	PAHs	191-24-2	Benzo(ghi)perylene	0.0011	0.0071	0.0011	mg/kg	U	U					N	1
017A022	NWO-017-0020	22-Aug-06	REG	0	0.5	SS	PAHs	207-08-9	Benzo(k)fluoranthene	0.0011	0.0071	0.0011	mg/kg	U	U					N	1
017A022	NWO-017-0020	22-Aug-06	REG	0	0.5	SS	PAHs	218-01-9	Chrysene	0.00071	0.0071	0.00071	mg/kg	U	U					N	1
017A022	NWO-017-0020	22-Aug-06	REG	0	0.5	SS	PAHs	53-70-3	Dibenzo(a,h)anthracene	0.00036	0.0071	0.00036	mg/kg	U	U					N	1
017A022	NWO-017-0020	22-Aug-06	REG	0	0.5	SS	PAHs	206-44-0	Fluoranthene	0.0082	0.0071	0.0018	mg/kg							N	1
017A022	NWO-017-0020	22-Aug-06	REG	0	0.5	SS	PAHs	86-73-7	Fluorene	0.0011	0.0071	0.0011	mg/kg	U	U					N	1
017A022	NWO-017-0020	22-Aug-06	REG	0	0.5	SS	PAHs	193-39-5	Indeno(1,2,3-cd)pyrene	0.0011	0.0071	0.0011	mg/kg	U	U					N	1
017A022	NWO-017-0020	22-Aug-06	REG	0	0.5	SS	PAHs	91-20-3	Naphthalene	0.0011	0.0071	0.0011	mg/kg	U	U					N	1
017A022	NWO-017-0020	22-Aug-06	REG	0	0.5	SS	PAHs	85-01-8	Phenanthrene	0.005	0.0071	0.0014	mg/kg	J	J	15				N	1
017A022	NWO-017-0020	22-Aug-06	REG	0	0.5	SS	PAHs	129-00-0	Pyrene	0.0068	0.0071	0.0011	mg/kg	J	J	15				N	1

200-1e

Attachment 1

Summary of Analytical Results
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A023	NWO-017-0021	22-Aug-06	REG	0	0.5	SS	Metals	7439-92-1	Lead	41.1	1.6	0.063	mg/kg	D						N	10
017A023	NWO-017-0021	22-Aug-06	REG	0	0.5	SS	PAHs	91-57-6	2-Methylnaphthalene	0.0022	0.0073	0.0022	mg/kg	U	U					N	1
017A023	NWO-017-0021	22-Aug-06	REG	0	0.5	SS	PAHs	83-32-9	Acenaphthene	0.0011	0.0073	0.0011	mg/kg	U	U					N	1
017A023	NWO-017-0021	22-Aug-06	REG	0	0.5	SS	PAHs	208-96-8	Acenaphthylene	0.0011	0.0073	0.0011	mg/kg	U	U					N	1
017A023	NWO-017-0021	22-Aug-06	REG	0	0.5	SS	PAHs	120-12-7	Anthracene	0.0011	0.0073	0.0011	mg/kg	U	U					N	1
017A023	NWO-017-0021	22-Aug-06	REG	0	0.5	SS	PAHs	56-55-3	Benzo(a)anthracene	0.0015	0.0073	0.0015	mg/kg	U	U					N	1
017A023	NWO-017-0021	22-Aug-06	REG	0	0.5	SS	PAHs	50-32-8	Benzo(a)pyrene	0.00073	0.0073	0.00073	mg/kg	U	U					N	1
017A023	NWO-017-0021	22-Aug-06	REG	0	0.5	SS	PAHs	205-99-2	Benzo(b)fluoranthene	0.00036	0.0073	0.00036	mg/kg	U	U					N	1
017A023	NWO-017-0021	22-Aug-06	REG	0	0.5	SS	PAHs	191-24-2	Benzo(ghi)perylene	0.0011	0.0073	0.0011	mg/kg	U	U					N	1
017A023	NWO-017-0021	22-Aug-06	REG	0	0.5	SS	PAHs	207-08-9	Benzo(k)fluoranthene	0.0011	0.0073	0.0011	mg/kg	U	U					N	1
017A023	NWO-017-0021	22-Aug-06	REG	0	0.5	SS	PAHs	218-01-9	Chrysene	0.00073	0.0073	0.00073	mg/kg	U	U					N	1
017A023	NWO-017-0021	22-Aug-06	REG	0	0.5	SS	PAHs	53-70-3	Dibenzo(a,h)anthracene	0.00036	0.0073	0.00036	mg/kg	U	U					N	1
017A023	NWO-017-0021	22-Aug-06	REG	0	0.5	SS	PAHs	206-44-0	Fluoranthene	0.0018	0.0073	0.0018	mg/kg	U	U					N	1
017A023	NWO-017-0021	22-Aug-06	REG	0	0.5	SS	PAHs	86-73-7	Fluorene	0.0011	0.0073	0.0011	mg/kg	U	U					N	1
017A023	NWO-017-0021	22-Aug-06	REG	0	0.5	SS	PAHs	193-39-5	Indeno(1,2,3-cd)pyrene	0.0011	0.0073	0.0011	mg/kg	U	U					N	1
017A023	NWO-017-0021	22-Aug-06	REG	0	0.5	SS	PAHs	91-20-3	Naphthalene	0.0011	0.0073	0.0011	mg/kg	U	U					N	1
017A023	NWO-017-0021	22-Aug-06	REG	0	0.5	SS	PAHs	85-01-8	Phenanthrene	0.0015	0.0073	0.0015	mg/kg	U	U					N	1
017A023	NWO-017-0021	22-Aug-06	REG	0	0.5	SS	PAHs	129-00-0	Pyrene	0.0011	0.0073	0.0011	mg/kg	U	U					N	1
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.012	0.04	0.012	mg/kg	U	U					N	1
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Explosives	99-65-0	1,3-Dinitrobenzene	0.002	0.04	0.002	mg/kg	U	U					N	1
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.008	0.04	0.008	mg/kg	U	U					N	1
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Explosives	121-14-2	2,4-Dinitrotoluene	0.014	0.04	0.014	mg/kg	U	U					N	1
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Explosives	606-20-2	2,6-Dinitrotoluene	0.007	0.04	0.007	mg/kg	U	U					N	1
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.01	0.04	0.01	mg/kg	U	U					N	1
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.006	0.04	0.006	mg/kg	U	UJ	08A				N	1
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Explosives	2691-41-0	HMX	0.012	0.08	0.012	mg/kg	U	U					N	1
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Explosives	99-08-1	3-Nitrotoluene	0.022	0.08	0.022	mg/kg	U	U					N	1
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Explosives	98-95-3	Nitrobenzene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Explosives	55-63-0	Nitroglycerine	0.04	4	0.04	mg/kg	U	UJ	11A				N	1
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Explosives	88-72-2	2-Nitrotoluene	0.009	0.08	0.009	mg/kg	U	U					N	1
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Explosives	78-11-5	PETN	0.042	0.2	0.042	mg/kg	U	U					N	1
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Explosives	99-99-0	4-Nitrotoluene	0.036	0.08	0.036	mg/kg	U	U					N	1
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Explosives	121-82-4	RDX	0.071	0.08	0.071	mg/kg	U	U					N	1
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Explosives	479-45-8	Tetryl	0.004	0.08	0.004	mg/kg	U	U					N	1
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Metals	7429-90-5	Aluminum	22800	82	2.2	mg/kg	D						N	10
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-36-0	Antimony	0.14	0.82	0.14	mg/kg	UND	U					N	10
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-39-3	Barium	146	4.1	0.19	mg/kg	NDB						N	10
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-43-9	Cadmium	0.22	0.41	0.11	mg/kg	JD	J	15				N	10
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-47-3	Chromium	29.2	1.6	0.23	mg/kg	EDB						N	10
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-48-4	Cobalt	24.1	0.41	0.014	mg/kg	DB						N	10
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-50-8	Copper	28.8	1.6	0.16	mg/kg	D						N	10
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Metals	7439-89-6	Iron	31900	41	2.6	mg/kg	D						N	10
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Metals	7439-92-1	Lead	13.6	1.6	0.065	mg/kg	D						N	10
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Metals	7439-95-4	Magnesium	3760	82	1.5	mg/kg	D						N	10
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Metals	7439-96-5	Manganese	806	1.6	0.047	mg/kg	D						N	10
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Metals	7439-97-6	Mercury	0.089	0.03	0.0088	mg/kg							N	1
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Metals	7439-98-7	Molybdenum	0.6	4.1	0.24	mg/kg	JD	J	15				N	10
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-02-0	Nickel	13.8	0.82	0.072	mg/kg	D						N	10
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-24-6	Strontium	41.4	1.6	0.075	mg/kg	D						N	10
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-32-6	Titanium	539	1.6	0.25	mg/kg	D						N	10
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-66-6	Zinc	52.1	8.2	0.4	mg/kg	EDB						N	10
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.012	0.04	0.012	mg/kg	U	U					N	1
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Explosives	99-65-0	1,3-Dinitrobenzene	0.002	0.04	0.002	mg/kg	U	U					N	1
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.008	0.04	0.008	mg/kg	U	U					N	1
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Explosives	121-14-2	2,4-Dinitrotoluene	0.014	0.04	0.014	mg/kg	U	U					N	1
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Explosives	606-20-2	2,6-Dinitrotoluene	0.007	0.04	0.007	mg/kg	U	U					N	1
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.01	0.04	0.01	mg/kg	U	U					N	1
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Explosives	2691-41-0	HMX	0.012	0.08	0.012	mg/kg	U	U					N	1
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Explosives	99-08-1	3-Nitrotoluene	0.022	0.08	0.022	mg/kg	U	U					N	1
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Explosives	98-95-3	Nitrobenzene	0.006	0.04	0.006	mg/kg	U	U					N	1

200-1e

Attachment 1

Summary of Analytical Results
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Explosives	55-63-0	Nitroglycerine	0.04	4	0.04	mg/kg	U	UJ	11A				N	1
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Explosives	88-72-2	2-Nitrotoluene	0.009	0.08	0.009	mg/kg	U	U					N	1
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Explosives	78-11-5	PETN	0.041	0.2	0.041	mg/kg	U	U					N	1
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Explosives	99-99-0	4-Nitrotoluene	0.036	0.08	0.036	mg/kg	U	U					N	1
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Explosives	121-82-4	RDX	0.071	0.08	0.071	mg/kg	U	U					N	1
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Explosives	479-45-8	Tetryl	0.004	0.08	0.004	mg/kg	U	U					N	1
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	15200	73	2	mg/kg	D						N	10
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.12	0.73	0.12	mg/kg	UND	U					N	10
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	96.1	3.6	0.17	mg/kg	NDB						N	10
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.13	0.36	0.1	mg/kg	JD	J	15				N	10
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	23.6	1.5	0.2	mg/kg	EDB						N	10
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	8.8	0.36	0.012	mg/kg	DB						N	10
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	11.9	1.5	0.15	mg/kg	D						N	10
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	26400	36.5	2.3	mg/kg	D						N	10
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	7.9	1.5	0.058	mg/kg	D						N	10
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	858	73	1.3	mg/kg	D						N	10
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	600	1.5	0.042	mg/kg	D						N	10
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.034	0.029	0.0084	mg/kg							N	1
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.34	3.6	0.21	mg/kg	JD	J	15				N	10
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	7.4	0.73	0.064	mg/kg	D						N	10
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	6	1.5	0.067	mg/kg	D						N	10
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	360	1.5	0.22	mg/kg	D						N	10
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	28.6	7.3	0.36	mg/kg	EDB						N	10
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.012	0.04	0.012	mg/kg	U	UJ	11A				N	1
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Explosives	99-65-0	1,3-Dinitrobenzene	0.002	0.04	0.002	mg/kg	U	U					N	1
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.008	0.04	0.008	mg/kg	U	U					N	1
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Explosives	121-14-2	2,4-Dinitrotoluene	0.014	0.04	0.014	mg/kg	U	U					N	1
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Explosives	606-20-2	2,6-Dinitrotoluene	0.007	0.04	0.007	mg/kg	U	U					N	1
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.01	0.04	0.01	mg/kg	U	U					N	1
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Explosives	2691-41-0	HMX	0.012	0.08	0.012	mg/kg	U	U					N	1
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Explosives	99-08-1	3-Nitrotoluene	0.022	0.08	0.022	mg/kg	U	U					N	1
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Explosives	98-95-3	Nitrobenzene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Explosives	55-63-0	Nitroglycerine	0.04	4	0.04	mg/kg	U	U					N	1
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Explosives	88-72-2	2-Nitrotoluene	0.009	0.08	0.009	mg/kg	U	U					N	1
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Explosives	78-11-5	PETN	0.042	0.2	0.042	mg/kg	U	U					N	1
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Explosives	99-99-0	4-Nitrotoluene	0.036	0.08	0.036	mg/kg	U	U					N	1
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Explosives	121-82-4	RDX	0.071	0.08	0.071	mg/kg	U	U					N	1
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Explosives	479-45-8	Tetryl	0.004	0.08	0.004	mg/kg	U	U					N	1
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	13500	76.9	2.1	mg/kg	D						N	10
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.13	0.77	0.13	mg/kg	UND	U					N	10
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	77.4	3.8	0.18	mg/kg	DB						N	10
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.18	0.38	0.11	mg/kg	JD	J	15				N	10
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	20.4	1.5	0.22	mg/kg	EDB						N	10
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	12.1	0.38	0.013	mg/kg	D						N	10
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	10.2	1.5	0.15	mg/kg	D						N	10
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	19900	38.5	2.5	mg/kg	D						N	10
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	9.1	1.5	0.061	mg/kg	D						N	10
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	696	76.9	1.4	mg/kg	D						N	10
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	515	1.5	0.044	mg/kg	DB						N	10
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.028	0.026	0.0074	mg/kg							N	1
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.29	3.8	0.22	mg/kg	JD	J	15				N	10
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	7.6	0.77	0.068	mg/kg	D						N	10
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	3.5	1.5	0.071	mg/kg	D	J	19	12			N	10
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	317	1.5	0.23	mg/kg	D						N	10
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	22.6	7.7	0.38	mg/kg	EDB						N	10
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.012	0.04	0.012	mg/kg	U	UJ	11A				N	1
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Explosives	99-65-0	1,3-Dinitrobenzene	0.002	0.04	0.002	mg/kg	U	U					N	1
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.008	0.04	0.008	mg/kg	U	U					N	1
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Explosives	121-14-2	2,4-Dinitrotoluene	0.014	0.04	0.014	mg/kg	U	U					N	1
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Explosives	606-20-2	2,6-Dinitrotoluene	0.007	0.04	0.007	mg/kg	U	U					N	1

Attachment 1

Summary of Analytical Results
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.01	0.04	0.01	mg/kg	U	U					N	1
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Explosives	2691-41-0	HMX	0.012	0.08	0.012	mg/kg	U	U					N	1
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Explosives	99-08-1	3-Nitrotoluene	0.022	0.08	0.022	mg/kg	U	U					N	1
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Explosives	98-95-3	Nitrobenzene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Explosives	55-63-0	Nitroglycerine	0.04	4	0.04	mg/kg	U	U					N	1
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Explosives	88-72-2	2-Nitrotoluene	0.009	0.08	0.009	mg/kg	U	U					N	1
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Explosives	78-11-5	PETN	0.042	0.2	0.042	mg/kg	U	U					N	1
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Explosives	99-99-0	4-Nitrotoluene	0.036	0.08	0.036	mg/kg	U	U					N	1
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Explosives	121-82-4	RDX	0.071	0.08	0.071	mg/kg	U	U					N	1
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Explosives	479-45-8	Tetryl	0.004	0.08	0.004	mg/kg	U	U					N	1
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	17100	74.1	2	mg/kg	D						N	10
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.13	0.74	0.13	mg/kg	UND	U					N	10
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	123	3.7	0.17	mg/kg	DB						N	10
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.34	0.37	0.1	mg/kg	JD	J	15				N	10
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	25.8	1.5	0.21	mg/kg	EDB						N	10
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	14	0.37	0.013	mg/kg	D						N	10
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	17	1.5	0.15	mg/kg	D						N	10
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	26700	37	2.4	mg/kg	D						N	10
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	9.8	1.5	0.059	mg/kg	D						N	10
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	1460	74.1	1.3	mg/kg	D						N	10
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	613	1.5	0.042	mg/kg	DB						N	10
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.035	0.029	0.0085	mg/kg							N	1
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.35	3.7	0.21	mg/kg	JD	J	15				N	10
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	11.4	0.74	0.065	mg/kg	D						N	10
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	5.8	1.5	0.068	mg/kg	D	J	19	12			N	10
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	341	1.5	0.22	mg/kg	D						N	10
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	35.4	7.4	0.36	mg/kg	EDB						N	10
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.012	0.04	0.012	mg/kg	U	UJ	11A				N	1
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Explosives	99-65-0	1,3-Dinitrobenzene	0.002	0.04	0.002	mg/kg	U	U					N	1
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.008	0.04	0.008	mg/kg	U	U					N	1
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Explosives	121-14-2	2,4-Dinitrotoluene	0.014	0.04	0.014	mg/kg	U	U					N	1
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Explosives	606-20-2	2,6-Dinitrotoluene	0.007	0.04	0.007	mg/kg	U	U					N	1
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.01	0.04	0.01	mg/kg	U	U					N	1
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Explosives	2691-41-0	HMX	0.012	0.08	0.012	mg/kg	U	U					N	1
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Explosives	99-08-1	3-Nitrotoluene	0.022	0.08	0.022	mg/kg	U	U					N	1
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Explosives	98-95-3	Nitrobenzene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Explosives	55-63-0	Nitroglycerine	0.04	4	0.04	mg/kg	U	U					N	1
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Explosives	88-72-2	2-Nitrotoluene	0.009	0.08	0.009	mg/kg	U	U					N	1
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Explosives	78-11-5	PETN	0.041	0.2	0.041	mg/kg	U	U					N	1
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Explosives	99-99-0	4-Nitrotoluene	0.036	0.08	0.036	mg/kg	U	U					N	1
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Explosives	121-82-4	RDX	0.071	0.08	0.071	mg/kg	U	U					N	1
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Explosives	479-45-8	Tetryl	0.004	0.08	0.004	mg/kg	U	U					N	1
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Metals	7429-90-5	Aluminum	16800	79.4	2.1	mg/kg	D						N	10
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-36-0	Antimony	0.13	0.79	0.13	mg/kg	UND	U					N	10
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-39-3	Barium	163	4	0.18	mg/kg	DB						N	10
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-43-9	Cadmium	0.27	0.4	0.11	mg/kg	JD	J	15				N	10
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-47-3	Chromium	22	1.6	0.22	mg/kg	EDB						N	10
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-48-4	Cobalt	12.2	0.4	0.013	mg/kg	D						N	10
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-50-8	Copper	17.7	1.6	0.16	mg/kg	D						N	10
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Metals	7439-89-6	Iron	18700	39.7	2.5	mg/kg	D						N	10
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Metals	7439-92-1	Lead	13.8	1.6	0.063	mg/kg	D						N	10
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Metals	7439-95-4	Magnesium	2120	79.4	1.4	mg/kg	D						N	10
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Metals	7439-96-5	Manganese	375	1.6	0.045	mg/kg	DB						N	10
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Metals	7439-97-6	Mercury	0.042	0.024	0.0069	mg/kg							N	1
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Metals	7439-98-7	Molybdenum	0.3	4	0.23	mg/kg	JD	J	15				N	10
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-02-0	Nickel	12.7	0.79	0.07	mg/kg	D						N	10
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-24-6	Strontium	22.4	1.6	0.073	mg/kg	D	J	19	12			N	10
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-32-6	Titanium	489	1.6	0.24	mg/kg	D						N	10
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-66-6	Zinc	41.1	7.9	0.39	mg/kg	EDB						N	10

Attachment 1

Summary of Analytical Results
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.012	0.04	0.012	mg/kg	U	U					N	1
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Explosives	99-65-0	1,3-Dinitrobenzene	0.002	0.04	0.002	mg/kg	U	U					N	1
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.008	0.04	0.008	mg/kg	U	U					N	1
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Explosives	121-14-2	2,4-Dinitrotoluene	0.014	0.04	0.014	mg/kg	U	U					N	1
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Explosives	606-20-2	2,6-Dinitrotoluene	0.007	0.04	0.007	mg/kg	U	U					N	1
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.01	0.04	0.01	mg/kg	U	U					N	1
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Explosives	2691-41-0	HMX	0.012	0.08	0.012	mg/kg	U	U					N	1
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Explosives	99-08-1	3-Nitrotoluene	0.022	0.08	0.022	mg/kg	U	U					N	1
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Explosives	98-95-3	Nitrobenzene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Explosives	55-63-0	Nitroglycerine	0.04	4	0.04	mg/kg	U	UJ	11A				N	1
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Explosives	88-72-2	2-Nitrotoluene	0.009	0.08	0.009	mg/kg	U	U					N	1
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Explosives	78-11-5	PETN	0.042	0.2	0.042	mg/kg	U	U					N	1
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Explosives	99-99-0	4-Nitrotoluene	0.036	0.08	0.036	mg/kg	U	U					N	1
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Explosives	121-82-4	RDX	0.071	0.08	0.071	mg/kg	U	U					N	1
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Explosives	479-45-8	Tetryl	0.004	0.08	0.004	mg/kg	U	U					N	1
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Metals	7429-90-5	Aluminum	19200	81.3	2.2	mg/kg	D						N	10
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Metals	7440-36-0	Antimony	0.14	0.81	0.14	mg/kg	UND	U					N	10
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Metals	7440-39-3	Barium	142	4.1	0.19	mg/kg	NDB						N	10
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Metals	7440-43-9	Cadmium	0.16	0.41	0.11	mg/kg	JD	J	15				N	10
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Metals	7440-47-3	Chromium	23.8	1.6	0.23	mg/kg	EDB						N	10
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Metals	7440-48-4	Cobalt	12.4	0.41	0.014	mg/kg	DB						N	10
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Metals	7440-50-8	Copper	12.1	1.6	0.16	mg/kg	D						N	10
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Metals	7439-89-6	Iron	27800	40.7	2.6	mg/kg	D						N	10
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Metals	7439-92-1	Lead	11.9	1.6	0.064	mg/kg	D						N	10
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Metals	7439-95-4	Magnesium	1730	81.3	1.5	mg/kg	D						N	10
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Metals	7439-96-5	Manganese	712	1.6	0.046	mg/kg	D						N	10
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Metals	7439-97-6	Mercury	0.058	0.028	0.0083	mg/kg							N	1
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Metals	7439-98-7	Molybdenum	0.36	4.1	0.24	mg/kg	JD	J	15				N	10
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Metals	7440-02-0	Nickel	10.6	0.81	0.072	mg/kg	D						N	10
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Metals	7440-24-6	Strontium	39	1.6	0.075	mg/kg	D						N	10
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Metals	7440-32-6	Titanium	206	1.6	0.24	mg/kg	D						N	10
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Metals	7440-66-6	Zinc	34.3	8.1	0.4	mg/kg	EDB						N	10
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.042	0.2	0.042	ug/L	U	UJ	08B	08A			N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Explosives	99-65-0	1,3-Dinitrobenzene	0.038	0.2	0.028	ug/L	J	J	15	08A			N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.077	0.2	0.05	ug/L	J	J	15	18	08A	08B	N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Explosives	121-14-2	2,4-Dinitrotoluene	0.027	0.2	0.022	ug/L	J	J	15	18	08A	08B	N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Explosives	606-20-2	2,6-Dinitrotoluene	0.04	0.2	0.04	ug/L	U	UJ	08B				N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.072	0.2	0.044	ug/L	J	J	15	18	08B		N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.079	0.2	0.034	ug/L	J	J	15	18	08B		N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Explosives	2691-41-0	HMX	0.14	0.4	0.021	ug/L	J	J	15	18	11A	08A	N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Explosives	99-08-1	3-Nitrotoluene	0.11	0.4	0.11	ug/L	U	UJ	08B				N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Explosives	98-95-3	Nitrobenzene	0.017	0.2	0.017	ug/L	U	UJ	08A				N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Explosives	55-63-0	Nitroglycerine	0.2	20	0.2	ug/L	U	U					N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Explosives	88-72-2	2-Nitrotoluene	0.076	0.4	0.076	ug/L	U	UJ	08B				N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Explosives	78-11-5	PETN	0.004	0.051	0.004	ug/L	U	U					N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Explosives	99-99-0	4-Nitrotoluene	0.079	0.4	0.079	ug/L	U	UJ	08B				N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Explosives	121-82-4	RDX	0.08	0.4	0.08	ug/L	U	UJ	08A				N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Explosives	479-45-8	Tetryl	0.035	0.4	0.035	ug/L	U	UJ	08B	08A			N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Metals	7429-90-5	Aluminum	5.5	100	5.5	ug/L	U	U					N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Metals	7440-36-0	Antimony	0.13	1	0.13	ug/L	U	U					N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Metals	7440-39-3	Barium	10	5	0.15	ug/L	B						N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Metals	7440-43-9	Cadmium	0.17	0.5	0.17	ug/L	U	U					N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Metals	7440-47-3	Chromium	1.3	2	1.3	ug/L	U	U					N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Metals	7440-48-4	Cobalt	0.016	1	0.016	ug/L	U	U					N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Metals	7440-50-8	Copper	2.3	2	0.43	ug/L							N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Metals	7439-89-6	Iron	36.9	50	5.5	ug/L	J	J	15				N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Metals	7439-92-1	Lead	0.18	2	0.18	ug/L	U	U					N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Metals	7439-95-4	Magnesium	7500	100	4.8	ug/L							N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Metals	7439-96-5	Manganese	32.1	2	0.39	ug/L							N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Metals	7439-97-6	Mercury	0.034	0.2	0.034	ug/L	U	U					N	1

Attachment 1

Summary of Analytical Results
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Metals	7439-98-7	Molybdenum	0.45	5	0.12	ug/L	J	J	15				N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Metals	7440-02-0	Nickel	1	1	0.15	ug/L	B						N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Metals	7440-24-6	Strontium	197	2	0.17	ug/L		J	19	12			N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Metals	7440-32-6	Titanium	0.9	2	0.29	ug/L	J	J	15				N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Metals	7440-66-6	Zinc	13.8	10	1.8	ug/L							N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Perchlorate	14797-73-0	Perchlorate	0.0612	0.2	0.0612	ug/L	U	U					Y	1
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.012	0.04	0.012	mg/kg	U	U					N	1
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Explosives	99-65-0	1,3-Dinitrobenzene	0.002	0.04	0.002	mg/kg	U	U					N	1
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.008	0.04	0.008	mg/kg	U	U					N	1
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Explosives	121-14-2	2,4-Dinitrotoluene	0.014	0.04	0.014	mg/kg	U	U					N	1
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Explosives	606-20-2	2,6-Dinitrotoluene	0.007	0.04	0.007	mg/kg	U	U					N	1
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.01	0.04	0.01	mg/kg	U	U					N	1
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Explosives	2691-41-0	HMX	0.012	0.08	0.012	mg/kg	U	U					N	1
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Explosives	99-08-1	3-Nitrotoluene	0.022	0.08	0.022	mg/kg	U	U					N	1
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Explosives	98-95-3	Nitrobenzene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Explosives	55-63-0	Nitroglycerine	0.04	4	0.04	mg/kg	U	UJ	11A				N	1
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Explosives	88-72-2	2-Nitrotoluene	0.009	0.08	0.009	mg/kg	U	U					N	1
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Explosives	78-11-5	PETN	0.042	0.2	0.042	mg/kg	U	U					N	1
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Explosives	99-99-0	4-Nitrotoluene	0.036	0.08	0.036	mg/kg	U	U					N	1
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Explosives	121-82-4	RDX	0.071	0.08	0.071	mg/kg	U	U					N	1
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Explosives	479-45-8	Tetryl	0.004	0.08	0.004	mg/kg	U	U					N	1
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	21500	84	2.3	mg/kg	D						N	10
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.19	0.84	0.14	mg/kg	JND	J	15				N	10
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	179	4.2	0.19	mg/kg	NDB						N	10
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.3	0.42	0.12	mg/kg	JD	J	15				N	10
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	27.5	1.7	0.24	mg/kg	EDB						N	10
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	14.9	0.42	0.014	mg/kg	DB						N	10
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	39.6	1.7	0.17	mg/kg	D						N	10
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	32100	42	2.7	mg/kg	D						N	10
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	13	1.7	0.066	mg/kg	D						N	10
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	4880	84	1.5	mg/kg	D						N	10
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	740	1.7	0.048	mg/kg	D						N	10
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.041	0.03	0.0088	mg/kg							N	1
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.61	4.2	0.24	mg/kg	JD	J	15				N	10
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	18.8	0.84	0.074	mg/kg	D						N	10
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	41	1.7	0.077	mg/kg	D						N	10
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	1560	1.7	0.25	mg/kg	D						N	10
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	82.3	8.4	0.41	mg/kg	EDB						N	10
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.012	0.04	0.012	mg/kg	U	U					N	1
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Explosives	99-65-0	1,3-Dinitrobenzene	0.002	0.04	0.002	mg/kg	U	U					N	1
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.008	0.04	0.008	mg/kg	U	U					N	1
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Explosives	121-14-2	2,4-Dinitrotoluene	0.014	0.04	0.014	mg/kg	U	U					N	1
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Explosives	606-20-2	2,6-Dinitrotoluene	0.007	0.04	0.007	mg/kg	U	U					N	1
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.01	0.04	0.01	mg/kg	U	U					N	1
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Explosives	2691-41-0	HMX	0.012	0.08	0.012	mg/kg	U	U					N	1
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Explosives	99-08-1	3-Nitrotoluene	0.022	0.08	0.022	mg/kg	U	U					N	1
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Explosives	98-95-3	Nitrobenzene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Explosives	55-63-0	Nitroglycerine	0.04	4	0.04	mg/kg	U	UJ	11A				N	1
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Explosives	88-72-2	2-Nitrotoluene	0.009	0.08	0.009	mg/kg	U	U					N	1
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Explosives	78-11-5	PETN	0.042	0.2	0.042	mg/kg	U	U					N	1
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Explosives	99-99-0	4-Nitrotoluene	0.036	0.08	0.036	mg/kg	U	U					N	1
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Explosives	121-82-4	RDX	0.071	0.08	0.071	mg/kg	U	U					N	1
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Explosives	479-45-8	Tetryl	0.004	0.08	0.004	mg/kg	U	U					N	1
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	24100	78.1	2.1	mg/kg	D						N	10
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.16	0.78	0.13	mg/kg	JND	J	15				N	10
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	168	3.9	0.18	mg/kg	NDB						N	10
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.31	0.39	0.11	mg/kg	JD	J	15				N	10
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	29.1	1.6	0.22	mg/kg	EDB						N	10
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	16	0.39	0.013	mg/kg	DB						N	10

Attachment 1

Summary of Analytical Results
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	18.6	1.6	0.16	mg/kg	D						N	10
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	31300	39.1	2.5	mg/kg	D						N	10
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	14.9	1.6	0.062	mg/kg	D						N	10
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	4590	78.1	1.4	mg/kg	D						N	10
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	856	1.6	0.045	mg/kg	D						N	10
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.024	0.033	0.0095	mg/kg	J	U	06B				N	1
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.48	3.9	0.23	mg/kg	JD	J	15				N	10
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	17.8	0.78	0.069	mg/kg	D						N	10
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	23.4	1.6	0.072	mg/kg	D						N	10
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	1680	1.6	0.23	mg/kg	D						N	10
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	71.9	7.8	0.38	mg/kg	EDB						N	10
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.012	0.04	0.012	mg/kg	U	UJ	11A				N	1
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Explosives	99-65-0	1,3-Dinitrobenzene	0.002	0.04	0.002	mg/kg	U	U					N	1
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.008	0.04	0.008	mg/kg	U	U					N	1
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Explosives	121-14-2	2,4-Dinitrotoluene	0.014	0.04	0.014	mg/kg	U	U					N	1
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Explosives	606-20-2	2,6-Dinitrotoluene	0.007	0.04	0.007	mg/kg	U	U					N	1
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.01	0.04	0.01	mg/kg	U	U					N	1
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Explosives	19406-51-0	4-Amino-2,6-dinitrotoluene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Explosives	2691-41-0	HMX	0.012	0.08	0.012	mg/kg	U	U					N	1
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Explosives	98-95-3	Nitrobenzene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Explosives	55-63-0	Nitroglycerine	0.04	4	0.04	mg/kg	U	U					N	1
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Explosives	78-11-5	PETN	0.041	0.2	0.041	mg/kg	U	U					N	1
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Explosives	121-82-4	RDX	0.071	0.08	0.071	mg/kg	U	U					N	1
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Explosives	479-45-8	Tetryl	0.004	0.08	0.004	mg/kg	U	U					N	1
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Explosives	99-08-1	3-Nitrotoluene	0.022	0.08	0.022	mg/kg	U	U					N	1
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Explosives	88-72-2	2-Nitrotoluene	0.009	0.08	0.009	mg/kg	U	U					N	1
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Explosives	99-99-0	4-Nitrotoluene	0.036	0.08	0.036	mg/kg	U	U					N	1
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	21800	160	4.3	mg/kg	D						N	20
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.27	1.6	0.27	mg/kg	UND	U					N	20
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	182	8	0.37	mg/kg	D						N	20
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.39	0.8	0.22	mg/kg	JD	J	15				N	20
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	32.2	3.2	0.45	mg/kg	EDB						N	20
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	16.4	0.8	0.027	mg/kg	DB						N	20
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	17.3	3.2	0.32	mg/kg	DB						N	20
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	30800	80	5.1	mg/kg	D						N	20
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	15.1	3.2	0.13	mg/kg	D						N	20
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	4000	160	2.9	mg/kg	D						N	20
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	952	3.2	0.091	mg/kg	D						N	20
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.026	0.026	0.0075	mg/kg							N	1
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.46	8	0.46	mg/kg	UD	U					N	20
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	17.9	1.6	0.14	mg/kg	DB						N	20
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	25.3	3.2	0.15	mg/kg	D	J	19	12			N	20
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	1490	3.2	0.48	mg/kg	D						N	20
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	63.3	16	0.78	mg/kg	EDB						N	20
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.012	0.04	0.012	mg/kg	U	U					N	1
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Explosives	99-65-0	1,3-Dinitrobenzene	0.002	0.04	0.002	mg/kg	U	U					N	1
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.008	0.04	0.008	mg/kg	U	U					N	1
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Explosives	121-14-2	2,4-Dinitrotoluene	0.014	0.04	0.014	mg/kg	U	U					N	1
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Explosives	606-20-2	2,6-Dinitrotoluene	0.007	0.04	0.007	mg/kg	U	U					N	1
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.01	0.04	0.01	mg/kg	U	U					N	1
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Explosives	2691-41-0	HMX	0.012	0.08	0.012	mg/kg	U	U					N	1
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Explosives	99-08-1	3-Nitrotoluene	0.022	0.08	0.022	mg/kg	U	U					N	1
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Explosives	98-95-3	Nitrobenzene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Explosives	55-63-0	Nitroglycerine	0.04	4	0.04	mg/kg	U	UJ	11A				N	1
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Explosives	88-72-2	2-Nitrotoluene	0.009	0.08	0.009	mg/kg	U	U					N	1
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Explosives	78-11-5	PETN	0.041	0.2	0.041	mg/kg	U	U					N	1
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Explosives	99-99-0	4-Nitrotoluene	0.036	0.08	0.036	mg/kg	U	U					N	1
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Explosives	121-82-4	RDX	0.071	0.08	0.071	mg/kg	U	U					N	1
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Explosives	479-45-8	Tetryl	0.004	0.08	0.004	mg/kg	U	U					N	1
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Metals	7429-90-5	Aluminum	21600	82	2.2	mg/kg	D						N	10

Attachment 1

Summary of Analytical Results
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-36-0	Antimony	0.16	0.82	0.14	mg/kg	JND	J	15				N	10
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-39-3	Barium	141	4.1	0.19	mg/kg	NDB						N	10
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-43-9	Cadmium	0.24	0.41	0.11	mg/kg	JD	J	15				N	10
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-47-3	Chromium	31.6	1.6	0.23	mg/kg	EDB						N	10
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-48-4	Cobalt	22.5	0.41	0.014	mg/kg	DB						N	10
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-50-8	Copper	36.7	1.6	0.16	mg/kg	D						N	10
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Metals	7439-89-6	Iron	37100	41	2.6	mg/kg	D						N	10
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Metals	7439-92-1	Lead	22.9	1.6	0.065	mg/kg	D						N	10
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Metals	7439-95-4	Magnesium	2890	82	1.5	mg/kg	D						N	10
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Metals	7439-96-5	Manganese	724	1.6	0.047	mg/kg	D						N	10
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Metals	7439-97-6	Mercury	0.086	0.032	0.0093	mg/kg							N	1
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Metals	7439-98-7	Molybdenum	0.55	4.1	0.24	mg/kg	JD	J	15				N	10
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-02-0	Nickel	13.5	0.82	0.072	mg/kg	D						N	10
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-24-6	Strontium	27.9	1.6	0.075	mg/kg	D						N	10
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-32-6	Titanium	312	1.6	0.25	mg/kg	D						N	10
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-66-6	Zinc	59.5	8.2	0.4	mg/kg	EDB						N	10
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.012	0.04	0.012	mg/kg	U	U					N	1
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Explosives	99-65-0	1,3-Dinitrobenzene	0.002	0.04	0.002	mg/kg	U	U					N	1
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.008	0.04	0.008	mg/kg	U	U					N	1
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Explosives	121-14-2	2,4-Dinitrotoluene	0.014	0.04	0.014	mg/kg	U	U					N	1
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Explosives	606-20-2	2,6-Dinitrotoluene	0.007	0.04	0.007	mg/kg	U	U					N	1
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.01	0.04	0.01	mg/kg	U	U					N	1
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Explosives	2691-41-0	HMX	0.012	0.08	0.012	mg/kg	U	U					N	1
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Explosives	99-08-1	3-Nitrotoluene	0.022	0.08	0.022	mg/kg	U	U					N	1
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Explosives	98-95-3	Nitrobenzene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Explosives	55-63-0	Nitroglycerine	0.04	4	0.04	mg/kg	U	U					N	1
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Explosives	88-72-2	2-Nitrotoluene	0.009	0.08	0.009	mg/kg	U	U					N	1
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Explosives	78-11-5	PETN	0.042	0.2	0.042	mg/kg	U	U					N	1
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Explosives	99-99-0	4-Nitrotoluene	0.036	0.08	0.036	mg/kg	U	U					N	1
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Explosives	121-82-4	RDX	0.071	0.08	0.071	mg/kg	U	U					N	1
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Explosives	479-45-8	Tetryl	0.004	0.08	0.004	mg/kg	U	U					N	1
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	23500	82	2.2	mg/kg	D						N	10
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.14	0.82	0.14	mg/kg	UD	U					N	10
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	139	4.1	0.19	mg/kg	D						N	10
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.19	0.41	0.11	mg/kg	JD	J	15				N	10
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	26.1	1.6	0.23	mg/kg	DB						N	10
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	13.6	0.82	0.014	mg/kg	DB						N	10
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	16.9	1.6	0.16	mg/kg	D						N	10
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	25700	41	2.6	mg/kg	D						N	10
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	12.8	1.6	0.065	mg/kg	D						N	10
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	2980	82	1.5	mg/kg	D						N	10
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	770	1.6	0.047	mg/kg	D						N	10
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.043	0.032	0.0092	mg/kg		U	06A				N	1
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.38	4.1	0.24	mg/kg	JD	J	15				N	10
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	13	0.82	0.072	mg/kg	D						N	10
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	12.7	1.6	0.075	mg/kg	D	J	12				N	10
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	865	1.6	0.25	mg/kg	D						N	10
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	42.8	8.2	0.4	mg/kg	DB						N	10
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.012	0.04	0.012	mg/kg	U	U					N	1
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Explosives	99-65-0	1,3-Dinitrobenzene	0.002	0.04	0.002	mg/kg	U	U					N	1
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.008	0.04	0.008	mg/kg	U	U					N	1
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Explosives	121-14-2	2,4-Dinitrotoluene	0.014	0.04	0.014	mg/kg	U	U					N	1
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Explosives	606-20-2	2,6-Dinitrotoluene	0.007	0.04	0.007	mg/kg	U	U					N	1
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.01	0.04	0.01	mg/kg	U	U					N	1
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Explosives	2691-41-0	HMX	0.012	0.08	0.012	mg/kg	U	U					N	1
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Explosives	99-08-1	3-Nitrotoluene	0.022	0.08	0.022	mg/kg	U	U					N	1
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Explosives	98-95-3	Nitrobenzene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Explosives	55-63-0	Nitroglycerine	0.04	4	0.04	mg/kg	U	U					N	1
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Explosives	88-72-2	2-Nitrotoluene	0.009	0.08	0.009	mg/kg	U	U					N	1

Attachment 1

Summary of Analytical Results
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Explosives	78-11-5	PETN	0.042	0.2	0.042	mg/kg	U	U					N	1
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Explosives	99-99-0	4-Nitrotoluene	0.036	0.08	0.036	mg/kg	U	U					N	1
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Explosives	121-82-4	RDX	0.071	0.08	0.071	mg/kg	U	U					N	1
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Explosives	479-45-8	Tetryl	0.004	0.08	0.004	mg/kg	U	U					N	1
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	25200	78.1	2.1	mg/kg	D						N	10
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.13	0.78	0.13	mg/kg	UD	U					N	10
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	112	3.9	0.18	mg/kg	D						N	10
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.16	0.39	0.11	mg/kg	JD	J	15				N	10
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	24.9	1.6	0.22	mg/kg	DB						N	10
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	10.5	0.78	0.013	mg/kg	DB						N	10
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	28.2	1.6	0.16	mg/kg	D						N	10
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	28100	39.1	2.5	mg/kg	D						N	10
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	10.1	1.6	0.062	mg/kg	D						N	10
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	2270	78.1	1.4	mg/kg	D						N	10
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	615	1.6	0.045	mg/kg	D						N	10
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.027	0.028	0.008	mg/kg	J	U	06A				N	1
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.82	3.9	0.23	mg/kg	JD	J	15				N	10
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	10.6	0.78	0.069	mg/kg	D						N	10
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	19.2	1.6	0.072	mg/kg	D	J	12				N	10
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	664	1.6	0.23	mg/kg	D						N	10
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	64.6	7.8	0.38	mg/kg	DB						N	10
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.03	0.1	0.03	mg/kg	U	U					N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Explosives	99-65-0	1,3-Dinitrobenzene	0.005	0.1	0.005	mg/kg	U	U					N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.02	0.1	0.02	mg/kg	U	U					N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Explosives	121-14-2	2,4-Dinitrotoluene	0.035	0.1	0.035	mg/kg	U	U					N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Explosives	606-20-2	2,6-Dinitrotoluene	0.018	0.1	0.018	mg/kg	U	U					N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.025	0.1	0.025	mg/kg	U	U					N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.015	0.1	0.015	mg/kg	U	U					N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Explosives	2691-41-0	HMX	0.03	0.2	0.03	mg/kg	U	U					N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Explosives	99-08-1	3-Nitrotoluene	0.055	0.2	0.055	mg/kg	U	U					N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Explosives	98-95-3	Nitrobenzene	0.016	0.1	0.016	mg/kg	U	U					N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Explosives	55-63-0	Nitroglycerine	0.01	1	0.01	mg/kg	U	U					N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Explosives	88-72-2	2-Nitrotoluene	0.022	0.2	0.022	mg/kg	U	U					N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Explosives	78-11-5	PETN	0.01	0.05	0.01	mg/kg	U	U					N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Explosives	99-99-0	4-Nitrotoluene	0.09	0.2	0.09	mg/kg	U	U					N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Explosives	121-82-4	RDX	0.18	0.2	0.18	mg/kg	U	U					N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Explosives	479-45-8	Tetryl	0.011	0.2	0.011	mg/kg	U	U					N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	2680	8.1	0.22	mg/kg							N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.014	0.081	0.014	mg/kg	U	U					N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	17.8	0.4	0.019	mg/kg							N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.032	0.04	0.011	mg/kg	J	J	15				N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	2.9	0.16	0.023	mg/kg	B	U	06A				N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	2.1	0.081	0.0014	mg/kg	B						N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	2	0.16	0.016	mg/kg							N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	3350	4	0.26	mg/kg							N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	1.6	0.16	0.0064	mg/kg							N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	419	8.1	0.15	mg/kg							N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	104	0.16	0.0046	mg/kg							N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.024	0.032	0.0093	mg/kg	J	J	15				N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.042	0.4	0.023	mg/kg	J	J	15				N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	1.6	0.081	0.0071	mg/kg							N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	2.3	0.16	0.0074	mg/kg		J	12				N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	104	0.16	0.024	mg/kg							N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	5.6	0.81	0.04	mg/kg	B						N	1
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.012	0.04	0.012	mg/kg	U	UJ	11A				N	1
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Explosives	99-65-0	1,3-Dinitrobenzene	0.002	0.04	0.002	mg/kg	U	U					N	1
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.008	0.04	0.008	mg/kg	U	U					N	1
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Explosives	121-14-2	2,4-Dinitrotoluene	0.014	0.04	0.014	mg/kg	U	U					N	1
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Explosives	606-20-2	2,6-Dinitrotoluene	0.007	0.04	0.007	mg/kg	U	U					N	1
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.01	0.04	0.01	mg/kg	U	U					N	1
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.006	0.04	0.006	mg/kg	U	U					N	1

Attachment 1

Summary of Analytical Results
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Explosives	2691-41-0	HMX	0.012	0.08	0.012	mg/kg	U	U					N	1
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Explosives	99-08-1	3-Nitrotoluene	0.022	0.08	0.022	mg/kg	U	U					N	1
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Explosives	98-95-3	Nitrobenzene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Explosives	55-63-0	Nitroglycerine	0.04	4	0.04	mg/kg	U	U					N	1
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Explosives	88-72-2	2-Nitrotoluene	0.009	0.08	0.009	mg/kg	U	U					N	1
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Explosives	78-11-5	PETN	0.042	0.2	0.042	mg/kg	U	U					N	1
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Explosives	99-99-0	4-Nitrotoluene	0.036	0.08	0.036	mg/kg	U	U					N	1
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Explosives	121-82-4	RDX	0.071	0.08	0.071	mg/kg	U	U					N	1
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Explosives	479-45-8	Tetryl	0.004	0.08	0.004	mg/kg	U	U					N	1
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Metals	7429-90-5	Aluminum	21500	84	2.3	mg/kg	D						N	10
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-36-0	Antimony	0.14	0.84	0.14	mg/kg	UND	U					N	10
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-39-3	Barium	177	4.2	0.19	mg/kg	DB						N	10
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-43-9	Cadmium	0.43	0.42	0.12	mg/kg	D						N	10
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-47-3	Chromium	26.8	1.7	0.24	mg/kg	EDB						N	10
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-48-4	Cobalt	11.5	0.42	0.014	mg/kg	D						N	10
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-50-8	Copper	26.3	1.7	0.17	mg/kg	D						N	10
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Metals	7439-89-6	Iron	37400	42	2.7	mg/kg	D						N	10
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Metals	7439-92-1	Lead	11.2	1.7	0.066	mg/kg	D						N	10
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Metals	7439-95-4	Magnesium	5080	84	1.5	mg/kg	D						N	10
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Metals	7439-96-5	Manganese	284	1.7	0.048	mg/kg	DB						N	10
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Metals	7439-97-6	Mercury	0.035	0.025	0.0072	mg/kg							N	1
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Metals	7439-98-7	Molybdenum	0.4	4.2	0.24	mg/kg	JD	J	15				N	10
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-02-0	Nickel	20.8	0.84	0.074	mg/kg	D						N	10
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-24-6	Strontium	20.1	1.7	0.077	mg/kg	D	J	19	12			N	10
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-32-6	Titanium	662	1.7	0.25	mg/kg	D						N	10
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-66-6	Zinc	82.4	8.4	0.41	mg/kg	EDB						N	10
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.012	0.04	0.012	mg/kg	U	UJ	11A				N	1
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Explosives	99-65-0	1,3-Dinitrobenzene	0.002	0.04	0.002	mg/kg	U	U					N	1
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.008	0.04	0.008	mg/kg	U	U					N	1
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Explosives	121-14-2	2,4-Dinitrotoluene	0.014	0.04	0.014	mg/kg	U	U					N	1
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Explosives	606-20-2	2,6-Dinitrotoluene	0.007	0.04	0.007	mg/kg	U	U					N	1
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.01	0.04	0.01	mg/kg	U	U					N	1
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Explosives	2691-41-0	HMX	0.012	0.08	0.012	mg/kg	U	U					N	1
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Explosives	99-08-1	3-Nitrotoluene	0.022	0.08	0.022	mg/kg	U	U					N	1
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Explosives	98-95-3	Nitrobenzene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Explosives	55-63-0	Nitroglycerine	0.04	4	0.04	mg/kg	U	U					N	1
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Explosives	88-72-2	2-Nitrotoluene	0.009	0.08	0.009	mg/kg	U	U					N	1
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Explosives	78-11-5	PETN	0.042	0.2	0.042	mg/kg	U	U					N	1
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Explosives	99-99-0	4-Nitrotoluene	0.036	0.08	0.036	mg/kg	U	U					N	1
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Explosives	121-82-4	RDX	0.071	0.08	0.071	mg/kg	U	U					N	1
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Explosives	479-45-8	Tetryl	0.004	0.08	0.004	mg/kg	U	U					N	1
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Metals	7429-90-5	Aluminum	14500	83.3	2.2	mg/kg	D						N	10
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Metals	7440-36-0	Antimony	0.14	0.83	0.14	mg/kg	UND	U					N	10
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Metals	7440-39-3	Barium	125	4.2	0.19	mg/kg	DB						N	10
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Metals	7440-43-9	Cadmium	0.28	0.42	0.12	mg/kg	JD	J	15				N	10
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Metals	7440-47-3	Chromium	17.8	1.7	0.23	mg/kg	EDB						N	10
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Metals	7440-48-4	Cobalt	11.4	0.42	0.014	mg/kg	D						N	10
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Metals	7440-50-8	Copper	15.2	1.7	0.17	mg/kg	D						N	10
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Metals	7439-89-6	Iron	33000	41.7	2.7	mg/kg	D						N	10
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Metals	7439-92-1	Lead	9.9	1.7	0.066	mg/kg	D						N	10
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Metals	7439-95-4	Magnesium	3550	83.3	1.5	mg/kg	D						N	10
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Metals	7439-96-5	Manganese	419	1.7	0.048	mg/kg	DB						N	10
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Metals	7439-97-6	Mercury	0.027	0.021	0.006	mg/kg							N	1
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Metals	7439-98-7	Molybdenum	0.33	4.2	0.24	mg/kg	JD	J	15				N	10
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Metals	7440-02-0	Nickel	14.4	0.83	0.073	mg/kg	D						N	10
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Metals	7440-24-6	Strontium	16.8	1.7	0.077	mg/kg	D	J	19	12			N	10
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Metals	7440-32-6	Titanium	729	1.7	0.25	mg/kg	D						N	10
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Metals	7440-66-6	Zinc	67.2	8.3	0.41	mg/kg	EDB						N	10
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.012	0.04	0.012	mg/kg	U	UJ	11A				N	1
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Explosives	99-65-0	1,3-Dinitrobenzene	0.002	0.04	0.002	mg/kg	U	U					N	1

Attachment 1

Summary of Analytical Results
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.008	0.04	0.008	mg/kg	U	U					N	1
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Explosives	121-14-2	2,4-Dinitrotoluene	0.014	0.04	0.014	mg/kg	U	U					N	1
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Explosives	606-20-2	2,6-Dinitrotoluene	0.007	0.04	0.007	mg/kg	U	U					N	1
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.01	0.04	0.01	mg/kg	U	U					N	1
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Explosives	2691-41-0	HMX	0.012	0.08	0.012	mg/kg	U	U					N	1
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Explosives	99-08-1	3-Nitrotoluene	0.022	0.08	0.022	mg/kg	U	U					N	1
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Explosives	98-95-3	Nitrobenzene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Explosives	55-63-0	Nitroglycerine	0.04	4	0.04	mg/kg	U	U					N	1
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Explosives	88-72-2	2-Nitrotoluene	0.009	0.08	0.009	mg/kg	U	U					N	1
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Explosives	78-11-5	PETN	0.042	0.2	0.042	mg/kg	U	U					N	1
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Explosives	99-99-0	4-Nitrotoluene	0.036	0.08	0.036	mg/kg	U	U					N	1
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Explosives	121-82-4	RDX	0.071	0.08	0.071	mg/kg	U	U					N	1
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Explosives	479-45-8	Tetryl	0.004	0.08	0.004	mg/kg	U	U					N	1
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Metals	7429-90-5	Aluminum	16000	80	2.2	mg/kg	D						N	10
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Metals	7440-36-0	Antimony	0.14	0.8	0.14	mg/kg	UND	U					N	10
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Metals	7440-39-3	Barium	135	4	0.18	mg/kg	DB						N	10
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Metals	7440-43-9	Cadmium	0.36	0.4	0.11	mg/kg	JD	J	15				N	10
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Metals	7440-47-3	Chromium	19.4	1.6	0.22	mg/kg	EDB						N	10
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Metals	7440-48-4	Cobalt	12.5	0.4	0.014	mg/kg	D						N	10
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Metals	7440-50-8	Copper	16.8	1.6	0.16	mg/kg	D						N	10
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Metals	7439-89-6	Iron	34400	40	2.6	mg/kg	D						N	10
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Metals	7439-92-1	Lead	10.2	1.6	0.063	mg/kg	D						N	10
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Metals	7439-95-4	Magnesium	3850	80	1.4	mg/kg	D						N	10
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Metals	7439-96-5	Manganese	475	1.6	0.046	mg/kg	DB						N	10
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Metals	7439-97-6	Mercury	0.024	0.027	0.0078	mg/kg	J	J	15				N	1
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Metals	7439-98-7	Molybdenum	0.33	4	0.23	mg/kg	JD	J	15				N	10
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Metals	7440-02-0	Nickel	15.5	0.8	0.07	mg/kg	D						N	10
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Metals	7440-24-6	Strontium	17.5	1.6	0.074	mg/kg	D	J	19	12			N	10
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Metals	7440-32-6	Titanium	742	1.6	0.24	mg/kg	D						N	10
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Metals	7440-66-6	Zinc	68.3	8	0.39	mg/kg	EDB						N	10
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.042	0.2	0.042	ug/L	U	U					N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Explosives	99-65-0	1,3-Dinitrobenzene	0.028	0.2	0.028	ug/L	U	U					N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.05	0.2	0.05	ug/L	U	U					N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Explosives	121-14-2	2,4-Dinitrotoluene	0.022	0.2	0.022	ug/L	U	U					N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Explosives	606-20-2	2,6-Dinitrotoluene	0.041	0.2	0.041	ug/L	U	U					N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.044	0.2	0.044	ug/L	U	U					N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.034	0.2	0.034	ug/L	U	U					N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Explosives	2691-41-0	HMX	0.021	0.41	0.021	ug/L	U	UJ	11A				N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Explosives	99-08-1	3-Nitrotoluene	0.11	0.41	0.11	ug/L	U	U					N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Explosives	98-95-3	Nitrobenzene	0.017	0.2	0.017	ug/L	U	U					N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Explosives	55-63-0	Nitroglycerine	0.2	20	0.2	ug/L	U	U					N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Explosives	88-72-2	2-Nitrotoluene	0.077	0.41	0.077	ug/L	U	U					N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Explosives	78-11-5	PETN	0.004	0.051	0.004	ug/L	U	U					N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Explosives	99-99-0	4-Nitrotoluene	0.079	0.41	0.079	ug/L	U	U					N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Explosives	121-82-4	RDX	0.081	0.41	0.081	ug/L	U	U					N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Explosives	479-45-8	Tetryl	0.035	0.41	0.035	ug/L	U	U					N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Metals	7429-90-5	Aluminum	38	100	5.5	ug/L	J	U	06A				N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Metals	7440-36-0	Antimony	0.21	1	0.13	ug/L	J	J	15				N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Metals	7440-39-3	Barium	22	5	0.15	ug/L	B						N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Metals	7440-43-9	Cadmium	0.17	0.5	0.17	ug/L	U	U					N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Metals	7440-47-3	Chromium	1.3	2	1.3	ug/L	U	U					N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Metals	7440-48-4	Cobalt	0.61	1	0.016	ug/L	J	J	15				N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Metals	7440-50-8	Copper	1.4	2	0.43	ug/L	J	J	15				N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Metals	7439-89-6	Iron	893	50	5.5	ug/L							N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Metals	7439-92-1	Lead	0.21	2	0.18	ug/L	J	J	15				N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Metals	7439-95-4	Magnesium	1420	100	4.8	ug/L							N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Metals	7439-96-5	Manganese	28.2	2	0.39	ug/L							N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Metals	7439-97-6	Mercury	0.034	0.2	0.034	ug/L	U	U					N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Metals	7439-98-7	Molybdenum	5.8	5	0.12	ug/L							N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Metals	7440-02-0	Nickel	3.8	1	0.15	ug/L	B						N	1

Attachment 1

Summary of Analytical Results
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Metals	7440-24-6	Strontium	60.7	2	0.17	ug/L		J	19	12			N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Metals	7440-32-6	Titanium	0.87	2	0.29	ug/L	J	J	15				N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Metals	7440-66-6	Zinc	11.7	10	1.8	ug/L							N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Perchlorate	14797-73-0	Perchlorate	0.0612	0.2	0.0612	ug/L	U	U					Y	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.042	0.2	0.042	ug/L	U	U					N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Explosives	99-65-0	1,3-Dinitrobenzene	0.028	0.2	0.028	ug/L	U	U					N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.05	0.2	0.05	ug/L	U	U					N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Explosives	121-14-2	2,4-Dinitrotoluene	0.022	0.2	0.022	ug/L	U	U					N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Explosives	606-20-2	2,6-Dinitrotoluene	0.04	0.2	0.04	ug/L	U	U					N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.044	0.2	0.044	ug/L	U	U					N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.034	0.2	0.034	ug/L	U	U					N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Explosives	2691-41-0	HMX	0.021	0.4	0.021	ug/L	U	UJ	11A				N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Explosives	99-08-1	3-Nitrotoluene	0.11	0.4	0.11	ug/L	U	U					N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Explosives	98-95-3	Nitrobenzene	0.017	0.2	0.017	ug/L	U	U					N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Explosives	55-63-0	Nitroglycerine	0.2	20	0.2	ug/L	U	U					N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Explosives	88-72-2	2-Nitrotoluene	0.076	0.4	0.076	ug/L	U	U					N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Explosives	78-11-5	PETN	0.004	0.051	0.004	ug/L	U	U					N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Explosives	99-99-0	4-Nitrotoluene	0.079	0.4	0.079	ug/L	U	U					N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Explosives	121-82-4	RDX	0.08	0.4	0.08	ug/L	U	U					N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Explosives	479-45-8	Tetryl	0.035	0.4	0.035	ug/L	U	U					N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Metals	7429-90-5	Aluminum	22.3	100	5.5	ug/L	J	U	06A				N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Metals	7440-36-0	Antimony	0.13	1	0.13	ug/L	U	U					N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Metals	7440-39-3	Barium	35.9	5	0.15	ug/L	B						N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Metals	7440-43-9	Cadmium	0.17	0.5	0.17	ug/L	U	U					N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Metals	7440-47-3	Chromium	1.3	2	1.3	ug/L	U	U					N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Metals	7440-48-4	Cobalt	1.2	1	0.016	ug/L							N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Metals	7440-50-8	Copper	2.7	2	0.43	ug/L							N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Metals	7439-89-6	Iron	32.3	50	5.5	ug/L	J	J	15				N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Metals	7439-92-1	Lead	0.38	2	0.18	ug/L	J	J	15				N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Metals	7439-95-4	Magnesium	4180	100	4.8	ug/L							N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Metals	7439-96-5	Manganese	310	2	0.39	ug/L							N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Metals	7439-97-6	Mercury	0.034	0.2	0.034	ug/L	U	U					N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Metals	7439-98-7	Molybdenum	0.18	5	0.12	ug/L	J	J	15				N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Metals	7440-02-0	Nickel	3.7	1	0.15	ug/L	B						N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Metals	7440-24-6	Strontium	83.5	2	0.17	ug/L		J	19	12			N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Metals	7440-32-6	Titanium	0.97	2	0.29	ug/L	J	J	15				N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Metals	7440-66-6	Zinc	10.4	10	1.8	ug/L							N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Perchlorate	14797-73-0	Perchlorate	0.0612	0.2	0.0612	ug/L	U	U					Y	1
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.012	0.04	0.012	mg/kg	U	UJ	08A	11A			N	1
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Explosives	99-65-0	1,3-Dinitrobenzene	0.002	0.04	0.002	mg/kg	U	UJ	08A				N	1
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.008	0.04	0.008	mg/kg	U	U					N	1
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Explosives	121-14-2	2,4-Dinitrotoluene	0.014	0.04	0.014	mg/kg	U	UJ	08A				N	1
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Explosives	606-20-2	2,6-Dinitrotoluene	0.007	0.04	0.007	mg/kg	U	U					N	1
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.01	0.04	0.01	mg/kg	U	UJ	08A				N	1
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.006	0.04	0.006	mg/kg	U	UJ	08B	08A			N	1
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Explosives	2691-41-0	HMX	0.012	0.08	0.012	mg/kg	U	U					N	1
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Explosives	99-08-1	3-Nitrotoluene	0.022	0.08	0.022	mg/kg	U	U					N	1
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Explosives	98-95-3	Nitrobenzene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Explosives	55-63-0	Nitroglycerine	0.04	4	0.04	mg/kg	U	U					N	1
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Explosives	88-72-2	2-Nitrotoluene	0.009	0.08	0.009	mg/kg	U	UJ	08A				N	1
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Explosives	78-11-5	PETN	0.041	0.2	0.041	mg/kg	U	U					N	1
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Explosives	99-99-0	4-Nitrotoluene	0.036	0.08	0.036	mg/kg	U	U					N	1
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Explosives	121-82-4	RDX	0.071	0.08	0.071	mg/kg	U	U					N	1
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Explosives	479-45-8	Tetryl	0.004	0.08	0.004	mg/kg	U	U					N	1
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	19500	81.3	2.2	mg/kg	D						N	10
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.19	0.81	0.14	mg/kg	JND	J	15	08A			N	10
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	154	4.1	0.19	mg/kg	DB						N	10
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.23	0.41	0.11	mg/kg	JD	J	15				N	10
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	25.4	1.6	0.23	mg/kg	EDB	J	19	13			N	10
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	14.4	0.41	0.014	mg/kg	D						N	10
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	14.5	1.6	0.16	mg/kg	D						N	10

200-1e

Attachment 1

Summary of Analytical Results
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	25200	40.7	2.6	mg/kg	D						N	10
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	14.3	1.6	0.064	mg/kg	D						N	10
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	3350	81.3	1.5	mg/kg	D						N	10
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	833	1.6	0.046	mg/kg	DB						N	10
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.029	0.032	0.0093	mg/kg	J	J	15				N	1
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.26	4.1	0.24	mg/kg	JD	J	15				N	10
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	13.5	0.81	0.072	mg/kg	D						N	10
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	17.7	1.6	0.075	mg/kg	D	J	19	12			N	10
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	800	1.6	0.24	mg/kg	D						N	10
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	44.6	8.1	0.4	mg/kg	EDB	J	19	13			N	10
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.012	0.04	0.012	mg/kg	U	UJ	11A				N	1
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Explosives	99-65-0	1,3-Dinitrobenzene	0.002	0.04	0.002	mg/kg	U	U					N	1
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.008	0.04	0.008	mg/kg	U	U					N	1
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Explosives	121-14-2	2,4-Dinitrotoluene	0.014	0.04	0.014	mg/kg	U	U					N	1
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Explosives	606-20-2	2,6-Dinitrotoluene	0.007	0.04	0.007	mg/kg	U	U					N	1
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.01	0.04	0.01	mg/kg	U	U					N	1
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Explosives	2691-41-0	HMX	0.012	0.08	0.012	mg/kg	U	U					N	1
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Explosives	99-08-1	3-Nitrotoluene	0.022	0.08	0.022	mg/kg	U	U					N	1
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Explosives	98-95-3	Nitrobenzene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Explosives	55-63-0	Nitroglycerine	0.04	4	0.04	mg/kg	U	U					N	1
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Explosives	88-72-2	2-Nitrotoluene	0.009	0.08	0.009	mg/kg	U	U					N	1
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Explosives	78-11-5	PETN	0.041	0.2	0.041	mg/kg	U	U					N	1
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Explosives	99-99-0	4-Nitrotoluene	0.036	0.08	0.036	mg/kg	U	U					N	1
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Explosives	121-82-4	RDX	0.071	0.08	0.071	mg/kg	U	U					N	1
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Explosives	479-45-8	Tetryl	0.004	0.08	0.004	mg/kg	U	U					N	1
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Metals	7429-90-5	Aluminum	14400	81.3	2.2	mg/kg	D						N	10
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-36-0	Antimony	0.15	0.81	0.14	mg/kg	JND	J	15				N	10
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-39-3	Barium	202	4.1	0.19	mg/kg	DB						N	10
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-43-9	Cadmium	0.2	0.41	0.11	mg/kg	JD	J	15				N	10
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-47-3	Chromium	23.3	1.6	0.23	mg/kg	EDB						N	10
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-48-4	Cobalt	21.2	0.41	0.014	mg/kg	D						N	10
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-50-8	Copper	19.6	1.6	0.16	mg/kg	D						N	10
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Metals	7439-89-6	Iron	32500	40.7	2.6	mg/kg	D						N	10
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Metals	7439-92-1	Lead	15.7	1.6	0.064	mg/kg	D						N	10
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Metals	7439-95-4	Magnesium	2390	81.3	1.5	mg/kg	D						N	10
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Metals	7439-96-5	Manganese	794	1.6	0.046	mg/kg	DB						N	10
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Metals	7439-97-6	Mercury	0.038	0.025	0.0073	mg/kg							N	1
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Metals	7439-98-7	Molybdenum	0.56	4.1	0.24	mg/kg	JD	J	15				N	10
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-02-0	Nickel	13.3	0.81	0.072	mg/kg	D						N	10
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-24-6	Strontium	30.1	1.6	0.075	mg/kg	D	J	19	12			N	10
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-32-6	Titanium	434	1.6	0.24	mg/kg	D						N	10
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-66-6	Zinc	64.4	8.1	0.4	mg/kg	EDB						N	10
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.044	0.21	0.044	ug/L	U	UJ	11A				N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Explosives	99-65-0	1,3-Dinitrobenzene	0.029	0.21	0.029	ug/L	U	U					N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.052	0.21	0.052	ug/L	U	U					N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Explosives	121-14-2	2,4-Dinitrotoluene	0.023	0.21	0.023	ug/L	U	U					N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Explosives	606-20-2	2,6-Dinitrotoluene	0.042	0.21	0.042	ug/L	U	U					N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.045	0.21	0.045	ug/L	U	U					N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.036	0.21	0.036	ug/L	U	U					N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Explosives	2691-41-0	HMX	0.022	0.42	0.022	ug/L	U	UJ	11A				N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Explosives	99-08-1	3-Nitrotoluene	0.11	0.42	0.11	ug/L	U	U					N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Explosives	98-95-3	Nitrobenzene	0.018	0.21	0.018	ug/L	U	U					N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Explosives	55-63-0	Nitroglycerine	0.21	21	0.21	ug/L	U	U					N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Explosives	88-72-2	2-Nitrotoluene	0.079	0.42	0.079	ug/L	U	U					N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Explosives	78-11-5	PETN	0.081	1.1	0.081	ug/L	U	U					N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Explosives	99-99-0	4-Nitrotoluene	0.082	0.42	0.082	ug/L	U	U					N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Explosives	121-82-4	RDX	0.084	0.42	0.084	ug/L	U	U					N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Explosives	479-45-8	Tetryl	0.036	0.42	0.036	ug/L	U	U					N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Metals	7429-90-5	Aluminum	5.7	100	5.5	ug/L	J	U	06A				N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Metals	7440-36-0	Antimony	0.13	1	0.13	ug/L	U	U					N	1

Attachment 1

Summary of Analytical Results
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Metals	7440-39-3	Barium	4	5	0.15	ug/L	JB	J	15				N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Metals	7440-43-9	Cadmium	0.17	0.5	0.17	ug/L	U	U					N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Metals	7440-47-3	Chromium	1.3	2	1.3	ug/L	U	U					N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Metals	7440-48-4	Cobalt	0.027	1	0.016	ug/L	JB	U	06B	15			N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Metals	7440-50-8	Copper	1	2	0.43	ug/L	J	J	15				N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Metals	7439-89-6	Iron	22.9	50	5.5	ug/L	J	J	15				N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Metals	7439-92-1	Lead	0.81	2	0.18	ug/L	J	J	15				N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Metals	7439-95-4	Magnesium	1140	100	4.8	ug/L							N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Metals	7439-96-5	Manganese	3	2	0.39	ug/L							N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Metals	7439-97-6	Mercury	0.034	0.2	0.034	ug/L	U	U					N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Metals	7439-98-7	Molybdenum	0.57	5	0.12	ug/L	J	J	15				N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Metals	7440-02-0	Nickel	0.9	1	0.15	ug/L	J	J	15				N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Metals	7440-24-6	Strontium	41	2	0.17	ug/L		J	19	12			N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Metals	7440-32-6	Titanium	1	2	0.29	ug/L	J	J	15				N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Metals	7440-66-6	Zinc	10.6	10	1.8	ug/L		U	06A				N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Perchlorate	14797-73-0	Perchlorate	0.0612	0.2	0.0612	ug/L	U	UJ	19	05B			Y	1
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.012	0.04	0.012	mg/kg	U	U					N	1
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Explosives	99-65-0	1,3-Dinitrobenzene	0.002	0.04	0.002	mg/kg	U	U					N	1
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.008	0.04	0.008	mg/kg	U	U					N	1
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Explosives	121-14-2	2,4-Dinitrotoluene	0.014	0.04	0.014	mg/kg	U	U					N	1
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Explosives	606-20-2	2,6-Dinitrotoluene	0.007	0.04	0.007	mg/kg	U	U					N	1
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.01	0.04	0.01	mg/kg	U	U					N	1
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Explosives	2691-41-0	HMX	0.012	0.08	0.012	mg/kg	U	U					N	1
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Explosives	99-08-1	3-Nitrotoluene	0.022	0.08	0.022	mg/kg	U	U					N	1
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Explosives	98-95-3	Nitrobenzene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Explosives	55-63-0	Nitroglycerine	0.04	4	0.04	mg/kg	U	U					N	1
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Explosives	88-72-2	2-Nitrotoluene	0.009	0.08	0.009	mg/kg	U	U					N	1
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Explosives	78-11-5	PETN	0.041	0.2	0.041	mg/kg	U	U					N	1
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Explosives	99-99-0	4-Nitrotoluene	0.036	0.08	0.036	mg/kg	U	U					N	1
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Explosives	121-82-4	RDX	0.071	0.08	0.071	mg/kg	U	U					N	1
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Explosives	479-45-8	Tetryl	0.004	0.08	0.004	mg/kg	U	U					N	1
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	27800	80	2.2	mg/kg	D						N	10
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.27	0.8	0.14	mg/kg	JD	J	15				N	10
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	168	4	0.18	mg/kg	D						N	10
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.21	0.4	0.11	mg/kg	JD	J	15				N	10
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	40.6	1.6	0.22	mg/kg	DB						N	10
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	17.9	0.8	0.014	mg/kg	DB						N	10
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	36.4	1.6	0.16	mg/kg	D						N	10
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	43300	40	2.6	mg/kg	D						N	10
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	16.5	1.6	0.063	mg/kg	D						N	10
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	4820	80	1.4	mg/kg	D						N	10
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	529	1.6	0.046	mg/kg	D						N	10
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.031	0.031	0.009	mg/kg		U	06A				N	1
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.73	4	0.23	mg/kg	JD	J	15				N	10
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	26.8	0.8	0.07	mg/kg	D						N	10
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	27.8	1.6	0.074	mg/kg	D	J	12				N	10
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	320	1.6	0.24	mg/kg	D						N	10
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	75.1	8	0.39	mg/kg	DB						N	10
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.012	0.04	0.012	mg/kg	U	U					N	1
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Explosives	99-65-0	1,3-Dinitrobenzene	0.002	0.04	0.002	mg/kg	U	U					N	1
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.008	0.04	0.008	mg/kg	U	U					N	1
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Explosives	121-14-2	2,4-Dinitrotoluene	0.014	0.04	0.014	mg/kg	U	U					N	1
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Explosives	606-20-2	2,6-Dinitrotoluene	0.021	0.04	0.007	mg/kg	J	J	15				N	1
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.01	0.04	0.01	mg/kg	U	U					N	1
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Explosives	2691-41-0	HMX	0.012	0.08	0.012	mg/kg	U	U					N	1
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Explosives	99-08-1	3-Nitrotoluene	0.022	0.08	0.022	mg/kg	U	U					N	1
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Explosives	98-95-3	Nitrobenzene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Explosives	55-63-0	Nitroglycerine	0.04	4	0.04	mg/kg	U	U					N	1
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Explosives	88-72-2	2-Nitrotoluene	0.009	0.08	0.009	mg/kg	U	U					N	1

Attachment 1

Summary of Analytical Results
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Explosives	78-11-5	PETN	0.042	0.2	0.042	mg/kg	U	U					N	1
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Explosives	99-99-0	4-Nitrotoluene	0.036	0.08	0.036	mg/kg	U	U					N	1
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Explosives	121-82-4	RDX	0.071	0.08	0.071	mg/kg	U	U					N	1
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Explosives	479-45-8	Tetryl	0.004	0.08	0.004	mg/kg	U	U					N	1
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	33300	78.7	2.1	mg/kg	D						N	10
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.26	0.79	0.13	mg/kg	JD	J	15				N	10
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	257	3.9	0.18	mg/kg	D						N	10
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.21	0.39	0.11	mg/kg	JD	J	15				N	10
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	73.6	1.6	0.22	mg/kg	DB						N	10
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	15.1	0.79	0.013	mg/kg	DB						N	10
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	43.7	1.6	0.16	mg/kg	D						N	10
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	44100	39.4	2.5	mg/kg	D						N	10
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	15.4	1.6	0.062	mg/kg	D						N	10
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	4950	78.7	1.4	mg/kg	D						N	10
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	559	1.6	0.045	mg/kg	D						N	10
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.033	0.025	0.0072	mg/kg		U	06A				N	1
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	5.7	3.9	0.23	mg/kg	D						N	10
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	47.9	0.79	0.069	mg/kg	D						N	10
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	55	1.6	0.072	mg/kg	D	J	12				N	10
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	262	1.6	0.24	mg/kg	D						N	10
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	88.2	7.9	0.39	mg/kg	DB						N	10
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.012	0.04	0.012	mg/kg	U	U					N	1
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Explosives	99-65-0	1,3-Dinitrobenzene	0.002	0.04	0.002	mg/kg	U	U					N	1
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.008	0.04	0.008	mg/kg	U	U					N	1
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Explosives	121-14-2	2,4-Dinitrotoluene	0.014	0.04	0.014	mg/kg	U	U					N	1
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Explosives	606-20-2	2,6-Dinitrotoluene	0.02	0.04	0.007	mg/kg	J	J	15				N	1
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.01	0.04	0.01	mg/kg	U	U					N	1
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Explosives	2691-41-0	HMX	0.012	0.08	0.012	mg/kg	U	U					N	1
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Explosives	99-08-1	3-Nitrotoluene	0.022	0.08	0.022	mg/kg	U	U					N	1
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Explosives	98-95-3	Nitrobenzene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Explosives	55-63-0	Nitroglycerine	0.04	4	0.04	mg/kg	U	U					N	1
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Explosives	88-72-2	2-Nitrotoluene	0.009	0.08	0.009	mg/kg	U	U					N	1
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Explosives	78-11-5	PETN	0.042	0.2	0.042	mg/kg	U	U					N	1
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Explosives	99-99-0	4-Nitrotoluene	0.036	0.08	0.036	mg/kg	U	U					N	1
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Explosives	121-82-4	RDX	0.071	0.08	0.071	mg/kg	U	U					N	1
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Explosives	479-45-8	Tetryl	0.004	0.08	0.004	mg/kg	U	U					N	1
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	30300	78.1	2.1	mg/kg	D						N	10
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.26	0.78	0.13	mg/kg	JD	J	15				N	10
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	258	3.9	0.18	mg/kg	D						N	10
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.18	0.39	0.11	mg/kg	JD	J	15				N	10
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	36.4	1.6	0.22	mg/kg	DB						N	10
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	19	0.78	0.013	mg/kg	DB						N	10
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	40.5	1.6	0.16	mg/kg	D						N	10
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	46000	39.1	2.5	mg/kg	D						N	10
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	17	1.6	0.062	mg/kg	D						N	10
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	3980	78.1	1.4	mg/kg	D						N	10
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	1100	1.6	0.045	mg/kg	D						N	10
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.045	0.024	0.0068	mg/kg		U	06A				N	1
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.86	3.9	0.23	mg/kg	JD	J	15				N	10
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	20.5	0.78	0.069	mg/kg	D						N	10
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	35.1	1.6	0.072	mg/kg	D	J	12				N	10
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	332	1.6	0.23	mg/kg	D						N	10
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	72.6	7.8	0.38	mg/kg	DB						N	10
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.012	0.04	0.012	mg/kg	U	U					N	1
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Explosives	99-65-0	1,3-Dinitrobenzene	0.002	0.04	0.002	mg/kg	U	U					N	1
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.008	0.04	0.008	mg/kg	U	U					N	1
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Explosives	121-14-2	2,4-Dinitrotoluene	0.014	0.04	0.014	mg/kg	U	U					N	1
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Explosives	606-20-2	2,6-Dinitrotoluene	0.007	0.04	0.007	mg/kg	U	U					N	1
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.01	0.04	0.01	mg/kg	U	U					N	1
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.006	0.04	0.006	mg/kg	U	U					N	1

Attachment 1

Summary of Analytical Results
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Explosives	2691-41-0	HMX	0.012	0.08	0.012	mg/kg	U	U					N	1
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Explosives	99-08-1	3-Nitrotoluene	0.022	0.08	0.022	mg/kg	U	U					N	1
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Explosives	98-95-3	Nitrobenzene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Explosives	55-63-0	Nitroglycerine	0.04	4	0.04	mg/kg	U	U					N	1
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Explosives	88-72-2	2-Nitrotoluene	0.009	0.08	0.009	mg/kg	U	U					N	1
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Explosives	78-11-5	PETN	0.042	0.2	0.042	mg/kg	U	U					N	1
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Explosives	99-99-0	4-Nitrotoluene	0.036	0.08	0.036	mg/kg	U	U					N	1
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Explosives	121-82-4	RDX	0.071	0.08	0.071	mg/kg	U	U					N	1
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Explosives	479-45-8	Tetryl	0.004	0.08	0.004	mg/kg	U	U					N	1
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	26900	83.3	2.2	mg/kg	D						N	10
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.18	0.83	0.14	mg/kg	JD	J	15				N	10
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	200	4.2	0.19	mg/kg	D						N	10
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.19	0.42	0.12	mg/kg	JD	J	15				N	10
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	31.2	1.7	0.23	mg/kg	DB						N	10
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	20.1	0.83	0.014	mg/kg	DB						N	10
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	43.2	1.7	0.17	mg/kg	D						N	10
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	45000	41.7	2.7	mg/kg	D						N	10
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	13.5	1.7	0.066	mg/kg	D						N	10
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	3710	83.3	1.5	mg/kg	D						N	10
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	793	1.7	0.048	mg/kg	D						N	10
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.027	0.03	0.0086	mg/kg	J	U	06A				N	1
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.71	4.2	0.24	mg/kg	JD	J	15				N	10
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	16.4	0.83	0.073	mg/kg	D						N	10
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	33.5	1.7	0.077	mg/kg	D	J	12				N	10
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	314	1.7	0.25	mg/kg	D						N	10
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	54.8	8.3	0.41	mg/kg	DB						N	10
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.012	0.04	0.012	mg/kg	U	U					N	1
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Explosives	99-65-0	1,3-Dinitrobenzene	0.002	0.04	0.002	mg/kg	U	U					N	1
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.008	0.04	0.008	mg/kg	U	U					N	1
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Explosives	121-14-2	2,4-Dinitrotoluene	0.014	0.04	0.014	mg/kg	U	U					N	1
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Explosives	606-20-2	2,6-Dinitrotoluene	0.007	0.04	0.007	mg/kg	U	U					N	1
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.01	0.04	0.01	mg/kg	U	U					N	1
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Explosives	2691-41-0	HMX	0.012	0.08	0.012	mg/kg	U	U					N	1
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Explosives	99-08-1	3-Nitrotoluene	0.022	0.08	0.022	mg/kg	U	U					N	1
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Explosives	98-95-3	Nitrobenzene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Explosives	55-63-0	Nitroglycerine	0.04	4	0.04	mg/kg	U	U					N	1
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Explosives	88-72-2	2-Nitrotoluene	0.009	0.08	0.009	mg/kg	U	U					N	1
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Explosives	78-11-5	PETN	0.042	0.2	0.042	mg/kg	U	U					N	1
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Explosives	99-99-0	4-Nitrotoluene	0.036	0.08	0.036	mg/kg	U	U					N	1
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Explosives	121-82-4	RDX	0.071	0.08	0.071	mg/kg	U	U					N	1
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Explosives	479-45-8	Tetryl	0.004	0.08	0.004	mg/kg	U	U					N	1
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Metals	7429-90-5	Aluminum	25100	81.3	2.2	mg/kg	D						N	10
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-36-0	Antimony	0.27	0.81	0.14	mg/kg	JND	J	15	08A			N	10
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-39-3	Barium	151	4.1	0.19	mg/kg	NDB						N	10
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-43-9	Cadmium	0.23	0.41	0.11	mg/kg	JD	J	15				N	10
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-47-3	Chromium	35	1.6	0.23	mg/kg	EDB	J	13				N	10
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-48-4	Cobalt	18.4	0.81	0.014	mg/kg	D						N	10
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-50-8	Copper	30.2	1.6	0.16	mg/kg	DB						N	10
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Metals	7439-89-6	Iron	42800	40.7	2.6	mg/kg	DB						N	10
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Metals	7439-92-1	Lead	17.5	1.6	0.064	mg/kg	D						N	10
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Metals	7439-95-4	Magnesium	3830	81.3	1.5	mg/kg	DB						N	10
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Metals	7439-96-5	Manganese	712	1.6	0.046	mg/kg	DB						N	10
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Metals	7439-97-6	Mercury	0.029	0.025	0.0072	mg/kg		U	06A				N	1
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Metals	7439-98-7	Molybdenum	0.62	4.1	0.24	mg/kg	JND	J	15				N	10
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-02-0	Nickel	20.4	0.81	0.072	mg/kg	D						N	10
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-24-6	Strontium	25.8	1.6	0.075	mg/kg	D	J	12				N	10
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-32-6	Titanium	318	1.6	0.24	mg/kg	ND	J	08A				N	10
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-66-6	Zinc	62.5	8.1	0.4	mg/kg	EDB	J	13				N	10
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.043	0.21	0.043	ug/L	U	UJ	11A				N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Explosives	99-65-0	1,3-Dinitrobenzene	0.029	0.21	0.029	ug/L	U	U					N	1

Attachment 1

Summary of Analytical Results
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.051	0.21	0.051	ug/L	U	U					N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Explosives	121-14-2	2,4-Dinitrotoluene	0.022	0.21	0.022	ug/L	U	U					N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Explosives	606-20-2	2,6-Dinitrotoluene	0.041	0.21	0.041	ug/L	U	U					N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.045	0.21	0.045	ug/L	U	U					N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.035	0.21	0.035	ug/L	U	U					N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Explosives	2691-41-0	HMX	0.021	0.41	0.021	ug/L	U	UJ	11A				N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Explosives	99-08-1	3-Nitrotoluene	0.11	0.41	0.11	ug/L	U	U					N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Explosives	98-95-3	Nitrobenzene	0.018	0.21	0.018	ug/L	U	U					N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Explosives	55-63-0	Nitroglycerine	0.21	21	0.21	ug/L	U	U					N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Explosives	88-72-2	2-Nitrotoluene	0.078	0.41	0.078	ug/L	U	U					N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Explosives	78-11-5	PETN	0.079	1	0.079	ug/L	U	U					N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Explosives	99-99-0	4-Nitrotoluene	0.08	0.41	0.08	ug/L	U	U					N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Explosives	121-82-4	RDX	0.082	0.41	0.082	ug/L	U	U					N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Explosives	479-45-8	Tetryl	0.036	0.41	0.036	ug/L	U	U					N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Metals	7429-90-5	Aluminum	5.5	100	5.5	ug/L	U	U					N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Metals	7440-36-0	Antimony	0.13	1	0.13	ug/L	U	U					N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Metals	7440-39-3	Barium	14.7	5	0.15	ug/L	B						N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Metals	7440-43-9	Cadmium	0.17	0.5	0.17	ug/L	U	U					N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Metals	7440-47-3	Chromium	1.3	2	1.3	ug/L	U	U					N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Metals	7440-48-4	Cobalt	0.018	1	0.016	ug/L	JB	J	15				N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Metals	7440-50-8	Copper	4	2	0.43	ug/L							N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Metals	7439-89-6	Iron	28.7	50	5.5	ug/L	J	J	15				N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Metals	7439-92-1	Lead	0.41	2	0.18	ug/L	J	J	15				N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Metals	7439-95-4	Magnesium	1760	100	4.8	ug/L							N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Metals	7439-96-5	Manganese	16.2	2	0.39	ug/L							N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Metals	7439-97-6	Mercury	0.034	0.2	0.034	ug/L	U	U					N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Metals	7439-98-7	Molybdenum	0.67	5	0.12	ug/L	J	J	15				N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Metals	7440-02-0	Nickel	1.1	1	0.15	ug/L							N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Metals	7440-24-6	Strontium	63.3	2	0.17	ug/L		J	19	12			N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Metals	7440-32-6	Titanium	1	2	0.29	ug/L	J	J	15				N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Metals	7440-66-6	Zinc	18.4	10	1.8	ug/L		U	06A				N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Perchlorate	14797-73-0	Perchlorate	0.0612	0.2	0.0612	ug/L	U	UJ	19	05B			Y	1
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.012	0.04	0.012	mg/kg	U	UJ	11A				N	1
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Explosives	99-65-0	1,3-Dinitrobenzene	0.002	0.04	0.002	mg/kg	U	U					N	1
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.008	0.04	0.008	mg/kg	U	U					N	1
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Explosives	121-14-2	2,4-Dinitrotoluene	0.014	0.04	0.014	mg/kg	U	U					N	1
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Explosives	606-20-2	2,6-Dinitrotoluene	0.007	0.04	0.007	mg/kg	U	U					N	1
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.01	0.04	0.01	mg/kg	U	U					N	1
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Explosives	2691-41-0	HMX	0.012	0.08	0.012	mg/kg	U	U					N	1
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Explosives	99-08-1	3-Nitrotoluene	0.022	0.08	0.022	mg/kg	U	U					N	1
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Explosives	98-95-3	Nitrobenzene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Explosives	55-63-0	Nitroglycerine	0.04	4	0.04	mg/kg	U	U					N	1
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Explosives	88-72-2	2-Nitrotoluene	0.009	0.08	0.009	mg/kg	U	U					N	1
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Explosives	78-11-5	PETN	0.042	0.2	0.042	mg/kg	U	U					N	1
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Explosives	99-99-0	4-Nitrotoluene	0.036	0.08	0.036	mg/kg	U	U					N	1
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Explosives	121-82-4	RDX	0.071	0.08	0.071	mg/kg	U	U					N	1
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Explosives	479-45-8	Tetryl	0.004	0.08	0.004	mg/kg	U	U					N	1
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	50000	80	2.2	mg/kg	ED						N	10
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.14	0.8	0.14	mg/kg	UND	U					N	10
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	183	4	0.18	mg/kg	NDB						N	10
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.68	0.4	0.11	mg/kg	D						N	10
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	147	1.6	0.22	mg/kg	EDB						N	10
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	65.3	0.4	0.014	mg/kg	ED						N	10
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	133	3.2	0.32	mg/kg	NDB						N	20
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	74200	40	2.6	mg/kg	ED						N	10
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	3.9	1.6	0.063	mg/kg	D						N	10
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	13200	80	1.4	mg/kg	D						N	10
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	2300	1.6	0.046	mg/kg	ED						N	10
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.023	0.029	0.0085	mg/kg	J	J	15				N	1
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.24	4	0.23	mg/kg	JND	J	15				N	10

Attachment 1

Summary of Analytical Results
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	73.9	0.8	0.07	mg/kg	NED						N	10
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	78.4	1.6	0.074	mg/kg	D	J	19	12			N	10
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	4900	3.2	0.48	mg/kg	D						N	20
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	73.7	8	0.39	mg/kg	EDB						N	10
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.012	0.04	0.012	mg/kg	U	UJ	11A				N	1
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Explosives	99-65-0	1,3-Dinitrobenzene	0.002	0.04	0.002	mg/kg	U	U					N	1
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.008	0.04	0.008	mg/kg	U	U					N	1
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Explosives	121-14-2	2,4-Dinitrotoluene	0.014	0.04	0.014	mg/kg	U	U					N	1
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Explosives	606-20-2	2,6-Dinitrotoluene	0.007	0.04	0.007	mg/kg	U	U					N	1
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.01	0.04	0.01	mg/kg	U	U					N	1
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Explosives	2691-41-0	HMX	0.012	0.08	0.012	mg/kg	U	U					N	1
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Explosives	99-08-1	3-Nitrotoluene	0.022	0.08	0.022	mg/kg	U	U					N	1
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Explosives	98-95-3	Nitrobenzene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Explosives	55-63-0	Nitroglycerine	0.04	4	0.04	mg/kg	U	U					N	1
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Explosives	88-72-2	2-Nitrotoluene	0.009	0.08	0.009	mg/kg	U	U					N	1
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Explosives	78-11-5	PETN	0.042	0.2	0.042	mg/kg	U	U					N	1
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Explosives	99-99-0	4-Nitrotoluene	0.036	0.08	0.036	mg/kg	U	U					N	1
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Explosives	121-82-4	RDX	0.071	0.08	0.071	mg/kg	U	U					N	1
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Explosives	479-45-8	Tetryl	0.004	0.08	0.004	mg/kg	U	U					N	1
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	51300	89.3	2.4	mg/kg	ED						N	10
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.15	0.89	0.15	mg/kg	UND	U					N	10
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	172	4.5	0.21	mg/kg	NDB						N	10
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	1	0.45	0.12	mg/kg	D						N	10
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	175	1.8	0.25	mg/kg	EDB						N	10
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	62.7	0.45	0.015	mg/kg	ED						N	10
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	156	3.6	0.36	mg/kg	NDB						N	20
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	89200	44.6	2.9	mg/kg	ED						N	10
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	5.7	1.8	0.071	mg/kg	D						N	10
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	11100	89.3	1.6	mg/kg	D						N	10
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	2260	1.8	0.051	mg/kg	ED						N	10
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.023	0.031	0.0091	mg/kg	J	J	15				N	1
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.4	4.5	0.26	mg/kg	JND	J	15				N	10
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	73.5	0.89	0.079	mg/kg	NED						N	10
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	50.4	1.8	0.082	mg/kg	D	J	19	12			N	10
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	7490	3.6	0.54	mg/kg	D						N	20
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	95.8	8.9	0.44	mg/kg	EDB						N	10
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.012	0.04	0.012	mg/kg	U	UJ	11A				N	1
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Explosives	99-65-0	1,3-Dinitrobenzene	0.002	0.04	0.002	mg/kg	U	U					N	1
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.008	0.04	0.008	mg/kg	U	U					N	1
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Explosives	121-14-2	2,4-Dinitrotoluene	0.014	0.04	0.014	mg/kg	U	U					N	1
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Explosives	606-20-2	2,6-Dinitrotoluene	0.007	0.04	0.007	mg/kg	U	U					N	1
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.01	0.04	0.01	mg/kg	U	U					N	1
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Explosives	2691-41-0	HMX	0.012	0.08	0.012	mg/kg	U	U					N	1
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Explosives	99-08-1	3-Nitrotoluene	0.022	0.08	0.022	mg/kg	U	U					N	1
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Explosives	98-95-3	Nitrobenzene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Explosives	55-63-0	Nitroglycerine	0.04	4	0.04	mg/kg	U	U					N	1
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Explosives	88-72-2	2-Nitrotoluene	0.009	0.08	0.009	mg/kg	U	U					N	1
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Explosives	78-11-5	PETN	0.042	0.2	0.042	mg/kg	U	U					N	1
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Explosives	99-99-0	4-Nitrotoluene	0.036	0.08	0.036	mg/kg	U	U					N	1
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Explosives	121-82-4	RDX	0.071	0.08	0.071	mg/kg	U	U					N	1
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Explosives	479-45-8	Tetryl	0.004	0.08	0.004	mg/kg	U	U					N	1
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	49700	84.7	2.3	mg/kg	ED						N	10
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.14	0.85	0.14	mg/kg	UND	U					N	10
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	169	4.2	0.19	mg/kg	NDB						N	10
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.8	0.42	0.12	mg/kg	D						N	10
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	147	1.7	0.24	mg/kg	EDB						N	10
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	62	0.85	0.014	mg/kg	ED						N	10
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	131	3.4	0.34	mg/kg	NDB						N	20
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	73600	42.4	2.7	mg/kg	ED						N	10

Attachment 1

Summary of Analytical Results
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	4.2	1.7	0.067	mg/kg	D						N	10
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	13000	84.7	1.5	mg/kg	D						N	10
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	2090	1.7	0.048	mg/kg	ED						N	10
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.021	0.032	0.0094	mg/kg	J	J	15				N	1
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.31	4.2	0.25	mg/kg	JND						N	10
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	71.9	0.85	0.075	mg/kg	NED						N	10
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	86.3	1.7	0.078	mg/kg	D	J	19	12			N	10
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	4900	3.4	0.51	mg/kg	D						N	20
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	75.4	8.5	0.42	mg/kg	EDB						N	10
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.012	0.04	0.012	mg/kg	U	UJ	11A				N	1
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Explosives	99-65-0	1,3-Dinitrobenzene	0.002	0.04	0.002	mg/kg	U	U					N	1
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.008	0.04	0.008	mg/kg	U	U					N	1
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Explosives	121-14-2	2,4-Dinitrotoluene	0.014	0.04	0.014	mg/kg	U	U					N	1
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Explosives	606-20-2	2,6-Dinitrotoluene	0.007	0.04	0.007	mg/kg	U	U					N	1
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.01	0.04	0.01	mg/kg	U	U					N	1
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Explosives	2691-41-0	HMX	0.012	0.08	0.012	mg/kg	U	U					N	1
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Explosives	99-08-1	3-Nitrotoluene	0.022	0.08	0.022	mg/kg	U	U					N	1
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Explosives	98-95-3	Nitrobenzene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Explosives	55-63-0	Nitroglycerine	0.04	4	0.04	mg/kg	U	U					N	1
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Explosives	88-72-2	2-Nitrotoluene	0.009	0.08	0.009	mg/kg	U	U					N	1
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Explosives	78-11-5	PETN	0.042	0.2	0.042	mg/kg	U	U					N	1
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Explosives	99-99-0	4-Nitrotoluene	0.036	0.08	0.036	mg/kg	U	U					N	1
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Explosives	121-82-4	RDX	0.071	0.08	0.071	mg/kg	U	U					N	1
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Explosives	479-45-8	Tetryl	0.004	0.08	0.004	mg/kg	U	U					N	1
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Metals	7429-90-5	Aluminum	53200	80	2.2	mg/kg	ED						N	10
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.14	0.8	0.14	mg/kg	UND	U					N	10
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Metals	7440-39-3	Barium	182	4	0.18	mg/kg	NDB						N	10
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.74	0.4	0.11	mg/kg	D						N	10
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Metals	7440-47-3	Chromium	155	1.6	0.22	mg/kg	EDB						N	10
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Metals	7440-48-4	Cobalt	65.5	0.8	0.014	mg/kg	ED						N	10
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Metals	7440-50-8	Copper	129	3.2	0.32	mg/kg	NDB						N	20
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Metals	7439-89-6	Iron	78100	40	2.6	mg/kg	ED						N	10
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Metals	7439-92-1	Lead	4.5	1.6	0.063	mg/kg	D						N	10
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Metals	7439-95-4	Magnesium	13600	80	1.4	mg/kg	D						N	10
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Metals	7439-96-5	Manganese	2290	1.6	0.046	mg/kg	ED						N	10
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.022	0.032	0.0093	mg/kg	J	J	15				N	1
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.24	4	0.23	mg/kg	JND						N	10
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Metals	7440-02-0	Nickel	77.3	0.8	0.07	mg/kg	NED						N	10
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Metals	7440-24-6	Strontium	89.3	1.6	0.074	mg/kg	D	J	19	12			N	10
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Metals	7440-32-6	Titanium	4750	3.2	0.48	mg/kg	D						N	20
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Metals	7440-66-6	Zinc	78.2	8	0.39	mg/kg	EDB						N	10
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.012	0.04	0.012	mg/kg	U	UJ	11A				N	1
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Explosives	99-65-0	1,3-Dinitrobenzene	0.002	0.04	0.002	mg/kg	U	U					N	1
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.008	0.04	0.008	mg/kg	U	U					N	1
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Explosives	121-14-2	2,4-Dinitrotoluene	0.014	0.04	0.014	mg/kg	U	U					N	1
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Explosives	606-20-2	2,6-Dinitrotoluene	0.007	0.04	0.007	mg/kg	U	U					N	1
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.01	0.04	0.01	mg/kg	U	U					N	1
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Explosives	2691-41-0	HMX	0.012	0.08	0.012	mg/kg	U	U					N	1
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Explosives	99-08-1	3-Nitrotoluene	0.022	0.08	0.022	mg/kg	U	U					N	1
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Explosives	98-95-3	Nitrobenzene	0.025	0.04	0.006	mg/kg	J	J	19	18	15		N	1
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Explosives	55-63-0	Nitroglycerine	0.04	4	0.04	mg/kg	U	U					N	1
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Explosives	88-72-2	2-Nitrotoluene	0.009	0.08	0.009	mg/kg	U	U					N	1
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Explosives	78-11-5	PETN	0.041	0.2	0.041	mg/kg	U	U					N	1
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Explosives	99-99-0	4-Nitrotoluene	0.036	0.08	0.036	mg/kg	U	U					N	1
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Explosives	121-82-4	RDX	0.071	0.08	0.071	mg/kg	U	U					N	1
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Explosives	479-45-8	Tetryl	0.004	0.08	0.004	mg/kg	U	U					N	1
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Metals	7429-90-5	Aluminum	39300	82	2.2	mg/kg	ED						N	10
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Metals	7440-36-0	Antimony	0.14	0.82	0.14	mg/kg	UND	U					N	10
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Metals	7440-39-3	Barium	181	4.1	0.19	mg/kg	NDB						N	10

Attachment 1

Summary of Analytical Results
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Metals	7440-43-9	Cadmium	0.64	0.41	0.11	mg/kg	D						N	10
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Metals	7440-47-3	Chromium	117	1.6	0.23	mg/kg	EDB						N	10
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Metals	7440-48-4	Cobalt	76.5	0.41	0.014	mg/kg	ED						N	10
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Metals	7440-50-8	Copper	86.8	3.3	0.33	mg/kg	NDB						N	20
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Metals	7439-89-6	Iron	75600	41	2.6	mg/kg	ED						N	10
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Metals	7439-92-1	Lead	1.6	1.6	0.065	mg/kg	JD						N	10
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Metals	7439-95-4	Magnesium	12900	82	1.5	mg/kg	D						N	10
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Metals	7439-96-5	Manganese	1800	1.6	0.047	mg/kg	ED						N	10
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Metals	7439-97-6	Mercury	0.0072	0.025	0.0072	mg/kg	U	U					N	1
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Metals	7439-98-7	Molybdenum	0.24	4.1	0.24	mg/kg	UND	U					N	10
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Metals	7440-02-0	Nickel	79.5	0.82	0.072	mg/kg	NED						N	10
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Metals	7440-24-6	Strontium	88	1.6	0.075	mg/kg	D	J	19	12			N	10
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Metals	7440-32-6	Titanium	4480	3.3	0.49	mg/kg	D						N	20
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Metals	7440-66-6	Zinc	66.5	8.2	0.4	mg/kg	EDB						N	10
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.044	0.21	0.044	ug/L	U	UJ	11A				N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Explosives	99-65-0	1,3-Dinitrobenzene	0.029	0.21	0.029	ug/L	U	U					N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.052	0.21	0.052	ug/L	U	U					N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Explosives	121-14-2	2,4-Dinitrotoluene	0.023	0.21	0.023	ug/L	U	U					N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Explosives	606-20-2	2,6-Dinitrotoluene	0.042	0.21	0.042	ug/L	U	U					N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.045	0.21	0.045	ug/L	U	U					N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.036	0.21	0.036	ug/L	U	U					N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Explosives	2691-41-0	HMX	0.022	0.42	0.022	ug/L	U	UJ	11A				N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Explosives	99-08-1	3-Nitrotoluene	0.11	0.42	0.11	ug/L	U	U					N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Explosives	98-95-3	Nitrobenzene	0.018	0.21	0.018	ug/L	U	U					N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Explosives	55-63-0	Nitroglycerine	0.21	21	0.21	ug/L	U	U					N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Explosives	88-72-2	2-Nitrotoluene	0.079	0.42	0.079	ug/L	U	U					N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Explosives	78-11-5	PETN	0.081	1.1	0.081	ug/L	U	U					N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Explosives	99-99-0	4-Nitrotoluene	0.082	0.42	0.082	ug/L	U	U					N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Explosives	121-82-4	RDX	0.084	0.42	0.084	ug/L	U	U					N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Explosives	479-45-8	Tetryl	0.036	0.42	0.036	ug/L	U	U					N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Metals	7429-90-5	Aluminum	6.1	100	5.5	ug/L	J	U	06A				N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Metals	7440-36-0	Antimony	0.13	1	0.13	ug/L	U	U					N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Metals	7440-39-3	Barium	0.79	5	0.15	ug/L	JB	U	06A				N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Metals	7440-43-9	Cadmium	0.17	0.5	0.17	ug/L	U	U					N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Metals	7440-47-3	Chromium	1.3	2	1.3	ug/L	U	U					N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Metals	7440-48-4	Cobalt	0.016	1	0.016	ug/L	UB	U					N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Metals	7440-50-8	Copper	1.4	2	0.43	ug/L	J	J	15				N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Metals	7439-89-6	Iron	94.7	50	5.5	ug/L							N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Metals	7439-92-1	Lead	0.4	2	0.18	ug/L	J	J	15				N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Metals	7439-95-4	Magnesium	13000	100	4.8	ug/L							N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Metals	7439-96-5	Manganese	39.2	2	0.39	ug/L							N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Metals	7439-97-6	Mercury	0.034	0.2	0.034	ug/L	U	U					N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Metals	7439-98-7	Molybdenum	0.33	5	0.12	ug/L	J	J	15				N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Metals	7440-02-0	Nickel	1.1	1	0.15	ug/L							N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Metals	7440-24-6	Strontium	115	2	0.17	ug/L		J	19	12			N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Metals	7440-32-6	Titanium	2.3	2	0.29	ug/L							N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Metals	7440-66-6	Zinc	9.7	10	1.8	ug/L	J	U	06A				N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Perchlorate	14797-73-0	Perchlorate	0.0612	0.2	0.0612	ug/L	U	UJ	19	05B			Y	1
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.012	0.04	0.012	mg/kg	U	UJ	11A				N	1
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Explosives	99-65-0	1,3-Dinitrobenzene	0.002	0.04	0.002	mg/kg	U	U					N	1
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.008	0.04	0.008	mg/kg	U	U					N	1
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Explosives	121-14-2	2,4-Dinitrotoluene	0.014	0.04	0.014	mg/kg	U	U					N	1
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Explosives	606-20-2	2,6-Dinitrotoluene	0.007	0.04	0.007	mg/kg	U	U					N	1
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.01	0.04	0.01	mg/kg	U	U					N	1
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Explosives	2691-41-0	HMX	0.012	0.08	0.012	mg/kg	U	U					N	1
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Explosives	99-08-1	3-Nitrotoluene	0.022	0.08	0.022	mg/kg	U	U					N	1
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Explosives	98-95-3	Nitrobenzene	0.021	0.04	0.006	mg/kg	J	J	19	18	15		N	1
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Explosives	55-63-0	Nitroglycerine	0.04	4	0.04	mg/kg	U	U					N	1
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Explosives	88-72-2	2-Nitrotoluene	0.009	0.08	0.009	mg/kg	U	U					N	1
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Explosives	78-11-5	PETN	0.042	0.2	0.042	mg/kg	U	U					N	1

Attachment 1

Summary of Analytical Results
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Explosives	99-99-0	4-Nitrotoluene	0.036	0.08	0.036	mg/kg	U	U					N	1
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Explosives	121-82-4	RDX	0.071	0.08	0.071	mg/kg	U	U					N	1
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Explosives	479-45-8	Tetryl	0.004	0.08	0.004	mg/kg	U	U					N	1
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	52700	92.6	2.5	mg/kg	ED						N	10
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.16	0.93	0.16	mg/kg	UND	U					N	10
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	646	4.6	0.21	mg/kg	NDB						N	10
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.79	0.46	0.13	mg/kg	D						N	10
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	57	1.9	0.26	mg/kg	EDB						N	10
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	39.3	0.93	0.016	mg/kg	ED						N	10
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	116	1.9	0.19	mg/kg	NDB						N	10
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	66600	46.3	3	mg/kg	ED						N	10
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	9.7	1.9	0.073	mg/kg	D						N	10
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	11400	92.6	1.7	mg/kg	D						N	10
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	2830	1.9	0.053	mg/kg	ED						N	10
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.025	0.031	0.0089	mg/kg	J	J	15				N	1
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.32	4.6	0.27	mg/kg	JND						N	10
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	50.4	0.93	0.081	mg/kg	NED						N	10
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	131	1.9	0.085	mg/kg	D	J	19	12			N	10
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	2910	1.9	0.28	mg/kg	D						N	10
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	80.2	9.3	0.45	mg/kg	EDB						N	10
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.012	0.04	0.012	mg/kg	U	UJ	07A	11A			N	1
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Explosives	99-65-0	1,3-Dinitrobenzene	0.002	0.04	0.002	mg/kg	U	UJ	07A				N	1
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.008	0.04	0.008	mg/kg	U	UJ	07A				N	1
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Explosives	121-14-2	2,4-Dinitrotoluene	0.014	0.04	0.014	mg/kg	U	UJ	07A				N	1
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Explosives	606-20-2	2,6-Dinitrotoluene	0.007	0.04	0.007	mg/kg	U	UJ	07A				N	1
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.01	0.04	0.01	mg/kg	U	UJ	07A				N	1
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.006	0.04	0.006	mg/kg	U	UJ	07A				N	1
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Explosives	2691-41-0	HMX	0.012	0.08	0.012	mg/kg	U	UJ	07A				N	1
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Explosives	99-08-1	3-Nitrotoluene	0.022	0.08	0.022	mg/kg	U	UJ	07A				N	1
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Explosives	98-95-3	Nitrobenzene	0.006	0.04	0.006	mg/kg	U	UJ	07A				N	1
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Explosives	55-63-0	Nitroglycerine	0.04	4	0.04	mg/kg	U	U					N	1
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Explosives	88-72-2	2-Nitrotoluene	0.009	0.08	0.009	mg/kg	U	UJ	07A				N	1
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Explosives	78-11-5	PETN	0.041	0.2	0.041	mg/kg	U	UJ	07A				N	1
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Explosives	99-99-0	4-Nitrotoluene	0.036	0.08	0.036	mg/kg	U	UJ	07A				N	1
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Explosives	121-82-4	RDX	0.071	0.08	0.071	mg/kg	U	UJ	07A				N	1
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Explosives	479-45-8	Tetryl	0.004	0.08	0.004	mg/kg	U	UJ	07A				N	1
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	30500	89.3	2.4	mg/kg	ED						N	10
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.23	0.89	0.15	mg/kg	JND						N	10
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	302	4.5	0.21	mg/kg	NDB						N	10
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.35	0.45	0.12	mg/kg	JD						N	10
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	55.8	1.8	0.25	mg/kg	EDB						N	10
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	34	0.89	0.015	mg/kg	ED						N	10
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	39.3	1.8	0.18	mg/kg	NDB						N	10
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	42800	44.6	2.9	mg/kg	ED						N	10
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	15.4	1.8	0.071	mg/kg	D						N	10
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	4860	89.3	1.6	mg/kg	D						N	10
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	1570	1.8	0.051	mg/kg	ED						N	10
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.04	0.028	0.008	mg/kg							N	1
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.62	4.5	0.26	mg/kg	JND						N	10
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	31.7	0.89	0.079	mg/kg	NED						N	10
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	61.4	1.8	0.082	mg/kg	D	J	19	12			N	10
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	649	1.8	0.27	mg/kg	D						N	10
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	58.5	8.9	0.44	mg/kg	EDB						N	10
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.012	0.04	0.012	mg/kg	U	UJ	07A	11A	08		N	1
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Explosives	99-65-0	1,3-Dinitrobenzene	0.002	0.04	0.002	mg/kg	U	UJ	07A				N	1
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.008	0.04	0.008	mg/kg	U	UJ	07A				N	1
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Explosives	121-14-2	2,4-Dinitrotoluene	0.014	0.04	0.014	mg/kg	U	UJ	07A	08A			N	1
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Explosives	606-20-2	2,6-Dinitrotoluene	0.007	0.04	0.007	mg/kg	U	UJ	07A				N	1
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.01	0.04	0.01	mg/kg	U	UJ	07A	08A			N	1
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.006	0.04	0.006	mg/kg	U	UJ	07A	08A			N	1
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Explosives	2691-41-0	HMX	0.012	0.08	0.012	mg/kg	U	UJ	07A	08A			N	1

Attachment 1

Summary of Analytical Results
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Explosives	99-08-1	3-Nitrotoluene	0.022	0.08	0.022	mg/kg	U	UJ	07A				N	1
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Explosives	98-95-3	Nitrobenzene	0.024	0.04	0.006	mg/kg	J	J	08A	19	18	15	N	1
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Explosives	55-63-0	Nitroglycerine	0.04	4	0.04	mg/kg	U	U					N	1
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Explosives	88-72-2	2-Nitrotoluene	0.009	0.08	0.009	mg/kg	U	UJ	07A				N	1
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Explosives	78-11-5	PETN	0.042	0.2	0.042	mg/kg	U	U					N	1
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Explosives	99-99-0	4-Nitrotoluene	0.036	0.08	0.036	mg/kg	U	UJ	07A				N	1
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Explosives	121-82-4	RDX	0.071	0.08	0.071	mg/kg	U	UJ	07A	08A			N	1
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Explosives	479-45-8	Tetryl	0.004	0.08	0.004	mg/kg	U	UJ	07A				N	1
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Metals	7429-90-5	Aluminum	31000	89.3	2.4	mg/kg	ED						N	10
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.25	0.89	0.15	mg/kg	JND						N	10
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Metals	7440-39-3	Barium	315	4.5	0.21	mg/kg	NDB						N	10
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.44	0.45	0.12	mg/kg	JD						N	10
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Metals	7440-47-3	Chromium	57.4	1.8	0.25	mg/kg	EDB						N	10
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Metals	7440-48-4	Cobalt	33.2	0.89	0.015	mg/kg	ED						N	10
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Metals	7440-50-8	Copper	39.5	1.8	0.18	mg/kg	NDB						N	10
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Metals	7439-89-6	Iron	44100	44.6	2.9	mg/kg	ED						N	10
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Metals	7439-92-1	Lead	16.4	1.8	0.071	mg/kg	D						N	10
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Metals	7439-95-4	Magnesium	4990	89.3	1.6	mg/kg	D						N	10
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Metals	7439-96-5	Manganese	1650	1.8	0.051	mg/kg	ED						N	10
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.037	0.03	0.0086	mg/kg							N	1
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.63	4.5	0.26	mg/kg	JND						N	10
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Metals	7440-02-0	Nickel	32	0.89	0.079	mg/kg	NED						N	10
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Metals	7440-24-6	Strontium	62.6	1.8	0.082	mg/kg	D	J	19	12			N	10
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Metals	7440-32-6	Titanium	663	1.8	0.27	mg/kg	D						N	10
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Metals	7440-66-6	Zinc	62.3	8.9	0.44	mg/kg	EDB						N	10
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.012	0.04	0.012	mg/kg	U	UJ	11A				N	1
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Explosives	99-65-0	1,3-Dinitrobenzene	0.002	0.04	0.002	mg/kg	U	U					N	1
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.008	0.04	0.008	mg/kg	U	U					N	1
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Explosives	121-14-2	2,4-Dinitrotoluene	0.014	0.04	0.014	mg/kg	U	U					N	1
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Explosives	606-20-2	2,6-Dinitrotoluene	0.007	0.04	0.007	mg/kg	U	U					N	1
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.01	0.04	0.01	mg/kg	U	U					N	1
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Explosives	2691-41-0	HMX	0.012	0.08	0.012	mg/kg	U	U					N	1
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Explosives	99-08-1	3-Nitrotoluene	0.022	0.08	0.022	mg/kg	U	U					N	1
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Explosives	98-95-3	Nitrobenzene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Explosives	55-63-0	Nitroglycerine	0.04	4	0.04	mg/kg	U	U					N	1
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Explosives	88-72-2	2-Nitrotoluene	0.009	0.08	0.009	mg/kg	U	U					N	1
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Explosives	78-11-5	PETN	0.042	0.2	0.042	mg/kg	U	U					N	1
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Explosives	99-99-0	4-Nitrotoluene	0.036	0.08	0.036	mg/kg	U	U					N	1
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Explosives	121-82-4	RDX	0.071	0.08	0.071	mg/kg	U	U					N	1
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Explosives	479-45-8	Tetryl	0.004	0.08	0.004	mg/kg	U	U					N	1
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Metals	7429-90-5	Aluminum	34900	165	4.5	mg/kg	ED						N	20
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Metals	7440-36-0	Antimony	0.28	1.7	0.28	mg/kg	UND	U					N	20
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Metals	7440-39-3	Barium	444	8.3	0.38	mg/kg	NDB						N	20
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Metals	7440-43-9	Cadmium	0.42	0.83	0.23	mg/kg	JD	J	15				N	20
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Metals	7440-47-3	Chromium	55.9	3.3	0.46	mg/kg	EDB						N	20
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Metals	7440-48-4	Cobalt	38.1	0.83	0.028	mg/kg	EDB						N	20
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Metals	7440-50-8	Copper	67.5	3.3	0.33	mg/kg	NDB						N	20
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Metals	7439-89-6	Iron	63500	82.6	5.3	mg/kg	ED						N	20
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Metals	7439-92-1	Lead	12	3.3	0.13	mg/kg	D						N	20
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Metals	7439-95-4	Magnesium	5370	165	3	mg/kg	D						N	20
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Metals	7439-96-5	Manganese	2320	3.3	0.094	mg/kg	ED						N	20
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Metals	7439-97-6	Mercury	0.041	0.031	0.0091	mg/kg							N	1
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Metals	7439-98-7	Molybdenum	1.2	8.3	0.48	mg/kg	JND	J	15				N	20
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Metals	7440-02-0	Nickel	38.2	1.7	0.15	mg/kg	NEDB						N	20
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Metals	7440-24-6	Strontium	107	3.3	0.15	mg/kg	D	J	19	12			N	20
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Metals	7440-32-6	Titanium	1400	3.3	0.5	mg/kg	D						N	20
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Metals	7440-66-6	Zinc	78.8	16.5	0.81	mg/kg	EDB						N	20
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.044	0.21	0.044	ug/L	U	U					N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Explosives	99-65-0	1,3-Dinitrobenzene	0.029	0.21	0.029	ug/L	U	U					N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.052	0.21	0.052	ug/L	U	U					N	1

Attachment 1

Summary of Analytical Results
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Explosives	121-14-2	2,4-Dinitrotoluene	0.023	0.21	0.023	ug/L	U	U					N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Explosives	606-20-2	2,6-Dinitrotoluene	0.042	0.21	0.042	ug/L	U	U					N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.045	0.21	0.045	ug/L	U	U					N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.036	0.21	0.036	ug/L	U	U					N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Explosives	2691-41-0	HMX	0.022	0.42	0.022	ug/L	U	UJ	11A				N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Explosives	99-08-1	3-Nitrotoluene	0.11	0.42	0.11	ug/L	U	U					N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Explosives	98-95-3	Nitrobenzene	0.018	0.21	0.018	ug/L	U	U					N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Explosives	55-63-0	Nitroglycerine	0.21	21	0.21	ug/L	U	U					N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Explosives	88-72-2	2-Nitrotoluene	0.079	0.42	0.079	ug/L	U	U					N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Explosives	78-11-5	PETN	0.004	0.053	0.004	ug/L	U	U					N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Explosives	99-99-0	4-Nitrotoluene	0.082	0.42	0.082	ug/L	U	U					N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Explosives	121-82-4	RDX	0.084	0.42	0.084	ug/L	U	U					N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Explosives	479-45-8	Tetryl	0.036	0.42	0.036	ug/L	U	U					N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Metals	7429-90-5	Aluminum	11.8	100	5.5	ug/L	J	UJ	19	17	06A		N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Metals	7440-36-0	Antimony	0.13	1	0.13	ug/L	U	U					N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Metals	7440-39-3	Barium	20.2	5	0.15	ug/L	B						N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Metals	7440-43-9	Cadmium	0.17	0.5	0.17	ug/L	U	U					N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Metals	7440-47-3	Chromium	1.3	2	1.3	ug/L	U	U					N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Metals	7440-48-4	Cobalt	0.016	1	0.016	ug/L	U	U					N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Metals	7440-50-8	Copper	1.4	2	0.43	ug/L	J	J	15				N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Metals	7439-89-6	Iron	16.3	50	5.5	ug/L	J	J	19	17	15		N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Metals	7439-92-1	Lead	0.24	2	0.18	ug/L	J	J	15				N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Metals	7439-95-4	Magnesium	1410	100	4.8	ug/L							N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Metals	7439-96-5	Manganese	11.3	2	0.39	ug/L							N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Metals	7439-97-6	Mercury	0.034	0.2	0.034	ug/L	U	U					N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Metals	7439-98-7	Molybdenum	1.3	5	0.12	ug/L	J	J	15				N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Metals	7440-02-0	Nickel	0.29	1	0.15	ug/L	JB	J	19	17	15		N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Metals	7440-24-6	Strontium	101	2	0.17	ug/L		J	19	12			N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Metals	7440-32-6	Titanium	0.85	2	0.29	ug/L	J	J	15				N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Metals	7440-66-6	Zinc	18.2	10	1.8	ug/L		J	19	17			N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Perchlorate	14797-73-0	Perchlorate	0.0612	0.2	0.0612	ug/L	U	U					Y	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.042	0.2	0.042	ug/L	U	U					N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Explosives	99-65-0	1,3-Dinitrobenzene	0.028	0.2	0.028	ug/L	U	U					N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.05	0.2	0.05	ug/L	U	U					N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Explosives	121-14-2	2,4-Dinitrotoluene	0.022	0.2	0.022	ug/L	U	U					N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Explosives	606-20-2	2,6-Dinitrotoluene	0.04	0.2	0.04	ug/L	U	U					N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.044	0.2	0.044	ug/L	U	U					N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.034	0.2	0.034	ug/L	U	U					N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Explosives	2691-41-0	HMX	0.021	0.4	0.021	ug/L	U	UJ	11A				N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Explosives	99-08-1	3-Nitrotoluene	0.11	0.4	0.11	ug/L	U	U					N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Explosives	98-95-3	Nitrobenzene	0.017	0.2	0.017	ug/L	U	U					N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Explosives	55-63-0	Nitroglycerine	0.2	20	0.2	ug/L	U	U					N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Explosives	88-72-2	2-Nitrotoluene	0.076	0.4	0.076	ug/L	U	U					N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Explosives	78-11-5	PETN	0.004	0.051	0.004	ug/L	U	U					N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Explosives	99-99-0	4-Nitrotoluene	0.079	0.4	0.079	ug/L	U	U					N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Explosives	121-82-4	RDX	0.08	0.4	0.08	ug/L	U	U					N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Explosives	479-45-8	Tetryl	0.035	0.4	0.035	ug/L	U	U					N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Metals	7429-90-5	Aluminum	7.4	100	5.5	ug/L	J	UJ	19	17	06A		N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Metals	7440-36-0	Antimony	0.13	1	0.13	ug/L	U	U					N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Metals	7440-39-3	Barium	19.6	5	0.15	ug/L	B						N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Metals	7440-43-9	Cadmium	0.17	0.5	0.17	ug/L	U	U					N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Metals	7440-47-3	Chromium	1.3	2	1.3	ug/L	U	U					N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Metals	7440-48-4	Cobalt	0.016	1	0.016	ug/L	U	U					N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Metals	7440-50-8	Copper	1.6	2	0.43	ug/L	J	J	15				N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Metals	7439-89-6	Iron	30.1	50	5.5	ug/L	J	J	19	17	15		N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Metals	7439-92-1	Lead	0.25	2	0.18	ug/L	J	J	15				N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Metals	7439-95-4	Magnesium	1400	100	4.8	ug/L							N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Metals	7439-96-5	Manganese	11.5	2	0.39	ug/L							N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Metals	7439-97-6	Mercury	0.034	0.2	0.034	ug/L	U	U					N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Metals	7439-98-7	Molybdenum	1.4	5	0.12	ug/L	J	J	15				N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Metals	7440-02-0	Nickel	1.1	1	0.15	ug/L	B	J	19	17			N	1

Attachment 1

Summary of Analytical Results
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Metals	7440-24-6	Strontium	98.3	2	0.17	ug/L		J	19	12			N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Metals	7440-32-6	Titanium	0.79	2	0.29	ug/L	J	J	15				N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Metals	7440-66-6	Zinc	9.2	10	1.8	ug/L	J	J	19	17	15		N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Perchlorate	14797-73-0	Perchlorate	0.0612	0.2	0.0612	ug/L	U	U					Y	1
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.012	0.04	0.012	mg/kg	U	U					N	1
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Explosives	99-65-0	1,3-Dinitrobenzene	0.002	0.04	0.002	mg/kg	U	U					N	1
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.008	0.04	0.008	mg/kg	U	U					N	1
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Explosives	121-14-2	2,4-Dinitrotoluene	0.014	0.04	0.014	mg/kg	U	U					N	1
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Explosives	606-20-2	2,6-Dinitrotoluene	0.007	0.04	0.007	mg/kg	U	U					N	1
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.01	0.04	0.01	mg/kg	U	U					N	1
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Explosives	2691-41-0	HMX	0.012	0.08	0.012	mg/kg	U	U					N	1
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Explosives	99-08-1	3-Nitrotoluene	0.022	0.08	0.022	mg/kg	U	U					N	1
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Explosives	98-95-3	Nitrobenzene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Explosives	55-63-0	Nitroglycerine	0.04	4	0.04	mg/kg	U	UJ	11A				N	1
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Explosives	88-72-2	2-Nitrotoluene	0.009	0.08	0.009	mg/kg	U	U					N	1
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Explosives	78-11-5	PETN	0.041	0.2	0.041	mg/kg	U	U					N	1
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Explosives	99-99-0	4-Nitrotoluene	0.036	0.08	0.036	mg/kg	U	U					N	1
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Explosives	121-82-4	RDX	0.071	0.08	0.071	mg/kg	U	U					N	1
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Explosives	479-45-8	Tetryl	0.004	0.08	0.004	mg/kg	U	U					N	1
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Metals	7429-90-5	Aluminum	21200	75.2	2	mg/kg	D						N	10
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Metals	7440-36-0	Antimony	0.17	0.75	0.13	mg/kg	JND	J	15				N	10
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Metals	7440-39-3	Barium	164	3.8	0.17	mg/kg	NDB						N	10
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Metals	7440-43-9	Cadmium	0.43	0.38	0.11	mg/kg	D						N	10
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Metals	7440-47-3	Chromium	30.2	1.5	0.21	mg/kg	EDB						N	10
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Metals	7440-48-4	Cobalt	17.2	0.38	0.013	mg/kg	DB						N	10
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Metals	7440-50-8	Copper	18	1.5	0.15	mg/kg	D						N	10
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Metals	7439-89-6	Iron	30200	37.6	2.4	mg/kg	D						N	10
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Metals	7439-92-1	Lead	14.7	1.5	0.059	mg/kg	D						N	10
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Metals	7439-95-4	Magnesium	4100	75.2	1.4	mg/kg	D						N	10
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Metals	7439-96-5	Manganese	924	1.5	0.043	mg/kg	DB						N	10
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Metals	7439-97-6	Mercury	0.035	0.031	0.0091	mg/kg							N	1
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Metals	7439-98-7	Molybdenum	0.46	3.8	0.22	mg/kg	JD	J	15				N	10
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Metals	7440-02-0	Nickel	17	0.75	0.066	mg/kg	D						N	10
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Metals	7440-24-6	Strontium	30.4	1.5	0.069	mg/kg	D						N	10
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Metals	7440-32-6	Titanium	1770	1.5	0.23	mg/kg	D						N	10
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Metals	7440-66-6	Zinc	67.4	7.5	0.37	mg/kg	EDB						N	10
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.012	0.04	0.012	mg/kg	U	U					N	1
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Explosives	99-65-0	1,3-Dinitrobenzene	0.002	0.04	0.002	mg/kg	U	U					N	1
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.008	0.04	0.008	mg/kg	U	U					N	1
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Explosives	121-14-2	2,4-Dinitrotoluene	0.014	0.04	0.014	mg/kg	U	U					N	1
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Explosives	606-20-2	2,6-Dinitrotoluene	0.007	0.04	0.007	mg/kg	U	U					N	1
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.01	0.04	0.01	mg/kg	U	U					N	1
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Explosives	2691-41-0	HMX	0.012	0.08	0.012	mg/kg	U	U					N	1
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Explosives	99-08-1	3-Nitrotoluene	0.022	0.08	0.022	mg/kg	U	U					N	1
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Explosives	98-95-3	Nitrobenzene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Explosives	55-63-0	Nitroglycerine	0.04	4	0.04	mg/kg	U	UJ	11A				N	1
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Explosives	88-72-2	2-Nitrotoluene	0.009	0.08	0.009	mg/kg	U	U					N	1
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Explosives	78-11-5	PETN	0.042	0.2	0.042	mg/kg	U	U					N	1
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Explosives	99-99-0	4-Nitrotoluene	0.036	0.08	0.036	mg/kg	U	U					N	1
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Explosives	121-82-4	RDX	0.071	0.08	0.071	mg/kg	U	U					N	1
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Explosives	479-45-8	Tetryl	0.004	0.08	0.004	mg/kg	U	U					N	1
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Metals	7429-90-5	Aluminum	19000	87.7	2.4	mg/kg	D						N	10
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Metals	7440-36-0	Antimony	0.15	0.88	0.15	mg/kg	UND	U					N	10
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Metals	7440-39-3	Barium	188	4.4	0.2	mg/kg	NDB						N	10
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Metals	7440-43-9	Cadmium	0.29	0.44	0.12	mg/kg	JD	J	15				N	10
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Metals	7440-47-3	Chromium	26.6	1.8	0.25	mg/kg	EDB						N	10
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Metals	7440-48-4	Cobalt	18.3	0.44	0.015	mg/kg	DB						N	10
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Metals	7440-50-8	Copper	18.8	1.8	0.18	mg/kg	D						N	10
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Metals	7439-89-6	Iron	27900	43.9	2.8	mg/kg	D						N	10

Attachment 1

Summary of Analytical Results
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Metals	7439-92-1	Lead	11.6	1.8	0.069	mg/kg	D						N	10
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Metals	7439-95-4	Magnesium	3040	87.7	1.6	mg/kg	D						N	10
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Metals	7439-96-5	Manganese	1460	1.8	0.05	mg/kg	DB						N	10
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Metals	7439-97-6	Mercury	0.041	0.03	0.0086	mg/kg							N	1
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Metals	7439-98-7	Molybdenum	0.3	4.4	0.25	mg/kg	JD	J	15				N	10
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Metals	7440-02-0	Nickel	15.2	0.88	0.077	mg/kg	D						N	10
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Metals	7440-24-6	Strontium	38.9	1.8	0.081	mg/kg	D						N	10
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Metals	7440-32-6	Titanium	577	1.8	0.26	mg/kg	D						N	10
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Metals	7440-66-6	Zinc	72.6	8.8	0.43	mg/kg	EDB						N	10
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.012	0.04	0.012	mg/kg	U	U					N	1
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Explosives	99-65-0	1,3-Dinitrobenzene	0.002	0.04	0.002	mg/kg	U	U					N	1
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.008	0.04	0.008	mg/kg	U	U					N	1
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Explosives	121-14-2	2,4-Dinitrotoluene	0.014	0.04	0.014	mg/kg	U	U					N	1
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Explosives	606-20-2	2,6-Dinitrotoluene	0.007	0.04	0.007	mg/kg	U	U					N	1
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.01	0.04	0.01	mg/kg	U	U					N	1
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Explosives	2691-41-0	HMX	0.012	0.08	0.012	mg/kg	U	U					N	1
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Explosives	99-08-1	3-Nitrotoluene	0.022	0.08	0.022	mg/kg	U	U					N	1
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Explosives	98-95-3	Nitrobenzene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Explosives	55-63-0	Nitroglycerine	0.04	4	0.04	mg/kg	U	UJ	11A				N	1
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Explosives	88-72-2	2-Nitrotoluene	0.009	0.08	0.009	mg/kg	U	U					N	1
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Explosives	78-11-5	PETN	0.042	0.2	0.042	mg/kg	U	U					N	1
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Explosives	99-99-0	4-Nitrotoluene	0.036	0.08	0.036	mg/kg	U	U					N	1
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Explosives	121-82-4	RDX	0.071	0.08	0.071	mg/kg	U	U					N	1
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Explosives	479-45-8	Tetryl	0.004	0.08	0.004	mg/kg	U	U					N	1
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Metals	7429-90-5	Aluminum	20600	84	2.3	mg/kg	D						N	10
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-36-0	Antimony	0.15	0.84	0.14	mg/kg	JND	J	15				N	10
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-39-3	Barium	161	4.2	0.19	mg/kg	NDB						N	10
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-43-9	Cadmium	0.3	0.42	0.12	mg/kg	JD	J	15				N	10
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-47-3	Chromium	26.8	1.7	0.24	mg/kg	EDB						N	10
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-48-4	Cobalt	14.6	0.42	0.014	mg/kg	DB						N	10
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-50-8	Copper	14.9	1.7	0.17	mg/kg	D						N	10
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Metals	7439-89-6	Iron	26600	42	2.7	mg/kg	D						N	10
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Metals	7439-92-1	Lead	13.7	1.7	0.066	mg/kg	D						N	10
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Metals	7439-95-4	Magnesium	3990	84	1.5	mg/kg	D						N	10
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Metals	7439-96-5	Manganese	758	1.7	0.048	mg/kg	DB						N	10
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Metals	7439-97-6	Mercury	0.029	0.029	0.0083	mg/kg		U	06B				N	1
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Metals	7439-98-7	Molybdenum	0.38	4.2	0.24	mg/kg	JD	J	15				N	10
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-02-0	Nickel	15.4	0.84	0.074	mg/kg	D						N	10
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-24-6	Strontium	19.1	1.7	0.077	mg/kg	D						N	10
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-32-6	Titanium	1380	1.7	0.25	mg/kg	D						N	10
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-66-6	Zinc	59.2	8.4	0.41	mg/kg	EDB						N	10
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.012	0.04	0.012	mg/kg	U	U					N	1
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Explosives	99-65-0	1,3-Dinitrobenzene	0.002	0.04	0.002	mg/kg	U	U					N	1
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.008	0.04	0.008	mg/kg	U	U					N	1
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Explosives	121-14-2	2,4-Dinitrotoluene	0.014	0.04	0.014	mg/kg	U	U					N	1
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Explosives	606-20-2	2,6-Dinitrotoluene	0.007	0.04	0.007	mg/kg	U	U					N	1
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.01	0.04	0.01	mg/kg	U	U					N	1
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Explosives	2691-41-0	HMX	0.012	0.08	0.012	mg/kg	U	U					N	1
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Explosives	99-08-1	3-Nitrotoluene	0.022	0.08	0.022	mg/kg	U	U					N	1
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Explosives	98-95-3	Nitrobenzene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Explosives	55-63-0	Nitroglycerine	0.04	4	0.04	mg/kg	U	UJ	11A				N	1
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Explosives	88-72-2	2-Nitrotoluene	0.009	0.08	0.009	mg/kg	U	U					N	1
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Explosives	78-11-5	PETN	0.041	0.2	0.041	mg/kg	U	U					N	1
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Explosives	99-99-0	4-Nitrotoluene	0.036	0.08	0.036	mg/kg	U	U					N	1
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Explosives	121-82-4	RDX	0.071	0.08	0.071	mg/kg	U	U					N	1
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Explosives	479-45-8	Tetryl	0.004	0.08	0.004	mg/kg	U	U					N	1
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	25000	84.7	2.3	mg/kg	D						N	10
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.14	0.85	0.14	mg/kg	UND	U					N	10
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	157	4.2	0.19	mg/kg	NDB						N	10

Attachment 1

Summary of Analytical Results
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.27	0.42	0.12	mg/kg	JD	J	15				N	10
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	31.8	1.7	0.24	mg/kg	EDB						N	10
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	17.8	0.42	0.014	mg/kg	DB						N	10
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	20.4	1.7	0.17	mg/kg	D						N	10
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	32800	42.4	2.7	mg/kg	D						N	10
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	11.6	1.7	0.067	mg/kg	D						N	10
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	4410	84.7	1.5	mg/kg	D						N	10
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	830	1.7	0.048	mg/kg	D						N	10
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.038	0.03	0.0086	mg/kg							N	1
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.28	4.2	0.25	mg/kg	JD	J	15				N	10
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	14.3	0.85	0.075	mg/kg	D						N	10
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	25.4	1.7	0.078	mg/kg	D						N	10
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	1010	1.7	0.25	mg/kg	D						N	10
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	53	8.5	0.42	mg/kg	EDB						N	10
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.012	0.04	0.012	mg/kg	U	U					N	1
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Explosives	99-65-0	1,3-Dinitrobenzene	0.002	0.04	0.002	mg/kg	U	U					N	1
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.008	0.04	0.008	mg/kg	U	U					N	1
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Explosives	121-14-2	2,4-Dinitrotoluene	0.014	0.04	0.014	mg/kg	U	U					N	1
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Explosives	606-20-2	2,6-Dinitrotoluene	0.007	0.04	0.007	mg/kg	U	U					N	1
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.01	0.04	0.01	mg/kg	U	U					N	1
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Explosives	2691-41-0	HMX	0.012	0.08	0.012	mg/kg	U	U					N	1
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Explosives	99-08-1	3-Nitrotoluene	0.022	0.08	0.022	mg/kg	U	U					N	1
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Explosives	98-95-3	Nitrobenzene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Explosives	55-63-0	Nitroglycerine	0.04	4	0.04	mg/kg	U	UJ	11A				N	1
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Explosives	88-72-2	2-Nitrotoluene	0.009	0.08	0.009	mg/kg	U	U					N	1
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Explosives	78-11-5	PETN	0.042	0.2	0.042	mg/kg	U	U					N	1
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Explosives	99-99-0	4-Nitrotoluene	0.036	0.08	0.036	mg/kg	U	U					N	1
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Explosives	121-82-4	RDX	0.071	0.08	0.071	mg/kg	U	U					N	1
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Explosives	479-45-8	Tetryl	0.004	0.08	0.004	mg/kg	U	U					N	1
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Metals	7429-90-5	Aluminum	12300	83.3	2.2	mg/kg	D						N	10
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Metals	7440-36-0	Antimony	0.14	0.83	0.14	mg/kg	UND	U					N	10
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Metals	7440-39-3	Barium	76	4.2	0.19	mg/kg	NDB						N	10
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Metals	7440-43-9	Cadmium	0.18	0.42	0.12	mg/kg	JD	J	15				N	10
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Metals	7440-47-3	Chromium	19.9	1.7	0.23	mg/kg	EDB						N	10
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Metals	7440-48-4	Cobalt	17.2	0.42	0.014	mg/kg	DB						N	10
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Metals	7440-50-8	Copper	14.1	1.7	0.17	mg/kg	D						N	10
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Metals	7439-89-6	Iron	21200	41.7	2.7	mg/kg	D						N	10
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Metals	7439-92-1	Lead	5	1.7	0.066	mg/kg	D						N	10
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Metals	7439-95-4	Magnesium	1920	83.3	1.5	mg/kg	D						N	10
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Metals	7439-96-5	Manganese	939	1.7	0.048	mg/kg	D						N	10
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Metals	7439-97-6	Mercury	0.034	0.028	0.0081	mg/kg							N	1
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Metals	7439-98-7	Molybdenum	0.24	4.2	0.24	mg/kg	UD	U					N	10
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Metals	7440-02-0	Nickel	6.2	0.83	0.073	mg/kg	D						N	10
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Metals	7440-24-6	Strontium	19.7	1.7	0.077	mg/kg	D						N	10
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Metals	7440-32-6	Titanium	379	1.7	0.25	mg/kg	D						N	10
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Metals	7440-66-6	Zinc	27.8	8.3	0.41	mg/kg	EDB						N	10
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Explosives	99-35-4	1,3,5-Trinitrobenzene	0.012	0.04	0.012	mg/kg	U	U					N	1
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Explosives	99-65-0	1,3-Dinitrobenzene	0.002	0.04	0.002	mg/kg	U	U					N	1
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.008	0.04	0.008	mg/kg	U	U					N	1
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Explosives	121-14-2	2,4-Dinitrotoluene	0.014	0.04	0.014	mg/kg	U	U					N	1
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Explosives	606-20-2	2,6-Dinitrotoluene	0.007	0.04	0.007	mg/kg	U	U					N	1
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.01	0.04	0.01	mg/kg	U	U					N	1
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Explosives	2691-41-0	HMX	0.012	0.08	0.012	mg/kg	U	U					N	1
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Explosives	99-08-1	3-Nitrotoluene	0.022	0.08	0.022	mg/kg	U	U					N	1
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Explosives	98-95-3	Nitrobenzene	0.006	0.04	0.006	mg/kg	U	U					N	1
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Explosives	55-63-0	Nitroglycerine	0.04	4	0.04	mg/kg	U	UJ	11A				N	1
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Explosives	88-72-2	2-Nitrotoluene	0.009	0.08	0.009	mg/kg	U	U					N	1
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Explosives	78-11-5	PETN	0.042	0.2	0.042	mg/kg	U	U					N	1
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Explosives	99-99-0	4-Nitrotoluene	0.036	0.08	0.036	mg/kg	U	U					N	1

Attachment 1

Summary of Analytical Results
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Explosives	121-82-4	RDX	0.071	0.08	0.071	mg/kg	U	U					N	1
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Explosives	479-45-8	Tetryl	0.004	0.08	0.004	mg/kg	U	U					N	1
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Metals	7429-90-5	Aluminum	16100	80.6	2.2	mg/kg	D						N	10
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Metals	7440-36-0	Antimony	0.14	0.81	0.14	mg/kg	UND	U					N	10
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Metals	7440-39-3	Barium	104	4	0.19	mg/kg	NDB						N	10
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Metals	7440-43-9	Cadmium	0.18	0.4	0.11	mg/kg	JD	J	15				N	10
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Metals	7440-47-3	Chromium	24.2	1.6	0.23	mg/kg	EDB						N	10
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Metals	7440-48-4	Cobalt	17.7	0.4	0.014	mg/kg	DB						N	10
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Metals	7440-50-8	Copper	18.4	1.6	0.16	mg/kg	D						N	10
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Metals	7439-89-6	Iron	25000	40.3	2.6	mg/kg	D						N	10
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Metals	7439-92-1	Lead	5.9	1.6	0.064	mg/kg	D						N	10
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Metals	7439-95-4	Magnesium	2580	80.6	1.5	mg/kg	D						N	10
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Metals	7439-96-5	Manganese	1090	1.6	0.046	mg/kg	D						N	10
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Metals	7439-97-6	Mercury	0.048	0.029	0.0084	mg/kg							N	1
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Metals	7439-98-7	Molybdenum	0.24	4	0.23	mg/kg	JD	J	15				N	10
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Metals	7440-02-0	Nickel	8.3	0.81	0.071	mg/kg	D						N	10
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Metals	7440-24-6	Strontium	30.1	1.6	0.074	mg/kg	D						N	10
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Metals	7440-32-6	Titanium	510	1.6	0.24	mg/kg	D						N	10
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Metals	7440-66-6	Zinc	38.5	8.1	0.4	mg/kg	EDB						N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	54000	81.3	2.2	mg/kg	ED	J	19	13			N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.14	0.81	0.14	mg/kg	UND	UJ	08A				N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-38-2	Arsenic	0.95	4.1	0.5	mg/kg	JND	J	15				N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	127	4.1	0.19	mg/kg	NDB	J	08A				N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-41-7	Beryllium	0.53	0.16	0.026	mg/kg	D						N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.6	0.41	0.11	mg/kg	D						N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-70-2	Calcium	5770	813	4.6	mg/kg	ED	J	19	13			N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	243	1.6	0.23	mg/kg	EDB	J	19	13			N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	80.6	0.41	0.014	mg/kg	EDB	J	19	13			N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	133	3.3	0.33	mg/kg	NDB	J	08A				N	20
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	83100	40.7	2.6	mg/kg	ED	J	19	13			N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	3.5	1.6	0.064	mg/kg	D						N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	15300	81.3	1.5	mg/kg	D						N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	2400	1.6	0.046	mg/kg	ED	J	19	13			N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.067	0.033	0.0095	mg/kg							N	1
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.33	4.1	0.24	mg/kg	JND	J	15	08A			N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	96.8	0.81	0.072	mg/kg	NEDB	J	19	13	08A		N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-09-7	Potassium	572	813	1.6	mg/kg	JD	J	15				N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7782-49-2	Selenium	0.94	4.1	0.79	mg/kg	JND	J	15				N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-22-4	Silver	0.093	0.24	0.015	mg/kg	JDB	J	15				N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-23-5	Sodium	411	813	7.6	mg/kg	JND	J	15	08A			N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	36.6	1.6	0.075	mg/kg	D	J	19	12			N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-28-0	Thallium	0.17	1.6	0.14	mg/kg	JDB	U	06A				N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	5690	3.3	0.49	mg/kg	D						N	20
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-62-2	Vanadium	319	8.1	2	mg/kg	D						N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	79.2	8.1	0.4	mg/kg	EDB	J	19	13			N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	29500	94.3	2.5	mg/kg	ED						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.21	0.94	0.16	mg/kg	JND						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7440-38-2	Arsenic	13.6	4.7	0.58	mg/kg	ND						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	290	4.7	0.22	mg/kg	NDB						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7440-41-7	Beryllium	1	0.19	0.03	mg/kg	D						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.3	0.47	0.13	mg/kg	JD						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7440-70-2	Calcium	2010	943	5.3	mg/kg	ED						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	35.1	1.9	0.26	mg/kg	EDB						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	29.2	0.94	0.016	mg/kg	ED						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	35.1	1.9	0.19	mg/kg	NDB						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	42600	47.2	3	mg/kg	ED						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	22.2	1.9	0.075	mg/kg	D						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	4220	94.3	1.7	mg/kg	D						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	2010	1.9	0.054	mg/kg	ED						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.047	0.026	0.0075	mg/kg							N	1
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.62	4.7	0.27	mg/kg	JND						N	10

Attachment 1

Summary of Analytical Results
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	20.2	0.94	0.083	mg/kg	NED						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7440-09-7	Potassium	2250	943	1.9	mg/kg	D						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7782-49-2	Selenium	0.92	4.7	0.92	mg/kg	UND	U					N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7440-22-4	Silver	0.06	0.28	0.018	mg/kg	JDB						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7440-23-5	Sodium	69.9	943	8.9	mg/kg	JND						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	23.8	1.9	0.087	mg/kg	D	J	19	12			N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7440-28-0	Thallium	0.32	1.9	0.16	mg/kg	JDB	U	06A				N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	2290	1.9	0.28	mg/kg	D						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7440-62-2	Vanadium	114	9.4	2.4	mg/kg	D						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	99.7	9.4	0.46	mg/kg	EDB						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	27900	86.2	2.3	mg/kg	ED						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.22	0.86	0.15	mg/kg	JND						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-38-2	Arsenic	5	4.3	0.53	mg/kg	ND						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	235	4.3	0.2	mg/kg	NDB						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-41-7	Beryllium	0.94	0.17	0.028	mg/kg	D						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.29	0.43	0.12	mg/kg	JD						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-70-2	Calcium	1940	862	4.8	mg/kg	ED						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	37.3	1.7	0.24	mg/kg	EDB						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	21.1	0.86	0.015	mg/kg	ED						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	30.5	1.7	0.17	mg/kg	NDB						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	39700	43.1	2.8	mg/kg	ED						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	15.6	1.7	0.068	mg/kg	D						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	4400	86.2	1.6	mg/kg	D						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	1560	1.7	0.049	mg/kg	ED						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.029	0.029	0.0083	mg/kg							N	1
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.57	4.3	0.25	mg/kg	JND						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	21.6	0.86	0.076	mg/kg	NED						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-09-7	Potassium	2610	862	1.7	mg/kg	D						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7782-49-2	Selenium	0.84	4.3	0.84	mg/kg	UND	U					N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-22-4	Silver	0.053	0.26	0.016	mg/kg	JDB						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-23-5	Sodium	80.6	862	8.1	mg/kg	JND						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	21.8	1.7	0.079	mg/kg	D	J	19	12			N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-28-0	Thallium	0.28	1.7	0.15	mg/kg	JDB	U	06A				N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	2300	1.7	0.26	mg/kg	D						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-62-2	Vanadium	108	8.6	2.2	mg/kg	D						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	81.4	8.6	0.42	mg/kg	EDB						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	24300	80.6	2.2	mg/kg	ED						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.19	0.81	0.14	mg/kg	JND						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-38-2	Arsenic	9.8	4	0.49	mg/kg	ND						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	174	4	0.19	mg/kg	NDB						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-41-7	Beryllium	0.89	0.16	0.026	mg/kg	D						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.3	0.4	0.11	mg/kg	JD						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-70-2	Calcium	3420	806	4.5	mg/kg	ED						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	26.2	1.6	0.23	mg/kg	EDB						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	15.9	0.81	0.014	mg/kg	ED						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	15.4	1.6	0.16	mg/kg	NDB						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	31500	40.3	2.6	mg/kg	ED						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	16	1.6	0.064	mg/kg	D						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	4170	80.6	1.5	mg/kg	D						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	935	1.6	0.046	mg/kg	ED						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.033	0.032	0.0093	mg/kg							N	1
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.58	4	0.23	mg/kg	JND						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	15.7	0.81	0.071	mg/kg	NED						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-09-7	Potassium	2420	806	1.6	mg/kg	D						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7782-49-2	Selenium	0.85	4	0.78	mg/kg	JND						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-22-4	Silver	0.04	0.24	0.015	mg/kg	JDB						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-23-5	Sodium	80.4	806	7.6	mg/kg	JND						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	21.3	1.6	0.074	mg/kg	D	J	19	12			N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-28-0	Thallium	0.25	1.6	0.14	mg/kg	JDB	U	06A				N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	1990	1.6	0.24	mg/kg	D						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-62-2	Vanadium	89.8	8.1	2	mg/kg	D						N	10

Attachment 1

Summary of Analytical Results
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	70.7	8.1	0.4	mg/kg	EDB						N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	27700	80	2.2	mg/kg	D						N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.14	0.8	0.14	mg/kg	UD	U					N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-38-2	Arsenic	5.3	4	0.49	mg/kg	D						N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	178	4	0.18	mg/kg	D						N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-41-7	Beryllium	1.1	0.16	0.026	mg/kg	D						N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.33	0.4	0.11	mg/kg	JD	J	15				N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-70-2	Calcium	1780	800	4.5	mg/kg	D						N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	28.4	1.6	0.22	mg/kg	DB						N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	13.5	0.8	0.014	mg/kg	DB						N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	19.3	1.6	0.16	mg/kg	D						N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	30800	40	2.6	mg/kg	D						N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	15.4	1.6	0.063	mg/kg	D						N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	4380	80	1.4	mg/kg	D						N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	737	1.6	0.046	mg/kg	D						N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.035	0.029	0.0085	mg/kg		U	06A				N	1
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.42	4	0.23	mg/kg	JD	J	15				N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	17.3	0.8	0.07	mg/kg	D						N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-09-7	Potassium	1820	800	1.6	mg/kg	D						N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7782-49-2	Selenium	0.78	4	0.78	mg/kg	UD	U					N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-22-4	Silver	0.034	0.24	0.015	mg/kg	JDB	J	15				N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-23-5	Sodium	57.2	800	7.5	mg/kg	JD	J	15				N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	12.8	1.6	0.074	mg/kg	D	J	12				N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-28-0	Thallium	0.23	1.6	0.14	mg/kg	JD	J	15				N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	1130	1.6	0.24	mg/kg	D						N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-62-2	Vanadium	73.8	8	2	mg/kg	D						N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	59.9	8	0.39	mg/kg	DB						N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	29900	80	2.2	mg/kg	D						N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.22	0.8	0.14	mg/kg	JD	J	15				N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-38-2	Arsenic	11.5	4	0.49	mg/kg	D						N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	198	4	0.18	mg/kg	D						N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-41-7	Beryllium	1.1	0.16	0.026	mg/kg	D						N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.16	0.4	0.11	mg/kg	JD	J	15				N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-70-2	Calcium	2300	800	4.5	mg/kg	D						N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	43	1.6	0.22	mg/kg	DB						N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	19.4	0.8	0.014	mg/kg	DB						N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	36.8	1.6	0.16	mg/kg	D						N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	43200	40	2.6	mg/kg	D						N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	16.3	1.6	0.063	mg/kg	D						N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	4430	80	1.4	mg/kg	D						N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	1050	1.6	0.046	mg/kg	D						N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.034	0.026	0.0077	mg/kg		U	06A				N	1
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.71	4	0.23	mg/kg	JD	J	15				N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	24.6	0.8	0.07	mg/kg	D						N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-09-7	Potassium	2460	800	1.6	mg/kg	D						N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7782-49-2	Selenium	0.92	4	0.78	mg/kg	JD	J	15				N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-22-4	Silver	0.031	0.24	0.015	mg/kg	JDB	J	15				N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-23-5	Sodium	43.3	800	7.5	mg/kg	JD	J	15				N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	22.5	1.6	0.074	mg/kg	D	J	12				N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-28-0	Thallium	0.34	1.6	0.14	mg/kg	JD	J	15				N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	298	1.6	0.24	mg/kg	D						N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-62-2	Vanadium	91.8	8	2	mg/kg	D						N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	77.7	8	0.39	mg/kg	DB						N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	38200	82.6	2.2	mg/kg	D						N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.14	0.83	0.14	mg/kg	UD	U					N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-38-2	Arsenic	7.6	4.1	0.5	mg/kg	D						N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	246	4.1	0.19	mg/kg	D						N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-41-7	Beryllium	1.3	0.17	0.026	mg/kg	D						N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.41	0.41	0.12	mg/kg	JD						N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-70-2	Calcium	3130	826	4.6	mg/kg	D						N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	38.4	1.7	0.23	mg/kg	DB						N	10

Attachment 1

Summary of Analytical Results
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	16.1	0.83	0.014	mg/kg	DB						N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	37.8	1.7	0.17	mg/kg	D						N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	52400	41.3	2.6	mg/kg	D						N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	13.5	1.7	0.065	mg/kg	D						N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	6830	82.6	1.5	mg/kg	D						N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	1050	1.7	0.047	mg/kg	D						N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.052	0.031	0.0089	mg/kg		U	06A				N	1
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.87	4.1	0.24	mg/kg	JD	J	15				N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	27.6	0.83	0.073	mg/kg	D						N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-09-7	Potassium	2130	826	1.7	mg/kg	D						N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7782-49-2	Selenium	1.1	4.1	0.8	mg/kg	JD	J	15				N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-22-4	Silver	0.13	0.25	0.016	mg/kg	JDB	J	15				N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-23-5	Sodium	102	826	7.8	mg/kg	JD	J	15				N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	30.1	1.7	0.076	mg/kg	D	J	12				N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-28-0	Thallium	0.25	1.7	0.14	mg/kg	JD	J	15				N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	380	1.7	0.25	mg/kg	D						N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-62-2	Vanadium	89.6	8.3	2.1	mg/kg	D						N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	104	8.3	0.4	mg/kg	DB						N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	18800	80.6	2.2	mg/kg	D						N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.14	0.81	0.14	mg/kg	UND	U					N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-38-2	Arsenic	3.3	4	0.49	mg/kg	JD	J	15				N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	154	4	0.19	mg/kg	DB						N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-41-7	Beryllium	0.43	0.16	0.026	mg/kg	D						N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.13	0.4	0.11	mg/kg	JD	J	15				N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-70-2	Calcium	1940	806	4.5	mg/kg	D						N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	18.8	1.6	0.23	mg/kg	EDB						N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	9.3	0.4	0.014	mg/kg	D						N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	12.3	1.6	0.16	mg/kg	D						N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	19300	40.3	2.6	mg/kg	D						N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	8.8	1.6	0.064	mg/kg	D						N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	1220	80.6	1.5	mg/kg	D						N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	998	1.6	0.046	mg/kg	DB						N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.036	0.028	0.008	mg/kg							N	1
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.3	4	0.23	mg/kg	JD	J	15				N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	7.4	0.81	0.071	mg/kg	D						N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-09-7	Potassium	1110	806	1.6	mg/kg	ND						N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7782-49-2	Selenium	0.78	4	0.78	mg/kg	UD	U					N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-22-4	Silver	0.035	0.24	0.015	mg/kg	JDB	J	15				N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-23-5	Sodium	29.7	806	7.6	mg/kg	JD	J	15				N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	14.5	1.6	0.074	mg/kg	D	J	19	12			N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-28-0	Thallium	0.27	1.6	0.14	mg/kg	JD	J	15				N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	381	1.6	0.24	mg/kg	D						N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-62-2	Vanadium	45.3	8.1	2	mg/kg	D						N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	31.9	8.1	0.4	mg/kg	EDB						N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	19400	80.6	2.2	mg/kg	D						N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.14	0.81	0.14	mg/kg	UND	U					N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-38-2	Arsenic	7.2	4	0.49	mg/kg	D						N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	99.1	4	0.19	mg/kg	DB						N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-41-7	Beryllium	0.71	0.16	0.026	mg/kg	D						N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.21	0.4	0.11	mg/kg	JD	J	15				N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-70-2	Calcium	1740	806	4.5	mg/kg	D						N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	28.7	1.6	0.23	mg/kg	EDB						N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	15.7	0.4	0.014	mg/kg	D						N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	20.8	1.6	0.16	mg/kg	D						N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	35000	40.3	2.6	mg/kg	D						N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	7.5	1.6	0.064	mg/kg	D						N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	2250	80.6	1.5	mg/kg	D						N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	668	1.6	0.046	mg/kg	DB						N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.026	0.03	0.0087	mg/kg	J	J	15				N	1
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.37	4	0.23	mg/kg	JD	J	15				N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	10.7	0.81	0.071	mg/kg	D						N	10

Attachment 1

Summary of Analytical Results
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-09-7	Potassium	1600	806	1.6	mg/kg	ND						N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7782-49-2	Selenium	0.78	4	0.78	mg/kg	UD	U					N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-22-4	Silver	0.031	0.24	0.015	mg/kg	JDB	J	15				N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-23-5	Sodium	35.8	806	7.6	mg/kg	JD	J	15				N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	20.2	1.6	0.074	mg/kg	D	J	19	12			N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-28-0	Thallium	0.15	1.6	0.14	mg/kg	JD	J	15				N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	292	1.6	0.24	mg/kg	D						N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-62-2	Vanadium	55.6	8.1	2	mg/kg	D						N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	39.8	8.1	0.4	mg/kg	EDB						N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	19700	79.4	2.1	mg/kg	D						N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.14	0.79	0.13	mg/kg	JND	J	15				N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-38-2	Arsenic	5.8	4	0.48	mg/kg	D						N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	117	4	0.18	mg/kg	DB						N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-41-7	Beryllium	0.67	0.16	0.025	mg/kg	D						N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.2	0.4	0.11	mg/kg	JD	J	15				N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-70-2	Calcium	1350	794	4.4	mg/kg	D						N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	30.8	1.6	0.22	mg/kg	EDB						N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	11.8	0.4	0.013	mg/kg	D						N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	15.2	1.6	0.16	mg/kg	D						N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	26600	39.7	2.5	mg/kg	D						N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	17.2	1.6	0.063	mg/kg	D						N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	2250	79.4	1.4	mg/kg	D						N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	623	1.6	0.045	mg/kg	DB						N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.041	0.03	0.0088	mg/kg							N	1
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.4	4	0.23	mg/kg	JD	J	15				N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	10.9	0.79	0.07	mg/kg	D						N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-09-7	Potassium	1150	794	1.6	mg/kg	ND						N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7782-49-2	Selenium	0.77	4	0.77	mg/kg	UD	U					N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-22-4	Silver	0.026	0.24	0.015	mg/kg	JDB	J	15				N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-23-5	Sodium	35	794	7.5	mg/kg	JD	J	15				N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	12.3	1.6	0.073	mg/kg	D	J	19	12			N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-28-0	Thallium	0.19	1.6	0.13	mg/kg	JD	J	15				N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	645	1.6	0.24	mg/kg	D						N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-62-2	Vanadium	60.2	7.9	2	mg/kg	D						N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	40.2	7.9	0.39	mg/kg	EDB						N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7429-90-5	Aluminum	20400	75.8	2	mg/kg	D						N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.16	0.76	0.13	mg/kg	JND	J	15				N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7440-38-2	Arsenic	5.9	3.8	0.46	mg/kg	D						N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7440-39-3	Barium	121	3.8	0.17	mg/kg	DB						N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7440-41-7	Beryllium	0.68	0.15	0.024	mg/kg	D						N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.18	0.38	0.11	mg/kg	JD	J	15				N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7440-70-2	Calcium	1360	758	4.2	mg/kg	D						N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7440-47-3	Chromium	26.8	1.5	0.21	mg/kg	EDB						N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7440-48-4	Cobalt	12.1	0.38	0.013	mg/kg	D						N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7440-50-8	Copper	15.4	1.5	0.15	mg/kg	D						N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7439-89-6	Iron	26700	37.9	2.4	mg/kg	D						N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7439-92-1	Lead	17.6	1.5	0.06	mg/kg	D						N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7439-95-4	Magnesium	2370	75.8	1.4	mg/kg	D						N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7439-96-5	Manganese	643	1.5	0.043	mg/kg	DB						N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.031	0.029	0.0083	mg/kg							N	1
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.42	3.8	0.22	mg/kg	JD	J	15				N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7440-02-0	Nickel	11.5	0.76	0.067	mg/kg	D						N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7440-09-7	Potassium	1190	758	1.5	mg/kg	ND						N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7782-49-2	Selenium	0.73	3.8	0.73	mg/kg	UD	U					N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7440-22-4	Silver	0.029	0.23	0.014	mg/kg	JDB	J	15				N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7440-23-5	Sodium	36.7	758	7.1	mg/kg	JD	J	15				N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7440-24-6	Strontium	12.4	1.5	0.07	mg/kg	D	J	19	12			N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7440-28-0	Thallium	0.17	1.5	0.13	mg/kg	JD	J	15				N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7440-32-6	Titanium	658	1.5	0.23	mg/kg	D						N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7440-62-2	Vanadium	63.4	7.6	1.9	mg/kg	D						N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7440-66-6	Zinc	40.8	7.6	0.37	mg/kg	EDB						N	10

Attachment 1

Summary of Analytical Results
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7429-90-5	Aluminum	36900	82.6	2.2	mg/kg	D						N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-36-0	Antimony	0.14	0.83	0.14	mg/kg	UND	U					N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-38-2	Arsenic	1.6	4.1	0.5	mg/kg	JD	J	15				N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-39-3	Barium	142	4.1	0.19	mg/kg	DB						N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-41-7	Beryllium	0.74	0.17	0.026	mg/kg	D						N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-43-9	Cadmium	0.85	0.41	0.12	mg/kg	D						N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-70-2	Calcium	8060	826	4.6	mg/kg	D						N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-47-3	Chromium	100	1.7	0.23	mg/kg	EDB						N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-48-4	Cobalt	45.8	0.41	0.014	mg/kg	D						N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-50-8	Copper	134	3.3	0.33	mg/kg	DB						N	20
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7439-89-6	Iron	76000	41.3	2.6	mg/kg	D						N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7439-92-1	Lead	2.7	1.7	0.065	mg/kg	D						N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7439-95-4	Magnesium	12000	82.6	1.5	mg/kg	D						N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7439-96-5	Manganese	1290	1.7	0.047	mg/kg	DB						N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7439-97-6	Mercury	0.049	0.026	0.0074	mg/kg							N	1
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7439-98-7	Molybdenum	0.4	4.1	0.24	mg/kg	JD	J	15				N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-02-0	Nickel	44.2	0.83	0.073	mg/kg	D						N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-09-7	Potassium	568	826	1.7	mg/kg	JND	J	15				N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7782-49-2	Selenium	1	4.1	0.8	mg/kg	JD	J	15				N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-22-4	Silver	0.13	0.25	0.016	mg/kg	JDB	J	15				N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-23-5	Sodium	483	826	7.8	mg/kg	JD	J	15				N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-24-6	Strontium	52.4	1.7	0.076	mg/kg	D	J	19	12			N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-28-0	Thallium	0.14	1.7	0.14	mg/kg	UD	U					N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-32-6	Titanium	4610	3.3	0.5	mg/kg	D						N	20
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-62-2	Vanadium	244	8.3	2.1	mg/kg	D						N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-66-6	Zinc	81.2	8.3	0.4	mg/kg	EDB						N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7429-90-5	Aluminum	20400	79.4	2.1	mg/kg	D						N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-36-0	Antimony	0.13	0.79	0.13	mg/kg	UD	U					N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-38-2	Arsenic	6	4	0.48	mg/kg	D						N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-39-3	Barium	140	4	0.18	mg/kg	D						N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-41-7	Beryllium	0.8	0.16	0.025	mg/kg	D						N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-43-9	Cadmium	0.34	0.4	0.11	mg/kg	JD	J	15				N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-70-2	Calcium	3960	794	4.4	mg/kg	D						N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-47-3	Chromium	17.5	1.6	0.22	mg/kg	DB						N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-48-4	Cobalt	13.1	0.79	0.013	mg/kg	DB						N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-50-8	Copper	23.8	1.6	0.16	mg/kg	D						N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7439-89-6	Iron	53900	39.7	2.5	mg/kg	D						N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7439-92-1	Lead	8.8	1.6	0.063	mg/kg	D						N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7439-95-4	Magnesium	4580	79.4	1.4	mg/kg	D						N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7439-96-5	Manganese	589	1.6	0.045	mg/kg	D						N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7439-97-6	Mercury	0.019	0.027	0.0079	mg/kg	J	U	06A				N	1
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7439-98-7	Molybdenum	0.55	4	0.23	mg/kg	JD	J	15				N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-02-0	Nickel	15.6	0.79	0.07	mg/kg	D						N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-09-7	Potassium	1540	794	1.6	mg/kg	D						N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7782-49-2	Selenium	0.77	4	0.77	mg/kg	UD	U					N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-22-4	Silver	0.054	0.24	0.015	mg/kg	JDB	J	15				N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-23-5	Sodium	128	794	7.5	mg/kg	JD	J	15				N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-24-6	Strontium	21.3	1.6	0.073	mg/kg	D	J	12				N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-28-0	Thallium	0.13	1.6	0.13	mg/kg	UD	U					N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-32-6	Titanium	908	1.6	0.24	mg/kg	D						N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-62-2	Vanadium	72.5	7.9	2	mg/kg	D						N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-66-6	Zinc	92.4	7.9	0.39	mg/kg	DB						N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7429-90-5	Aluminum	21200	78.7	2.1	mg/kg	D						N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7440-36-0	Antimony	0.13	0.79	0.13	mg/kg	UD	U					N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7440-38-2	Arsenic	5.6	3.9	0.48	mg/kg	D						N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7440-39-3	Barium	173	3.9	0.18	mg/kg	D						N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7440-41-7	Beryllium	0.84	0.16	0.025	mg/kg	D						N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7440-43-9	Cadmium	0.22	0.39	0.11	mg/kg	JD	J	15				N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7440-70-2	Calcium	3160	787	4.4	mg/kg	D						N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7440-47-3	Chromium	21	1.6	0.22	mg/kg	DB						N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7440-48-4	Cobalt	9.8	0.79	0.013	mg/kg	DB						N	10

Attachment 1

Summary of Analytical Results
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7440-50-8	Copper	17.4	1.6	0.16	mg/kg	D						N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7439-89-6	Iron	35600	39.4	2.5	mg/kg	D						N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7439-92-1	Lead	11.1	1.6	0.062	mg/kg	D						N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7439-95-4	Magnesium	4410	78.7	1.4	mg/kg	D						N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7439-96-5	Manganese	451	1.6	0.045	mg/kg	D						N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7439-97-6	Mercury	0.051	0.03	0.0086	mg/kg		U	06A				N	1
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7439-98-7	Molybdenum	0.56	3.9	0.23	mg/kg	JD	J	15				N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7440-02-0	Nickel	16.5	0.79	0.069	mg/kg	D						N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7440-09-7	Potassium	1660	787	1.6	mg/kg	D						N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7782-49-2	Selenium	0.76	3.9	0.76	mg/kg	UD	U					N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7440-22-4	Silver	0.056	0.24	0.015	mg/kg	JDB	J	15				N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7440-23-5	Sodium	96	787	7.4	mg/kg	JD	J	15				N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7440-24-6	Strontium	25.9	1.6	0.072	mg/kg	D	J	12				N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7440-28-0	Thallium	0.22	1.6	0.13	mg/kg	JD	J	15				N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7440-32-6	Titanium	564	1.6	0.24	mg/kg	D						N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7440-62-2	Vanadium	40.4	7.9	2	mg/kg	D						N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7440-66-6	Zinc	72.5	7.9	0.39	mg/kg	DB						N	10
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7429-90-5	Aluminum	65.1	100	5.5	ug/L	J	J	15				N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7440-36-0	Antimony	0.17	1	0.13	ug/L	J	J	15				N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7440-38-2	Arsenic	1	5	1	ug/L	U	U					N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7440-39-3	Barium	20	5	0.15	ug/L	B						N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7440-41-7	Beryllium	0.028	0.2	0.028	ug/L	U	U					N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7440-43-9	Cadmium	0.17	0.5	0.17	ug/L	U	U					N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7440-70-2	Calcium	17800	1000	45.4	ug/L							N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7440-47-3	Chromium	1.3	2	1.3	ug/L	U	U					N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7440-48-4	Cobalt	0.28	1	0.016	ug/L	JB	J	15				N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7440-50-8	Copper	9.7	2	0.43	ug/L							N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7439-89-6	Iron	188	50	5.5	ug/L							N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7439-92-1	Lead	0.5	2	0.18	ug/L	J	J	15				N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7439-95-4	Magnesium	6850	100	4.8	ug/L							N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7439-96-5	Manganese	85.2	2	0.39	ug/L							N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7439-97-6	Mercury	0.034	0.2	0.034	ug/L	U	U					N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7439-98-7	Molybdenum	1.2	5	0.12	ug/L	J	J	15				N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7440-02-0	Nickel	1.8	1	0.15	ug/L							N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7440-09-7	Potassium	469	1000	13.8	ug/L	J	J	15				N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7782-49-2	Selenium	0.75	5	0.75	ug/L	U	U					N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7440-22-4	Silver	0.029	0.3	0.029	ug/L	UB	U					N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7440-23-5	Sodium	8990	1000	12.5	ug/L							N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7440-24-6	Strontium	73.8	2	0.17	ug/L		J	19	12			N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7440-28-0	Thallium	0.074	2	0.074	ug/L	UB	U					N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7440-32-6	Titanium	5.4	2	0.29	ug/L							N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7440-62-2	Vanadium	4.6	10	2.5	ug/L	J	J	15				N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7440-66-6	Zinc	45.3	10	1.8	ug/L							N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Perchlorate	14797-73-0	Perchlorate	0.0612	0.2	0.0612	ug/L	U	UJ	19	05B			Y	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7429-90-5	Aluminum	22.9	100	5.5	ug/L	J	U	06A				N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7440-36-0	Antimony	0.13	1	0.13	ug/L	U	U					N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7440-38-2	Arsenic	1.3	5	1	ug/L	J	J	15				N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7440-39-3	Barium	0.95	5	0.15	ug/L	JB	U	06A				N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7440-41-7	Beryllium	0.028	0.2	0.028	ug/L	U	U					N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7440-43-9	Cadmium	0.17	0.5	0.17	ug/L	U	U					N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7440-70-2	Calcium	1520	1000	45.4	ug/L							N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7440-47-3	Chromium	1.3	2	1.3	ug/L	U	U					N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7440-48-4	Cobalt	0.021	1	0.016	ug/L	J	J	15				N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7440-50-8	Copper	1.4	2	0.43	ug/L	J	J	15				N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7439-89-6	Iron	27.6	50	5.5	ug/L	J	J	15				N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7439-92-1	Lead	0.28	2	0.18	ug/L	J	J	15				N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7439-95-4	Magnesium	24.5	100	4.8	ug/L	J	J	15				N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7439-96-5	Manganese	1.5	2	0.39	ug/L	J	J	15				N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7439-97-6	Mercury	0.034	0.2	0.034	ug/L	U	U					N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7439-98-7	Molybdenum	1.8	5	0.12	ug/L	J	J	15				N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7440-02-0	Nickel	1.1	1	0.15	ug/L	B						N	1

Attachment 1

Summary of Analytical Results
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7440-09-7	Potassium	150	1000	13.8	ug/L	J	J	15				N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7782-49-2	Selenium	0.75	5	0.75	ug/L	UN	U					N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7440-22-4	Silver	0.029	0.3	0.029	ug/L	UB	U					N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7440-23-5	Sodium	97900	1000	12.5	ug/L							N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7440-24-6	Strontium	1.8	2	0.17	ug/L	J	J	19	12	15		N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7440-28-0	Thallium	0.074	2	0.074	ug/L	U	U					N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7440-32-6	Titanium	0.76	2	0.29	ug/L	J	J	15				N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7440-62-2	Vanadium	2.5	10	2.5	ug/L	U	U					N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7440-66-6	Zinc	10.3	10	1.8	ug/L							N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Perchlorate	14797-73-0	Perchlorate	0.0612	0.2	0.0612	ug/L	U	U					Y	1

REG - regular field sample
FD - field duplicate
SS - surface soil (0 - 0.5ft)
SD - sediment
GW - groundwater
PQL - practical quantitation limit
MDL - method detection limit
LQ - laboratory qualifier
VQ - validation qualifier
R1 - reason code no. 1
R2 - reason code no. 2
R3 - reason code no. 3
R4 - reason code no. 4
Fil - filtered
DF - dilution factor
RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine
Tetryl - methyl-2,4,6-trinitrophenylnitramine
HMX - octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
PETN - pentaerythritol tetranitrate

ATTACHMENT 2

Summary of Analytical Results greater than the MDL

Attachment 2

Summary of Analytical Results greater than the MDL
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A001	NWO-017-0001	24-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	45.5	1.6	0.062	mg/kg	D						N	10
017A002	NWO-017-0002	31-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	13.4	3.2	0.13	mg/kg	D						N	20
017A003	NWO-017-0003	31-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	73.2	1.7	0.067	mg/kg	D						N	10
017A004	NWO-017-0004	31-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	4.5	1.8	0.07	mg/kg	D						N	10
017A005	NWO-017-0005	31-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	16.2	1.7	0.068	mg/kg	D						N	10
017A006	NWO-017-0006	31-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	10.4	1.7	0.065	mg/kg	D						N	10
017A006	NWO-017-0007	31-Aug-06	FD	0.08	0.5	SS	Metals	7439-92-1	Lead	10.3	1.7	0.066	mg/kg	D						N	10
017A007	NWO-017-0008	24-Aug-06	REG	0	0.5	SS	Metals	7439-92-1	Lead	6.4	3.1	0.12	mg/kg	D						N	20
017A008	NWO-017-0009	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	17	1.8	0.071	mg/kg	D						N	10
017A009	NWO-017-1001	31-Aug-06	REG	1	3	SD	Metals	7439-92-1	Lead	7	1.8	0.069	mg/kg	D						N	10
017A010	NWO-017-3001	20-Sep-06	REG	0	0	GW	Metals	7439-92-1	Lead	0.39	2	0.18	ug/L	J	J	15				N	1
017A011	NWO-017-0010	31-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	11.1	1.7	0.065	mg/kg	D						N	10
017A012	NWO-017-0011	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	19.5	1.7	0.068	mg/kg	D						N	10
017A013	NWO-017-0012	31-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	21.4	1.7	0.067	mg/kg	D						N	10
017A014	NWO-017-0013	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	10.7	1.8	0.07	mg/kg	D						N	10
017A015	NWO-017-3002	14-Sep-06	REG	0	0	GW	Metals	7439-92-1	Lead	0.51	2	0.18	ug/L	J	J	15				N	1
017A016	NWO-017-0015R	11-Sep-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	11.8	1.7	0.066	mg/kg	D						N	10
017A017	NWO-017-0016R	11-Sep-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	8.6	1.7	0.066	mg/kg	D						N	10
017A018	NWO-017-0017R	11-Sep-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	29.1	1.7	0.068	mg/kg	D						N	10
017A019	NWO-017-0018FDR	11-Sep-06	FD	0.17	0.5	SS	Metals	7439-92-1	Lead	13.8	1.8	0.069	mg/kg	D						N	10
017A019	NWO-017-0018R	11-Sep-06	REG	0.07	0.5	SS	Metals	7439-92-1	Lead	13.5	1.8	0.071	mg/kg	D						N	10
017A020	NWO-017-3003	12-Sep-06	REG	0	0	GW	Metals	7439-92-1	Lead	0.46	2	0.18	ug/L	J	J	15				N	1
017A020	NWO-017-3004	12-Sep-06	FD	0	0	GW	Metals	7439-92-1	Lead	0.36	2	0.18	ug/L	J	J	15				N	1
017A021	NWO-017-0019	22-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	20.1	1.6	0.063	mg/kg	D						N	10
017A021	NWO-017-0019	22-Aug-06	REG	0.08	0.5	SS	PAHs	83-32-9	Acenaphthene	0.0055	0.0073	0.0011	mg/kg	J	J	15				N	1
017A021	NWO-017-0019	22-Aug-06	REG	0.08	0.5	SS	PAHs	56-55-3	Benzo(a)anthracene	0.036	0.0073	0.0015	mg/kg							N	1
017A021	NWO-017-0019	22-Aug-06	REG	0.08	0.5	SS	PAHs	50-32-8	Benzo(a)pyrene	0.06	0.0073	0.00073	mg/kg							N	1
017A021	NWO-017-0019	22-Aug-06	REG	0.08	0.5	SS	PAHs	205-99-2	Benzo(b)fluoranthene	0.063	0.0073	0.00036	mg/kg							N	1
017A021	NWO-017-0019	22-Aug-06	REG	0.08	0.5	SS	PAHs	191-24-2	Benzo(ghi)perylene	0.051	0.0073	0.0011	mg/kg							N	1
017A021	NWO-017-0019	22-Aug-06	REG	0.08	0.5	SS	PAHs	207-08-9	Benzo(k)fluoranthene	0.017	0.0073	0.0011	mg/kg							N	1
017A021	NWO-017-0019	22-Aug-06	REG	0.08	0.5	SS	PAHs	218-01-9	Chrysene	0.042	0.0073	0.00073	mg/kg							N	1
017A021	NWO-017-0019	22-Aug-06	REG	0.08	0.5	SS	PAHs	206-44-0	Fluoranthene	0.038	0.0073	0.0018	mg/kg							N	1
017A021	NWO-017-0019	22-Aug-06	REG	0.08	0.5	SS	PAHs	193-39-5	Indeno(1,2,3-cd)pyrene	0.044	0.0073	0.0011	mg/kg							N	1
017A021	NWO-017-0019	22-Aug-06	REG	0.08	0.5	SS	PAHs	85-01-8	Phenanthrene	0.015	0.0073	0.0014	mg/kg							N	1
017A021	NWO-017-0019	22-Aug-06	REG	0.08	0.5	SS	PAHs	129-00-0	Pyrene	0.044	0.0073	0.0011	mg/kg							N	1
017A022	NWO-017-0020	22-Aug-06	REG	0	0.5	SS	Metals	7439-92-1	Lead	58.4	1.6	0.063	mg/kg	D						N	10
017A022	NWO-017-0020	22-Aug-06	REG	0	0.5	SS	PAHs	206-44-0	Fluoranthene	0.0082	0.0071	0.0018	mg/kg							N	1
017A022	NWO-017-0020	22-Aug-06	REG	0	0.5	SS	PAHs	85-01-8	Phenanthrene	0.005	0.0071	0.0014	mg/kg	J	J	15				N	1
017A022	NWO-017-0020	22-Aug-06	REG	0	0.5	SS	PAHs	129-00-0	Pyrene	0.0068	0.0071	0.0011	mg/kg	J	J	15				N	1
017A023	NWO-017-0021	22-Aug-06	REG	0	0.5	SS	Metals	7439-92-1	Lead	41.1	1.6	0.063	mg/kg	D						N	10
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Metals	7429-90-5	Aluminum	22800	82	2.2	mg/kg	D						N	10
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-39-3	Barium	146	4.1	0.19	mg/kg	NDB						N	10
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-43-9	Cadmium	0.22	0.41	0.11	mg/kg	JD	J	15				N	10
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-47-3	Chromium	29.2	1.6	0.23	mg/kg	EDB						N	10
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-48-4	Cobalt	24.1	0.41	0.014	mg/kg	DB						N	10
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-50-8	Copper	28.8	1.6	0.16	mg/kg	D						N	10
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Metals	7439-89-6	Iron	31900	41	2.6	mg/kg	D						N	10
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Metals	7439-92-1	Lead	13.6	1.6	0.065	mg/kg	D						N	10
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Metals	7439-95-4	Magnesium	3760	82	1.5	mg/kg	D						N	10
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Metals	7439-96-5	Manganese	806	1.6	0.047	mg/kg	D						N	10
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Metals	7439-97-6	Mercury	0.089	0.03	0.0088	mg/kg							N	1
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Metals	7439-98-7	Molybdenum	0.6	4.1	0.24	mg/kg	JD	J	15				N	10
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-02-0	Nickel	13.8	0.82	0.072	mg/kg	D						N	10
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-24-6	Strontium	41.4	1.6	0.075	mg/kg	D						N	10
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-32-6	Titanium	539	1.6	0.25	mg/kg	D						N	10
017A024	NWO-017-0022	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-66-6	Zinc	52.1	8.2	0.4	mg/kg	EDB						N	10
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	15200	73	2	mg/kg	D						N	10
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	96.1	3.6	0.17	mg/kg	NDB						N	10
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.13	0.36	0.1	mg/kg	JD	J	15				N	10
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	23.6	1.5	0.2	mg/kg	EDB						N	10
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	8.8	0.36	0.012	mg/kg	DB						N	10
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	11.9	1.5	0.15	mg/kg	D						N	10

Attachment 2

Summary of Analytical Results greater than the MDL
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	26400	36.5	2.3	mg/kg	D						N	10
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	7.9	1.5	0.058	mg/kg	D						N	10
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	858	73	1.3	mg/kg	D						N	10
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	600	1.5	0.042	mg/kg	D						N	10
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.034	0.029	0.0084	mg/kg							N	1
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.34	3.6	0.21	mg/kg	JD	J	15				N	10
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	7.4	0.73	0.064	mg/kg	D						N	10
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	6	1.5	0.067	mg/kg	D						N	10
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	360	1.5	0.22	mg/kg	D						N	10
017A025	NWO-017-0023	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	28.6	7.3	0.36	mg/kg	EDB						N	10
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	13500	76.9	2.1	mg/kg	D						N	10
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	77.4	3.8	0.18	mg/kg	DB						N	10
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.18	0.38	0.11	mg/kg	JD	J	15				N	10
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	20.4	1.5	0.22	mg/kg	EDB						N	10
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	12.1	0.38	0.013	mg/kg	D						N	10
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	10.2	1.5	0.15	mg/kg	D						N	10
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	19900	38.5	2.5	mg/kg	D						N	10
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	9.1	1.5	0.061	mg/kg	D						N	10
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	696	76.9	1.4	mg/kg	D						N	10
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	515	1.5	0.044	mg/kg	DB						N	10
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.028	0.026	0.0074	mg/kg							N	1
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.29	3.8	0.22	mg/kg	JD	J	15				N	10
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	7.6	0.77	0.068	mg/kg	D						N	10
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	3.5	1.5	0.071	mg/kg	D	J	19	12			N	10
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	317	1.5	0.23	mg/kg	D						N	10
017A026	NWO-017-0024	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	22.6	7.7	0.38	mg/kg	EDB						N	10
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	17100	74.1	2	mg/kg	D						N	10
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	123	3.7	0.17	mg/kg	DB						N	10
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.34	0.37	0.1	mg/kg	JD	J	15				N	10
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	25.8	1.5	0.21	mg/kg	EDB						N	10
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	14	0.37	0.013	mg/kg	D						N	10
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	17	1.5	0.15	mg/kg	D						N	10
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	26700	37	2.4	mg/kg	D						N	10
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	9.8	1.5	0.059	mg/kg	D						N	10
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	1460	74.1	1.3	mg/kg	D						N	10
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	613	1.5	0.042	mg/kg	DB						N	10
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.035	0.029	0.0085	mg/kg							N	1
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.35	3.7	0.21	mg/kg	JD	J	15				N	10
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	11.4	0.74	0.065	mg/kg	D						N	10
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	5.8	1.5	0.068	mg/kg	D	J	19	12			N	10
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	341	1.5	0.22	mg/kg	D						N	10
017A027	NWO-017-0025	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	35.4	7.4	0.36	mg/kg	EDB						N	10
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Metals	7429-90-5	Aluminum	16800	79.4	2.1	mg/kg	D						N	10
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-39-3	Barium	163	4	0.18	mg/kg	DB						N	10
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-43-9	Cadmium	0.27	0.4	0.11	mg/kg	JD	J	15				N	10
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-47-3	Chromium	22	1.6	0.22	mg/kg	EDB						N	10
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-48-4	Cobalt	12.2	0.4	0.013	mg/kg	D						N	10
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-50-8	Copper	17.7	1.6	0.16	mg/kg	D						N	10
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Metals	7439-89-6	Iron	18700	39.7	2.5	mg/kg	D						N	10
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Metals	7439-92-1	Lead	13.8	1.6	0.063	mg/kg	D						N	10
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Metals	7439-95-4	Magnesium	2120	79.4	1.4	mg/kg	D						N	10
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Metals	7439-96-5	Manganese	375	1.6	0.045	mg/kg	DB						N	10
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Metals	7439-97-6	Mercury	0.042	0.024	0.0069	mg/kg							N	1
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Metals	7439-98-7	Molybdenum	0.3	4	0.23	mg/kg	JD	J	15				N	10
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-02-0	Nickel	12.7	0.79	0.07	mg/kg	D						N	10
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-24-6	Strontium	22.4	1.6	0.073	mg/kg	D	J	19	12			N	10
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-32-6	Titanium	489	1.6	0.24	mg/kg	D						N	10
017A028	NWO-017-1002	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-66-6	Zinc	41.1	7.9	0.39	mg/kg	EDB						N	10
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Metals	7429-90-5	Aluminum	19200	81.3	2.2	mg/kg	D						N	10
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Metals	7440-39-3	Barium	142	4.1	0.19	mg/kg	NDB						N	10
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Metals	7440-43-9	Cadmium	0.16	0.41	0.11	mg/kg	JD	J	15				N	10
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Metals	7440-47-3	Chromium	23.8	1.6	0.23	mg/kg	EDB						N	10

Attachment 2

Summary of Analytical Results greater than the MDL
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Metals	7440-48-4	Cobalt	12.4	0.41	0.014	mg/kg	DB						N	10
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Metals	7440-50-8	Copper	12.1	1.6	0.16	mg/kg	D						N	10
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Metals	7439-89-6	Iron	27800	40.7	2.6	mg/kg	D						N	10
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Metals	7439-92-1	Lead	11.9	1.6	0.064	mg/kg	D						N	10
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Metals	7439-95-4	Magnesium	1730	81.3	1.5	mg/kg	D						N	10
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Metals	7439-96-5	Manganese	712	1.6	0.046	mg/kg	D						N	10
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Metals	7439-97-6	Mercury	0.058	0.028	0.0083	mg/kg							N	1
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Metals	7439-98-7	Molybdenum	0.36	4.1	0.24	mg/kg	JD	J	15				N	10
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Metals	7440-02-0	Nickel	10.6	0.81	0.072	mg/kg	D						N	10
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Metals	7440-24-6	Strontium	39	1.6	0.075	mg/kg	D						N	10
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Metals	7440-32-6	Titanium	206	1.6	0.24	mg/kg	D						N	10
017A029	NWO-017-1003	23-Aug-06	REG	0	0.5	SD	Metals	7440-66-6	Zinc	34.3	8.1	0.4	mg/kg	EDB						N	10
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Explosives	99-65-0	1,3-Dinitrobenzene	0.038	0.2	0.028	ug/L	J	J	15	08A			N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Explosives	118-96-7	2,4,6-Trinitrotoluene	0.077	0.2	0.05	ug/L	J	J	15	18	08A	08B	N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Explosives	121-14-2	2,4-Dinitrotoluene	0.027	0.2	0.022	ug/L	J	J	15	18	08A	08B	N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Explosives	35572-78-2	2-Amino-4,6-dinitrotoluene	0.072	0.2	0.044	ug/L	J	J	15	18	08B		N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Explosives	19406-51-0	4-Amino-2,6-Dinitrotoluene	0.079	0.2	0.034	ug/L	J	J	15	18	08B		N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Explosives	2691-41-0	HMX	0.14	0.4	0.021	ug/L	J	J	15	18	11A	08A	N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Metals	7440-39-3	Barium	10	5	0.15	ug/L	B						N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Metals	7440-50-8	Copper	2.3	2	0.43	ug/L							N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Metals	7439-89-6	Iron	36.9	50	5.5	ug/L	J	J	15				N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Metals	7439-95-4	Magnesium	7500	100	4.8	ug/L							N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Metals	7439-96-5	Manganese	32.1	2	0.39	ug/L							N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Metals	7439-98-7	Molybdenum	0.45	5	0.12	ug/L	J	J	15				N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Metals	7440-02-0	Nickel	1	1	0.15	ug/L	B						N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Metals	7440-24-6	Strontium	197	2	0.17	ug/L		J	19	12			N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Metals	7440-32-6	Titanium	0.9	2	0.29	ug/L	J	J	15				N	1
017A030	NWO-017-3005	20-Sep-06	REG	0	0	GW	Metals	7440-66-6	Zinc	13.8	10	1.8	ug/L							N	1
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	21500	84	2.3	mg/kg	D						N	10
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.19	0.84	0.14	mg/kg	JND	J	15				N	10
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	179	4.2	0.19	mg/kg	NDB						N	10
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.3	0.42	0.12	mg/kg	JD	J	15				N	10
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	27.5	1.7	0.24	mg/kg	EDB						N	10
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	14.9	0.42	0.014	mg/kg	DB						N	10
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	39.6	1.7	0.17	mg/kg	D						N	10
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	32100	42	2.7	mg/kg	D						N	10
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	13	1.7	0.066	mg/kg	D						N	10
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	4880	84	1.5	mg/kg	D						N	10
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	740	1.7	0.048	mg/kg	D						N	10
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.041	0.03	0.0088	mg/kg							N	1
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.61	4.2	0.24	mg/kg	JD	J	15				N	10
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	18.8	0.84	0.074	mg/kg	D						N	10
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	41	1.7	0.077	mg/kg	D						N	10
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	1560	1.7	0.25	mg/kg	D						N	10
017A031	NWO-017-0027	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	82.3	8.4	0.41	mg/kg	EDB						N	10
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	24100	78.1	2.1	mg/kg	D						N	10
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.16	0.78	0.13	mg/kg	JND	J	15				N	10
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	168	3.9	0.18	mg/kg	NDB						N	10
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.31	0.39	0.11	mg/kg	JD	J	15				N	10
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	29.1	1.6	0.22	mg/kg	EDB						N	10
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	16	0.39	0.013	mg/kg	DB						N	10
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	18.6	1.6	0.16	mg/kg	D						N	10
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	31300	39.1	2.5	mg/kg	D						N	10
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	14.9	1.6	0.062	mg/kg	D						N	10
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	4590	78.1	1.4	mg/kg	D						N	10
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	856	1.6	0.045	mg/kg	D						N	10
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.024	0.033	0.0095	mg/kg	J	U	06B				N	1
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.48	3.9	0.23	mg/kg	JD	J	15				N	10
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	17.8	0.78	0.069	mg/kg	D						N	10
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	23.4	1.6	0.072	mg/kg	D						N	10
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	1680	1.6	0.23	mg/kg	D						N	10
017A032	NWO-017-0028	23-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	71.9	7.8	0.38	mg/kg	EDB						N	10

Attachment 2

Summary of Analytical Results greater than the MDL
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	21800	160	4.3	mg/kg	D						N	20
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	182	8	0.37	mg/kg	D						N	20
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.39	0.8	0.22	mg/kg	JD	J	15				N	20
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	32.2	3.2	0.45	mg/kg	EDB						N	20
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	16.4	0.8	0.027	mg/kg	DB						N	20
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	17.3	3.2	0.32	mg/kg	DB						N	20
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	30800	80	5.1	mg/kg	D						N	20
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	15.1	3.2	0.13	mg/kg	D						N	20
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	4000	160	2.9	mg/kg	D						N	20
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	952	3.2	0.091	mg/kg	D						N	20
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.026	0.026	0.0075	mg/kg							N	1
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	17.9	1.6	0.14	mg/kg	DB						N	20
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	25.3	3.2	0.15	mg/kg	D	J	19	12			N	20
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	1490	3.2	0.48	mg/kg	D						N	20
017A033	NWO-017-0029	24-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	63.3	16	0.78	mg/kg	EDB						N	20
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Metals	7429-90-5	Aluminum	21600	82	2.2	mg/kg	D						N	10
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-36-0	Antimony	0.16	0.82	0.14	mg/kg	JND	J	15				N	10
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-39-3	Barium	141	4.1	0.19	mg/kg	NDB						N	10
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-43-9	Cadmium	0.24	0.41	0.11	mg/kg	JD	J	15				N	10
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-47-3	Chromium	31.6	1.6	0.23	mg/kg	EDB						N	10
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-48-4	Cobalt	22.5	0.41	0.014	mg/kg	DB						N	10
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-50-8	Copper	36.7	1.6	0.16	mg/kg	D						N	10
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Metals	7439-89-6	Iron	37100	41	2.6	mg/kg	D						N	10
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Metals	7439-92-1	Lead	22.9	1.6	0.065	mg/kg	D						N	10
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Metals	7439-95-4	Magnesium	2890	82	1.5	mg/kg	D						N	10
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Metals	7439-96-5	Manganese	724	1.6	0.047	mg/kg	D						N	10
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Metals	7439-97-6	Mercury	0.086	0.032	0.0093	mg/kg							N	1
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Metals	7439-98-7	Molybdenum	0.55	4.1	0.24	mg/kg	JD	J	15				N	10
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-02-0	Nickel	13.5	0.82	0.072	mg/kg	D						N	10
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-24-6	Strontium	27.9	1.6	0.075	mg/kg	D						N	10
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-32-6	Titanium	312	1.6	0.25	mg/kg	D						N	10
017A034	NWO-017-0030	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-66-6	Zinc	59.5	8.2	0.4	mg/kg	EDB						N	10
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	23500	82	2.2	mg/kg	D						N	10
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	139	4.1	0.19	mg/kg	D						N	10
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.19	0.41	0.11	mg/kg	JD	J	15				N	10
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	26.1	1.6	0.23	mg/kg	DB						N	10
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	13.6	0.82	0.014	mg/kg	DB						N	10
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	16.9	1.6	0.16	mg/kg	D						N	10
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	25700	41	2.6	mg/kg	D						N	10
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	12.8	1.6	0.065	mg/kg	D						N	10
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	2980	82	1.5	mg/kg	D						N	10
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	770	1.6	0.047	mg/kg	D						N	10
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.043	0.032	0.0092	mg/kg		U	06A				N	1
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.38	4.1	0.24	mg/kg	JD	J	15				N	10
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	13	0.82	0.072	mg/kg	D						N	10
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	12.7	1.6	0.075	mg/kg	D	J	12				N	10
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	865	1.6	0.25	mg/kg	D						N	10
017A035	NWO-017-0031	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	42.8	8.2	0.4	mg/kg	DB						N	10
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	25200	78.1	2.1	mg/kg	D						N	10
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	112	3.9	0.18	mg/kg	D						N	10
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.16	0.39	0.11	mg/kg	JD	J	15				N	10
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	24.9	1.6	0.22	mg/kg	DB						N	10
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	10.5	0.78	0.013	mg/kg	DB						N	10
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	28.2	1.6	0.16	mg/kg	D						N	10
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	28100	39.1	2.5	mg/kg	D						N	10
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	10.1	1.6	0.062	mg/kg	D						N	10
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	2270	78.1	1.4	mg/kg	D						N	10
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	615	1.6	0.045	mg/kg	D						N	10
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.027	0.028	0.008	mg/kg	J	U	06A				N	1
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.82	3.9	0.23	mg/kg	JD	J	15				N	10
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	10.6	0.78	0.069	mg/kg	D						N	10
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	19.2	1.6	0.072	mg/kg	D	J	12				N	10

Attachment 2

Summary of Analytical Results greater than the MDL
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	664	1.6	0.23	mg/kg	D						N	10
017A036	NWO-017-0032	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	64.6	7.8	0.38	mg/kg	DB						N	10
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	2680	8.1	0.22	mg/kg							N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	17.8	0.4	0.019	mg/kg							N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.032	0.04	0.011	mg/kg	J	J	15				N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	2.9	0.16	0.023	mg/kg	B	U	06A				N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	2.1	0.081	0.0014	mg/kg	B						N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	2	0.16	0.016	mg/kg							N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	3350	4	0.26	mg/kg							N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	1.6	0.16	0.0064	mg/kg							N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	419	8.1	0.15	mg/kg							N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	104	0.16	0.0046	mg/kg							N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.024	0.032	0.0093	mg/kg	J	J	15				N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.042	0.4	0.023	mg/kg	J	J	15				N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	1.6	0.081	0.0071	mg/kg							N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	2.3	0.16	0.0074	mg/kg		J	12				N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	104	0.16	0.024	mg/kg							N	1
017A037	NWO-017-0033	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	5.6	0.81	0.04	mg/kg	B						N	1
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Metals	7429-90-5	Aluminum	21500	84	2.3	mg/kg	D						N	10
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-39-3	Barium	177	4.2	0.19	mg/kg	DB						N	10
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-43-9	Cadmium	0.43	0.42	0.12	mg/kg	D						N	10
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-47-3	Chromium	26.8	1.7	0.24	mg/kg	EDB						N	10
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-48-4	Cobalt	11.5	0.42	0.014	mg/kg	D						N	10
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-50-8	Copper	26.3	1.7	0.17	mg/kg	D						N	10
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Metals	7439-89-6	Iron	37400	42	2.7	mg/kg	D						N	10
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Metals	7439-92-1	Lead	11.2	1.7	0.066	mg/kg	D						N	10
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Metals	7439-95-4	Magnesium	5080	84	1.5	mg/kg	D						N	10
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Metals	7439-96-5	Manganese	284	1.7	0.048	mg/kg	DB						N	10
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Metals	7439-97-6	Mercury	0.035	0.025	0.0072	mg/kg							N	1
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Metals	7439-98-7	Molybdenum	0.4	4.2	0.24	mg/kg	JD	J	15				N	10
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-02-0	Nickel	20.8	0.84	0.074	mg/kg	D						N	10
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-24-6	Strontium	20.1	1.7	0.077	mg/kg	D	J	19	12			N	10
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-32-6	Titanium	662	1.7	0.25	mg/kg	D						N	10
017A038	NWO-017-1004	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-66-6	Zinc	82.4	8.4	0.41	mg/kg	EDB						N	10
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Metals	7429-90-5	Aluminum	14500	83.3	2.2	mg/kg	D						N	10
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Metals	7440-39-3	Barium	125	4.2	0.19	mg/kg	DB						N	10
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Metals	7440-43-9	Cadmium	0.28	0.42	0.12	mg/kg	JD	J	15				N	10
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Metals	7440-47-3	Chromium	17.8	1.7	0.23	mg/kg	EDB						N	10
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Metals	7440-48-4	Cobalt	11.4	0.42	0.014	mg/kg	D						N	10
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Metals	7440-50-8	Copper	15.2	1.7	0.17	mg/kg	D						N	10
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Metals	7439-89-6	Iron	33000	41.7	2.7	mg/kg	D						N	10
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Metals	7439-92-1	Lead	9.9	1.7	0.066	mg/kg	D						N	10
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Metals	7439-95-4	Magnesium	3550	83.3	1.5	mg/kg	D						N	10
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Metals	7439-96-5	Manganese	419	1.7	0.048	mg/kg	DB						N	10
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Metals	7439-97-6	Mercury	0.027	0.021	0.006	mg/kg							N	1
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Metals	7439-98-7	Molybdenum	0.33	4.2	0.24	mg/kg	JD	J	15				N	10
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Metals	7440-02-0	Nickel	14.4	0.83	0.073	mg/kg	D						N	10
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Metals	7440-24-6	Strontium	16.8	1.7	0.077	mg/kg	D	J	19	12			N	10
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Metals	7440-32-6	Titanium	729	1.7	0.25	mg/kg	D						N	10
017A039	NWO-017-1005	24-Aug-06	REG	0.08	0.5	SD	Metals	7440-66-6	Zinc	67.2	8.3	0.41	mg/kg	EDB						N	10
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Metals	7429-90-5	Aluminum	16000	80	2.2	mg/kg	D						N	10
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Metals	7440-39-3	Barium	135	4	0.18	mg/kg	DB						N	10
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Metals	7440-43-9	Cadmium	0.36	0.4	0.11	mg/kg	JD	J	15				N	10
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Metals	7440-47-3	Chromium	19.4	1.6	0.22	mg/kg	EDB						N	10
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Metals	7440-48-4	Cobalt	12.5	0.4	0.014	mg/kg	D						N	10
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Metals	7440-50-8	Copper	16.8	1.6	0.16	mg/kg	D						N	10
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Metals	7439-89-6	Iron	34400	40	2.6	mg/kg	D						N	10
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Metals	7439-92-1	Lead	10.2	1.6	0.063	mg/kg	D						N	10
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Metals	7439-95-4	Magnesium	3850	80	1.4	mg/kg	D						N	10
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Metals	7439-96-5	Manganese	475	1.6	0.046	mg/kg	DB						N	10
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Metals	7439-97-6	Mercury	0.024	0.027	0.0078	mg/kg	J	J	15				N	1
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Metals	7439-98-7	Molybdenum	0.33	4	0.23	mg/kg	JD	J	15				N	10

Attachment 2

Summary of Analytical Results greater than the MDL
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Metals	7440-02-0	Nickel	15.5	0.8	0.07	mg/kg	D						N	10
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Metals	7440-24-6	Strontium	17.5	1.6	0.074	mg/kg	D	J	19	12			N	10
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Metals	7440-32-6	Titanium	742	1.6	0.24	mg/kg	D						N	10
017A039	NWO-017-1006	24-Aug-06	FD	0.08	0.5	SD	Metals	7440-66-6	Zinc	68.3	8	0.39	mg/kg	EDB						N	10
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Metals	7429-90-5	Aluminum	38	100	5.5	ug/L	J	U	06A				N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Metals	7440-36-0	Antimony	0.21	1	0.13	ug/L	J	J	15				N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Metals	7440-39-3	Barium	22	5	0.15	ug/L	B						N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Metals	7440-48-4	Cobalt	0.61	1	0.016	ug/L	J	J	15				N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Metals	7440-50-8	Copper	1.4	2	0.43	ug/L	J	J	15				N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Metals	7439-89-6	Iron	893	50	5.5	ug/L							N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Metals	7439-92-1	Lead	0.21	2	0.18	ug/L	J	J	15				N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Metals	7439-95-4	Magnesium	1420	100	4.8	ug/L							N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Metals	7439-96-5	Manganese	28.2	2	0.39	ug/L							N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Metals	7439-98-7	Molybdenum	5.8	5	0.12	ug/L							N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Metals	7440-02-0	Nickel	3.8	1	0.15	ug/L	B						N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Metals	7440-24-6	Strontium	60.7	2	0.17	ug/L		J	19	12			N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Metals	7440-32-6	Titanium	0.87	2	0.29	ug/L	J	J	15				N	1
017A040	NWO-017-3006	19-Sep-06	REG	0	0	GW	Metals	7440-66-6	Zinc	11.7	10	1.8	ug/L							N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Metals	7429-90-5	Aluminum	22.3	100	5.5	ug/L	J	U	06A				N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Metals	7440-39-3	Barium	35.9	5	0.15	ug/L	B						N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Metals	7440-48-4	Cobalt	1.2	1	0.016	ug/L							N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Metals	7440-50-8	Copper	2.7	2	0.43	ug/L							N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Metals	7439-89-6	Iron	32.3	50	5.5	ug/L	J	J	15				N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Metals	7439-92-1	Lead	0.38	2	0.18	ug/L	J	J	15				N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Metals	7439-95-4	Magnesium	4180	100	4.8	ug/L							N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Metals	7439-96-5	Manganese	310	2	0.39	ug/L							N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Metals	7439-98-7	Molybdenum	0.18	5	0.12	ug/L	J	J	15				N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Metals	7440-02-0	Nickel	3.7	1	0.15	ug/L	B						N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Metals	7440-24-6	Strontium	83.5	2	0.17	ug/L		J	19	12			N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Metals	7440-32-6	Titanium	0.97	2	0.29	ug/L	J	J	15				N	1
017A041	NWO-017-3007	19-Sep-06	REG	0	0	GW	Metals	7440-66-6	Zinc	10.4	10	1.8	ug/L							N	1
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	19500	81.3	2.2	mg/kg	D						N	10
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.19	0.81	0.14	mg/kg	JND	J	15	08A			N	10
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	154	4.1	0.19	mg/kg	DB						N	10
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.23	0.41	0.11	mg/kg	JD	J	15				N	10
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	25.4	1.6	0.23	mg/kg	EDB	J	19	13			N	10
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	14.4	0.41	0.014	mg/kg	D						N	10
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	14.5	1.6	0.16	mg/kg	D						N	10
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	25200	40.7	2.6	mg/kg	D						N	10
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	14.3	1.6	0.064	mg/kg	D						N	10
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	3350	81.3	1.5	mg/kg	D						N	10
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	833	1.6	0.046	mg/kg	DB						N	10
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.029	0.032	0.0093	mg/kg	J	J	15				N	1
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.26	4.1	0.24	mg/kg	JD	J	15				N	10
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	13.5	0.81	0.072	mg/kg	D						N	10
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	17.7	1.6	0.075	mg/kg	D	J	19	12			N	10
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	800	1.6	0.24	mg/kg	D						N	10
017A042	NWO-017-0034	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	44.6	8.1	0.4	mg/kg	EDB	J	19	13			N	10
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Metals	7429-90-5	Aluminum	14400	81.3	2.2	mg/kg	D						N	10
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-36-0	Antimony	0.15	0.81	0.14	mg/kg	JND	J	15				N	10
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-39-3	Barium	202	4.1	0.19	mg/kg	DB						N	10
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-43-9	Cadmium	0.2	0.41	0.11	mg/kg	JD	J	15				N	10
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-47-3	Chromium	23.3	1.6	0.23	mg/kg	EDB						N	10
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-48-4	Cobalt	21.2	0.41	0.014	mg/kg	D						N	10
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-50-8	Copper	19.6	1.6	0.16	mg/kg	D						N	10
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Metals	7439-89-6	Iron	32500	40.7	2.6	mg/kg	D						N	10
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Metals	7439-92-1	Lead	15.7	1.6	0.064	mg/kg	D						N	10
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Metals	7439-95-4	Magnesium	2390	81.3	1.5	mg/kg	D						N	10
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Metals	7439-96-5	Manganese	794	1.6	0.046	mg/kg	DB						N	10
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Metals	7439-97-6	Mercury	0.038	0.025	0.0073	mg/kg							N	1
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Metals	7439-98-7	Molybdenum	0.56	4.1	0.24	mg/kg	JD	J	15				N	10
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-02-0	Nickel	13.3	0.81	0.072	mg/kg	D						N	10

Attachment 2

Summary of Analytical Results greater than the MDL
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-24-6	Strontium	30.1	1.6	0.075	mg/kg	D	J	19	12			N	10
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-32-6	Titanium	434	1.6	0.24	mg/kg	D						N	10
017A043	NWO-017-1007	25-Aug-06	REG	0.08	0.5	SD	Metals	7440-66-6	Zinc	64.4	8.1	0.4	mg/kg	EDB						N	10
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Metals	7429-90-5	Aluminum	5.7	100	5.5	ug/L	J	U	06A				N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Metals	7440-39-3	Barium	4	5	0.15	ug/L	JB	J	15				N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Metals	7440-48-4	Cobalt	0.027	1	0.016	ug/L	JB	U	06B	15			N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Metals	7440-50-8	Copper	1	2	0.43	ug/L	J	J	15				N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Metals	7439-89-6	Iron	22.9	50	5.5	ug/L	J	J	15				N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Metals	7439-92-1	Lead	0.81	2	0.18	ug/L	J	J	15				N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Metals	7439-95-4	Magnesium	1140	100	4.8	ug/L							N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Metals	7439-96-5	Manganese	3	2	0.39	ug/L							N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Metals	7439-98-7	Molybdenum	0.57	5	0.12	ug/L	J	J	15				N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Metals	7440-02-0	Nickel	0.9	1	0.15	ug/L	J	J	15				N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Metals	7440-24-6	Strontium	41	2	0.17	ug/L		J	19	12			N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Metals	7440-32-6	Titanium	1	2	0.29	ug/L	J	J	15				N	1
017A044	NWO-017-3008	13-Sep-06	REG	0	0	GW	Metals	7440-66-6	Zinc	10.6	10	1.8	ug/L		U	06A				N	1
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	27800	80	2.2	mg/kg	D						N	10
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.27	0.8	0.14	mg/kg	JD	J	15				N	10
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	168	4	0.18	mg/kg	D						N	10
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.21	0.4	0.11	mg/kg	JD	J	15				N	10
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	40.6	1.6	0.22	mg/kg	DB						N	10
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	17.9	0.8	0.014	mg/kg	DB						N	10
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	36.4	1.6	0.16	mg/kg	D						N	10
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	43300	40	2.6	mg/kg	D						N	10
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	16.5	1.6	0.063	mg/kg	D						N	10
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	4820	80	1.4	mg/kg	D						N	10
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	529	1.6	0.046	mg/kg	D						N	10
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.031	0.031	0.009	mg/kg		U	06A				N	1
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.73	4	0.23	mg/kg	JD	J	15				N	10
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	26.8	0.8	0.07	mg/kg	D						N	10
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	27.8	1.6	0.074	mg/kg	D	J	12				N	10
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	320	1.6	0.24	mg/kg	D						N	10
017A045	NWO-017-0035	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	75.1	8	0.39	mg/kg	DB						N	10
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Explosives	606-20-2	2,6-Dinitrotoluene	0.021	0.04	0.007	mg/kg	J	J	15				N	1
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	33300	78.7	2.1	mg/kg	D						N	10
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.26	0.79	0.13	mg/kg	JD	J	15				N	10
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	257	3.9	0.18	mg/kg	D						N	10
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.21	0.39	0.11	mg/kg	JD	J	15				N	10
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	73.6	1.6	0.22	mg/kg	DB						N	10
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	15.1	0.79	0.013	mg/kg	DB						N	10
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	43.7	1.6	0.16	mg/kg	D						N	10
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	44100	39.4	2.5	mg/kg	D						N	10
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	15.4	1.6	0.062	mg/kg	D						N	10
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	4950	78.7	1.4	mg/kg	D						N	10
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	559	1.6	0.045	mg/kg	D						N	10
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.033	0.025	0.0072	mg/kg		U	06A				N	1
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	5.7	3.9	0.23	mg/kg	D						N	10
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	47.9	0.79	0.069	mg/kg	D						N	10
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	55	1.6	0.072	mg/kg	D	J	12				N	10
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	262	1.6	0.24	mg/kg	D						N	10
017A046	NWO-017-0036	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	88.2	7.9	0.39	mg/kg	DB						N	10
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Explosives	606-20-2	2,6-Dinitrotoluene	0.02	0.04	0.007	mg/kg	J	J	15				N	1
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	30300	78.1	2.1	mg/kg	D						N	10
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.26	0.78	0.13	mg/kg	JD	J	15				N	10
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	258	3.9	0.18	mg/kg	D						N	10
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.18	0.39	0.11	mg/kg	JD	J	15				N	10
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	36.4	1.6	0.22	mg/kg	DB						N	10
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	19	0.78	0.013	mg/kg	DB						N	10
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	40.5	1.6	0.16	mg/kg	D						N	10
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	46000	39.1	2.5	mg/kg	D						N	10
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	17	1.6	0.062	mg/kg	D						N	10
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	3980	78.1	1.4	mg/kg	D						N	10

Attachment 2

Summary of Analytical Results greater than the MDL
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	1100	1.6	0.045	mg/kg	D						N	10
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.045	0.024	0.0068	mg/kg		U	06A				N	1
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.86	3.9	0.23	mg/kg	JD	J	15				N	10
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	20.5	0.78	0.069	mg/kg	D						N	10
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	35.1	1.6	0.072	mg/kg	D	J	12				N	10
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	332	1.6	0.23	mg/kg	D						N	10
017A047	NWO-017-0037	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	72.6	7.8	0.38	mg/kg	DB						N	10
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	26900	83.3	2.2	mg/kg	D						N	10
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.18	0.83	0.14	mg/kg	JD	J	15				N	10
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	200	4.2	0.19	mg/kg	D						N	10
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.19	0.42	0.12	mg/kg	JD	J	15				N	10
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	31.2	1.7	0.23	mg/kg	DB						N	10
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	20.1	0.83	0.014	mg/kg	DB						N	10
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	43.2	1.7	0.17	mg/kg	D						N	10
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	45000	41.7	2.7	mg/kg	D						N	10
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	13.5	1.7	0.066	mg/kg	D						N	10
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	3710	83.3	1.5	mg/kg	D						N	10
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	793	1.7	0.048	mg/kg	D						N	10
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.027	0.03	0.0086	mg/kg	J	U	06A				N	1
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.71	4.2	0.24	mg/kg	JD	J	15				N	10
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	16.4	0.83	0.073	mg/kg	D						N	10
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	33.5	1.7	0.077	mg/kg	D	J	12				N	10
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	314	1.7	0.25	mg/kg	D						N	10
017A048	NWO-017-0038	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	54.8	8.3	0.41	mg/kg	DB						N	10
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Metals	7429-90-5	Aluminum	25100	81.3	2.2	mg/kg	D						N	10
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-36-0	Antimony	0.27	0.81	0.14	mg/kg	JND	J	15	08A			N	10
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-39-3	Barium	151	4.1	0.19	mg/kg	NDB						N	10
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-43-9	Cadmium	0.23	0.41	0.11	mg/kg	JD	J	15				N	10
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-47-3	Chromium	35	1.6	0.23	mg/kg	EDB	J	13				N	10
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-48-4	Cobalt	18.4	0.81	0.014	mg/kg	D						N	10
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-50-8	Copper	30.2	1.6	0.16	mg/kg	DB						N	10
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Metals	7439-89-6	Iron	42800	40.7	2.6	mg/kg	DB						N	10
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Metals	7439-92-1	Lead	17.5	1.6	0.064	mg/kg	D						N	10
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Metals	7439-95-4	Magnesium	3830	81.3	1.5	mg/kg	DB						N	10
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Metals	7439-96-5	Manganese	712	1.6	0.046	mg/kg	DB						N	10
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Metals	7439-97-6	Mercury	0.029	0.025	0.0072	mg/kg		U	06A				N	1
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Metals	7439-98-7	Molybdenum	0.62	4.1	0.24	mg/kg	JND	J	15				N	10
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-02-0	Nickel	20.4	0.81	0.072	mg/kg	D						N	10
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-24-6	Strontium	25.8	1.6	0.075	mg/kg	D	J	12				N	10
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-32-6	Titanium	318	1.6	0.24	mg/kg	ND	J	08A				N	10
017A049	NWO-017-1008	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-66-6	Zinc	62.5	8.1	0.4	mg/kg	EDB	J	13				N	10
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Metals	7440-39-3	Barium	14.7	5	0.15	ug/L	B						N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Metals	7440-48-4	Cobalt	0.018	1	0.016	ug/L	JB	J	15				N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Metals	7440-50-8	Copper	4	2	0.43	ug/L							N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Metals	7439-89-6	Iron	28.7	50	5.5	ug/L	J	J	15				N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Metals	7439-92-1	Lead	0.41	2	0.18	ug/L	J	J	15				N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Metals	7439-95-4	Magnesium	1760	100	4.8	ug/L							N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Metals	7439-96-5	Manganese	16.2	2	0.39	ug/L							N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Metals	7439-98-7	Molybdenum	0.67	5	0.12	ug/L	J	J	15				N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Metals	7440-02-0	Nickel	1.1	1	0.15	ug/L							N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Metals	7440-24-6	Strontium	63.3	2	0.17	ug/L		J	19	12			N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Metals	7440-32-6	Titanium	1	2	0.29	ug/L	J	J	15				N	1
017A050	NWO-017-3009	14-Sep-06	REG	0	0	GW	Metals	7440-66-6	Zinc	18.4	10	1.8	ug/L		U	06A				N	1
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	50000	80	2.2	mg/kg	ED						N	10
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	183	4	0.18	mg/kg	NDB						N	10
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.68	0.4	0.11	mg/kg	D						N	10
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	147	1.6	0.22	mg/kg	EDB						N	10
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	65.3	0.4	0.014	mg/kg	ED						N	10
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	133	3.2	0.32	mg/kg	NDB						N	20
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	74200	40	2.6	mg/kg	ED						N	10
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	3.9	1.6	0.063	mg/kg	D						N	10
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	13200	80	1.4	mg/kg	D						N	10

Attachment 2

Summary of Analytical Results greater than the MDL
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	2300	1.6	0.046	mg/kg	ED						N	10
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.023	0.029	0.0085	mg/kg	J	J	15				N	1
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.24	4	0.23	mg/kg	JND	J	15				N	10
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	73.9	0.8	0.07	mg/kg	NED						N	10
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	78.4	1.6	0.074	mg/kg	D	J	19	12			N	10
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	4900	3.2	0.48	mg/kg	D						N	20
017A051	NWO-017-0039R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	73.7	8	0.39	mg/kg	EDB						N	10
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	51300	89.3	2.4	mg/kg	ED						N	10
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	172	4.5	0.21	mg/kg	NDB						N	10
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	1	0.45	0.12	mg/kg	D						N	10
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	175	1.8	0.25	mg/kg	EDB						N	10
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	62.7	0.45	0.015	mg/kg	ED						N	10
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	156	3.6	0.36	mg/kg	NDB						N	20
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	89200	44.6	2.9	mg/kg	ED						N	10
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	5.7	1.8	0.071	mg/kg	D						N	10
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	11100	89.3	1.6	mg/kg	D						N	10
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	2260	1.8	0.051	mg/kg	ED						N	10
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.023	0.031	0.0091	mg/kg	J	J	15				N	1
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.4	4.5	0.26	mg/kg	JND	J	15				N	10
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	73.5	0.89	0.079	mg/kg	NED						N	10
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	50.4	1.8	0.082	mg/kg	D	J	19	12			N	10
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	7490	3.6	0.54	mg/kg	D						N	20
017A052	NWO-017-0040R	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	95.8	8.9	0.44	mg/kg	EDB						N	10
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	49700	84.7	2.3	mg/kg	ED						N	10
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	169	4.2	0.19	mg/kg	NDB						N	10
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.8	0.42	0.12	mg/kg	D						N	10
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	147	1.7	0.24	mg/kg	EDB						N	10
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	62	0.85	0.014	mg/kg	ED						N	10
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	131	3.4	0.34	mg/kg	NDB						N	20
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	73600	42.4	2.7	mg/kg	ED						N	10
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	4.2	1.7	0.067	mg/kg	D						N	10
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	13000	84.7	1.5	mg/kg	D						N	10
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	2090	1.7	0.048	mg/kg	ED						N	10
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.021	0.032	0.0094	mg/kg	J	J	15				N	1
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.31	4.2	0.25	mg/kg	JND						N	10
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	71.9	0.85	0.075	mg/kg	NED						N	10
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	86.3	1.7	0.078	mg/kg	D	J	19	12			N	10
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	4900	3.4	0.51	mg/kg	D						N	20
017A052A	NWO-017-0040RR	11-Sep-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	75.4	8.5	0.42	mg/kg	EDB						N	10
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Metals	7429-90-5	Aluminum	53200	80	2.2	mg/kg	ED						N	10
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Metals	7440-39-3	Barium	182	4	0.18	mg/kg	NDB						N	10
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.74	0.4	0.11	mg/kg	D						N	10
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Metals	7440-47-3	Chromium	155	1.6	0.22	mg/kg	EDB						N	10
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Metals	7440-48-4	Cobalt	65.5	0.8	0.014	mg/kg	ED						N	10
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Metals	7440-50-8	Copper	129	3.2	0.32	mg/kg	NDB						N	20
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Metals	7439-89-6	Iron	78100	40	2.6	mg/kg	ED						N	10
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Metals	7439-92-1	Lead	4.5	1.6	0.063	mg/kg	D						N	10
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Metals	7439-95-4	Magnesium	13600	80	1.4	mg/kg	D						N	10
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Metals	7439-96-5	Manganese	2290	1.6	0.046	mg/kg	ED						N	10
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.022	0.032	0.0093	mg/kg	J	J	15				N	1
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.24	4	0.23	mg/kg	JND						N	10
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Metals	7440-02-0	Nickel	77.3	0.8	0.07	mg/kg	NED						N	10
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Metals	7440-24-6	Strontium	89.3	1.6	0.074	mg/kg	D	J	19	12			N	10
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Metals	7440-32-6	Titanium	4750	3.2	0.48	mg/kg	D						N	20
017A052A	NWO-017-0040RR-ED	11-Sep-06	FD	0.08	0.5	SS	Metals	7440-66-6	Zinc	78.2	8	0.39	mg/kg	EDB						N	10
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Explosives	98-95-3	Nitrobenzene	0.025	0.04	0.006	mg/kg	J	J	19	18	15		N	1
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Metals	7429-90-5	Aluminum	39300	82	2.2	mg/kg	ED						N	10
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Metals	7440-39-3	Barium	181	4.1	0.19	mg/kg	NDB						N	10
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Metals	7440-43-9	Cadmium	0.64	0.41	0.11	mg/kg	D						N	10
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Metals	7440-47-3	Chromium	117	1.6	0.23	mg/kg	EDB						N	10
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Metals	7440-48-4	Cobalt	76.5	0.41	0.014	mg/kg	ED						N	10
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Metals	7440-50-8	Copper	86.8	3.3	0.33	mg/kg	NDB						N	20

Attachment 2

Summary of Analytical Results greater than the MDL
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Metals	7439-89-6	Iron	75600	41	2.6	mg/kg	ED						N	10
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Metals	7439-92-1	Lead	1.6	1.6	0.065	mg/kg	JD						N	10
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Metals	7439-95-4	Magnesium	12900	82	1.5	mg/kg	D						N	10
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Metals	7439-96-5	Manganese	1800	1.6	0.047	mg/kg	ED						N	10
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Metals	7440-02-0	Nickel	79.5	0.82	0.072	mg/kg	NED						N	10
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Metals	7440-24-6	Strontium	88	1.6	0.075	mg/kg	D	J	19	12			N	10
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Metals	7440-32-6	Titanium	4480	3.3	0.49	mg/kg	D						N	20
017A053	NWO-017-1009R	7-Sep-06	REG	0.08	0.52	SD	Metals	7440-66-6	Zinc	66.5	8.2	0.4	mg/kg	EDB						N	10
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Metals	7429-90-5	Aluminum	6.1	100	5.5	ug/L	J	U	06A				N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Metals	7440-39-3	Barium	0.79	5	0.15	ug/L	JB	U	06A				N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Metals	7440-50-8	Copper	1.4	2	0.43	ug/L	J	J	15				N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Metals	7439-89-6	Iron	94.7	50	5.5	ug/L							N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Metals	7439-92-1	Lead	0.4	2	0.18	ug/L	J	J	15				N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Metals	7439-95-4	Magnesium	13000	100	4.8	ug/L							N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Metals	7439-96-5	Manganese	39.2	2	0.39	ug/L							N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Metals	7439-98-7	Molybdenum	0.33	5	0.12	ug/L	J	J	15				N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Metals	7440-02-0	Nickel	1.1	1	0.15	ug/L							N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Metals	7440-24-6	Strontium	115	2	0.17	ug/L		J	19	12			N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Metals	7440-32-6	Titanium	2.3	2	0.29	ug/L							N	1
017A054	NWO-017-3010	14-Sep-06	REG	0	0	GW	Metals	7440-66-6	Zinc	9.7	10	1.8	ug/L	J	U	06A				N	1
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Explosives	98-95-3	Nitrobenzene	0.021	0.04	0.006	mg/kg	J	J	19	18	15		N	1
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	52700	92.6	2.5	mg/kg	ED						N	10
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	646	4.6	0.21	mg/kg	NDB						N	10
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.79	0.46	0.13	mg/kg	D						N	10
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	57	1.9	0.26	mg/kg	EDB						N	10
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	39.3	0.93	0.016	mg/kg	ED						N	10
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	116	1.9	0.19	mg/kg	NDB						N	10
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	66600	46.3	3	mg/kg	ED						N	10
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	9.7	1.9	0.073	mg/kg	D						N	10
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	11400	92.6	1.7	mg/kg	D						N	10
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	2830	1.9	0.053	mg/kg	ED						N	10
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.025	0.031	0.0089	mg/kg	J	J	15				N	1
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.32	4.6	0.27	mg/kg	JND						N	10
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	50.4	0.93	0.081	mg/kg	NED						N	10
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	131	1.9	0.085	mg/kg	D	J	19	12			N	10
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	2910	1.9	0.28	mg/kg	D						N	10
017A055	NWO-017-0041	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	80.2	9.3	0.45	mg/kg	EDB						N	10
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	30500	89.3	2.4	mg/kg	ED						N	10
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.23	0.89	0.15	mg/kg	JND						N	10
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	302	4.5	0.21	mg/kg	NDB						N	10
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.35	0.45	0.12	mg/kg	JD						N	10
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	55.8	1.8	0.25	mg/kg	EDB						N	10
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	34	0.89	0.015	mg/kg	ED						N	10
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	39.3	1.8	0.18	mg/kg	NDB						N	10
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	42800	44.6	2.9	mg/kg	ED						N	10
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	15.4	1.8	0.071	mg/kg	D						N	10
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	4860	89.3	1.6	mg/kg	D						N	10
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	1570	1.8	0.051	mg/kg	ED						N	10
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.04	0.028	0.008	mg/kg							N	1
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.62	4.5	0.26	mg/kg	JND						N	10
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	31.7	0.89	0.079	mg/kg	NED						N	10
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	61.4	1.8	0.082	mg/kg	D	J	19	12			N	10
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	649	1.8	0.27	mg/kg	D						N	10
017A056	NWO-017-0042	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	58.5	8.9	0.44	mg/kg	EDB						N	10
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Explosives	98-95-3	Nitrobenzene	0.024	0.04	0.006	mg/kg	J	J	08A	19	18	15	N	1
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Metals	7429-90-5	Aluminum	31000	89.3	2.4	mg/kg	ED						N	10
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.25	0.89	0.15	mg/kg	JND						N	10
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Metals	7440-39-3	Barium	315	4.5	0.21	mg/kg	NDB						N	10
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.44	0.45	0.12	mg/kg	JD						N	10
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Metals	7440-47-3	Chromium	57.4	1.8	0.25	mg/kg	EDB						N	10
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Metals	7440-48-4	Cobalt	33.2	0.89	0.015	mg/kg	ED						N	10
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Metals	7440-50-8	Copper	39.5	1.8	0.18	mg/kg	NDB						N	10

Attachment 2

Summary of Analytical Results greater than the MDL
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Metals	7439-89-6	Iron	44100	44.6	2.9	mg/kg	ED						N	10
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Metals	7439-92-1	Lead	16.4	1.8	0.071	mg/kg	D						N	10
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Metals	7439-95-4	Magnesium	4990	89.3	1.6	mg/kg	D						N	10
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Metals	7439-96-5	Manganese	1650	1.8	0.051	mg/kg	ED						N	10
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.037	0.03	0.0086	mg/kg							N	1
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.63	4.5	0.26	mg/kg	JND						N	10
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Metals	7440-02-0	Nickel	32	0.89	0.079	mg/kg	NED						N	10
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Metals	7440-24-6	Strontium	62.6	1.8	0.082	mg/kg	D	J	19	12			N	10
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Metals	7440-32-6	Titanium	663	1.8	0.27	mg/kg	D						N	10
017A056	NWO-017-0043	6-Sep-06	FD	0.08	0.5	SS	Metals	7440-66-6	Zinc	62.3	8.9	0.44	mg/kg	EDB						N	10
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Metals	7429-90-5	Aluminum	34900	165	4.5	mg/kg	ED						N	20
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Metals	7440-39-3	Barium	444	8.3	0.38	mg/kg	NDB						N	20
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Metals	7440-43-9	Cadmium	0.42	0.83	0.23	mg/kg	JD	J	15				N	20
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Metals	7440-47-3	Chromium	55.9	3.3	0.46	mg/kg	EDB						N	20
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Metals	7440-48-4	Cobalt	38.1	0.83	0.028	mg/kg	EDB						N	20
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Metals	7440-50-8	Copper	67.5	3.3	0.33	mg/kg	NDB						N	20
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Metals	7439-89-6	Iron	63500	82.6	5.3	mg/kg	ED						N	20
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Metals	7439-92-1	Lead	12	3.3	0.13	mg/kg	D						N	20
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Metals	7439-95-4	Magnesium	5370	165	3	mg/kg	D						N	20
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Metals	7439-96-5	Manganese	2320	3.3	0.094	mg/kg	ED						N	20
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Metals	7439-97-6	Mercury	0.041	0.031	0.0091	mg/kg							N	1
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Metals	7439-98-7	Molybdenum	1.2	8.3	0.48	mg/kg	JND	J	15				N	20
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Metals	7440-02-0	Nickel	38.2	1.7	0.15	mg/kg	NEDB						N	20
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Metals	7440-24-6	Strontium	107	3.3	0.15	mg/kg	D	J	19	12			N	20
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Metals	7440-32-6	Titanium	1400	3.3	0.5	mg/kg	D						N	20
017A057	NWO-017-1010R	7-Sep-06	REG	0.08	0.33	SD	Metals	7440-66-6	Zinc	78.8	16.5	0.81	mg/kg	EDB						N	20
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Metals	7429-90-5	Aluminum	11.8	100	5.5	ug/L	J	UJ	19	17	06A		N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Metals	7440-39-3	Barium	20.2	5	0.15	ug/L	B						N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Metals	7440-50-8	Copper	1.4	2	0.43	ug/L	J	J	15				N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Metals	7439-89-6	Iron	16.3	50	5.5	ug/L	J	J	19	17	15		N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Metals	7439-92-1	Lead	0.24	2	0.18	ug/L	J	J	15				N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Metals	7439-95-4	Magnesium	1410	100	4.8	ug/L							N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Metals	7439-96-5	Manganese	11.3	2	0.39	ug/L							N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Metals	7439-98-7	Molybdenum	1.3	5	0.12	ug/L	J	J	15				N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Metals	7440-02-0	Nickel	0.29	1	0.15	ug/L	JB	J	19	17	15		N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Metals	7440-24-6	Strontium	101	2	0.17	ug/L		J	19	12			N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Metals	7440-32-6	Titanium	0.85	2	0.29	ug/L	J	J	15				N	1
017A058	NWO-017-3011	20-Sep-06	REG	0	0	GW	Metals	7440-66-6	Zinc	18.2	10	1.8	ug/L		J	19	17			N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Metals	7429-90-5	Aluminum	7.4	100	5.5	ug/L	J	UJ	19	17	06A		N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Metals	7440-39-3	Barium	19.6	5	0.15	ug/L	B						N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Metals	7440-50-8	Copper	1.6	2	0.43	ug/L	J	J	15				N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Metals	7439-89-6	Iron	30.1	50	5.5	ug/L	J	J	19	17	15		N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Metals	7439-92-1	Lead	0.25	2	0.18	ug/L	J	J	15				N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Metals	7439-95-4	Magnesium	1400	100	4.8	ug/L							N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Metals	7439-96-5	Manganese	11.5	2	0.39	ug/L							N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Metals	7439-98-7	Molybdenum	1.4	5	0.12	ug/L	J	J	15				N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Metals	7440-02-0	Nickel	1.1	1	0.15	ug/L	B	J	19	17			N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Metals	7440-24-6	Strontium	98.3	2	0.17	ug/L		J	19	12			N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Metals	7440-32-6	Titanium	0.79	2	0.29	ug/L	J	J	15				N	1
017A058	NWO-017-3011 FD	20-Sep-06	FD	0	0	GW	Metals	7440-66-6	Zinc	9.2	10	1.8	ug/L	J	J	19	17	15		N	1
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Metals	7429-90-5	Aluminum	21200	75.2	2	mg/kg	D						N	10
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Metals	7440-36-0	Antimony	0.17	0.75	0.13	mg/kg	JND	J	15				N	10
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Metals	7440-39-3	Barium	164	3.8	0.17	mg/kg	NDB						N	10
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Metals	7440-43-9	Cadmium	0.43	0.38	0.11	mg/kg	D						N	10
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Metals	7440-47-3	Chromium	30.2	1.5	0.21	mg/kg	EDB						N	10
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Metals	7440-48-4	Cobalt	17.2	0.38	0.013	mg/kg	DB						N	10
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Metals	7440-50-8	Copper	18	1.5	0.15	mg/kg	D						N	10
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Metals	7439-89-6	Iron	30200	37.6	2.4	mg/kg	D						N	10
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Metals	7439-92-1	Lead	14.7	1.5	0.059	mg/kg	D						N	10
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Metals	7439-95-4	Magnesium	4100	75.2	1.4	mg/kg	D						N	10
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Metals	7439-96-5	Manganese	924	1.5	0.043	mg/kg	DB						N	10
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Metals	7439-97-6	Mercury	0.035	0.031	0.0091	mg/kg							N	1

Attachment 2

Summary of Analytical Results greater than the MDL
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Metals	7439-98-7	Molybdenum	0.46	3.8	0.22	mg/kg	JD	J	15				N	10
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Metals	7440-02-0	Nickel	17	0.75	0.066	mg/kg	D						N	10
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Metals	7440-24-6	Strontium	30.4	1.5	0.069	mg/kg	D						N	10
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Metals	7440-32-6	Titanium	1770	1.5	0.23	mg/kg	D						N	10
017A059	NWO-017-0044	22-Aug-06	REG	0	0.5	SS	Metals	7440-66-6	Zinc	67.4	7.5	0.37	mg/kg	EDB						N	10
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Metals	7429-90-5	Aluminum	19000	87.7	2.4	mg/kg	D						N	10
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Metals	7440-39-3	Barium	188	4.4	0.2	mg/kg	NDB						N	10
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Metals	7440-43-9	Cadmium	0.29	0.44	0.12	mg/kg	JD	J	15				N	10
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Metals	7440-47-3	Chromium	26.6	1.8	0.25	mg/kg	EDB						N	10
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Metals	7440-48-4	Cobalt	18.3	0.44	0.015	mg/kg	DB						N	10
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Metals	7440-50-8	Copper	18.8	1.8	0.18	mg/kg	D						N	10
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Metals	7439-89-6	Iron	27900	43.9	2.8	mg/kg	D						N	10
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Metals	7439-92-1	Lead	11.6	1.8	0.069	mg/kg	D						N	10
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Metals	7439-95-4	Magnesium	3040	87.7	1.6	mg/kg	D						N	10
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Metals	7439-96-5	Manganese	1460	1.8	0.05	mg/kg	DB						N	10
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Metals	7439-97-6	Mercury	0.041	0.03	0.0086	mg/kg							N	1
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Metals	7439-98-7	Molybdenum	0.3	4.4	0.25	mg/kg	JD	J	15				N	10
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Metals	7440-02-0	Nickel	15.2	0.88	0.077	mg/kg	D						N	10
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Metals	7440-24-6	Strontium	38.9	1.8	0.081	mg/kg	D						N	10
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Metals	7440-32-6	Titanium	577	1.8	0.26	mg/kg	D						N	10
017A060	NWO-017-1011	22-Aug-06	REG	0	0.5	SD	Metals	7440-66-6	Zinc	72.6	8.8	0.43	mg/kg	EDB						N	10
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Metals	7429-90-5	Aluminum	20600	84	2.3	mg/kg	D						N	10
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-36-0	Antimony	0.15	0.84	0.14	mg/kg	JND	J	15				N	10
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-39-3	Barium	161	4.2	0.19	mg/kg	NDB						N	10
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-43-9	Cadmium	0.3	0.42	0.12	mg/kg	JD	J	15				N	10
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-47-3	Chromium	26.8	1.7	0.24	mg/kg	EDB						N	10
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-48-4	Cobalt	14.6	0.42	0.014	mg/kg	DB						N	10
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-50-8	Copper	14.9	1.7	0.17	mg/kg	D						N	10
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Metals	7439-89-6	Iron	26600	42	2.7	mg/kg	D						N	10
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Metals	7439-92-1	Lead	13.7	1.7	0.066	mg/kg	D						N	10
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Metals	7439-95-4	Magnesium	3990	84	1.5	mg/kg	D						N	10
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Metals	7439-96-5	Manganese	758	1.7	0.048	mg/kg	DB						N	10
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Metals	7439-97-6	Mercury	0.029	0.029	0.0083	mg/kg		U	06B				N	1
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Metals	7439-98-7	Molybdenum	0.38	4.2	0.24	mg/kg	JD	J	15				N	10
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-02-0	Nickel	15.4	0.84	0.074	mg/kg	D						N	10
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-24-6	Strontium	19.1	1.7	0.077	mg/kg	D						N	10
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-32-6	Titanium	1380	1.7	0.25	mg/kg	D						N	10
017A061	NWO-017-0045	23-Aug-06	REG	0.17	0.5	SS	Metals	7440-66-6	Zinc	59.2	8.4	0.41	mg/kg	EDB						N	10
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	25000	84.7	2.3	mg/kg	D						N	10
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	157	4.2	0.19	mg/kg	NDB						N	10
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.27	0.42	0.12	mg/kg	JD	J	15				N	10
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	31.8	1.7	0.24	mg/kg	EDB						N	10
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	17.8	0.42	0.014	mg/kg	DB						N	10
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	20.4	1.7	0.17	mg/kg	D						N	10
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	32800	42.4	2.7	mg/kg	D						N	10
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	11.6	1.7	0.067	mg/kg	D						N	10
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	4410	84.7	1.5	mg/kg	D						N	10
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	830	1.7	0.048	mg/kg	D						N	10
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.038	0.03	0.0086	mg/kg							N	1
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.28	4.2	0.25	mg/kg	JD	J	15				N	10
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	14.3	0.85	0.075	mg/kg	D						N	10
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	25.4	1.7	0.078	mg/kg	D						N	10
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	1010	1.7	0.25	mg/kg	D						N	10
017A062	NWO-017-0046	22-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	53	8.5	0.42	mg/kg	EDB						N	10
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Metals	7429-90-5	Aluminum	12300	83.3	2.2	mg/kg	D						N	10
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Metals	7440-39-3	Barium	76	4.2	0.19	mg/kg	NDB						N	10
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Metals	7440-43-9	Cadmium	0.18	0.42	0.12	mg/kg	JD	J	15				N	10
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Metals	7440-47-3	Chromium	19.9	1.7	0.23	mg/kg	EDB						N	10
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Metals	7440-48-4	Cobalt	17.2	0.42	0.014	mg/kg	DB						N	10
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Metals	7440-50-8	Copper	14.1	1.7	0.17	mg/kg	D						N	10
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Metals	7439-89-6	Iron	21200	41.7	2.7	mg/kg	D						N	10
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Metals	7439-92-1	Lead	5	1.7	0.066	mg/kg	D						N	10

Attachment 2

Summary of Analytical Results greater than the MDL
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Metals	7439-95-4	Magnesium	1920	83.3	1.5	mg/kg	D						N	10
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Metals	7439-96-5	Manganese	939	1.7	0.048	mg/kg	D						N	10
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Metals	7439-97-6	Mercury	0.034	0.028	0.0081	mg/kg							N	1
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Metals	7440-02-0	Nickel	6.2	0.83	0.073	mg/kg	D						N	10
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Metals	7440-24-6	Strontium	19.7	1.7	0.077	mg/kg	D						N	10
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Metals	7440-32-6	Titanium	379	1.7	0.25	mg/kg	D						N	10
017A063	NWO-017-1012	23-Aug-06	REG	0.08	0.5	SD	Metals	7440-66-6	Zinc	27.8	8.3	0.41	mg/kg	EDB						N	10
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Metals	7429-90-5	Aluminum	16100	80.6	2.2	mg/kg	D						N	10
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Metals	7440-39-3	Barium	104	4	0.19	mg/kg	NDB						N	10
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Metals	7440-43-9	Cadmium	0.18	0.4	0.11	mg/kg	JD	J	15				N	10
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Metals	7440-47-3	Chromium	24.2	1.6	0.23	mg/kg	EDB						N	10
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Metals	7440-48-4	Cobalt	17.7	0.4	0.014	mg/kg	DB						N	10
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Metals	7440-50-8	Copper	18.4	1.6	0.16	mg/kg	D						N	10
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Metals	7439-89-6	Iron	25000	40.3	2.6	mg/kg	D						N	10
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Metals	7439-92-1	Lead	5.9	1.6	0.064	mg/kg	D						N	10
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Metals	7439-95-4	Magnesium	2580	80.6	1.5	mg/kg	D						N	10
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Metals	7439-96-5	Manganese	1090	1.6	0.046	mg/kg	D						N	10
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Metals	7439-97-6	Mercury	0.048	0.029	0.0084	mg/kg							N	1
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Metals	7439-98-7	Molybdenum	0.24	4	0.23	mg/kg	JD	J	15				N	10
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Metals	7440-02-0	Nickel	8.3	0.81	0.071	mg/kg	D						N	10
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Metals	7440-24-6	Strontium	30.1	1.6	0.074	mg/kg	D						N	10
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Metals	7440-32-6	Titanium	510	1.6	0.24	mg/kg	D						N	10
017A063	NWO-017-1013	23-Aug-06	FD	0.08	0.5	SD	Metals	7440-66-6	Zinc	38.5	8.1	0.4	mg/kg	EDB						N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	54000	81.3	2.2	mg/kg	ED	J	19	13			N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-38-2	Arsenic	0.95	4.1	0.5	mg/kg	JND	J	15				N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	127	4.1	0.19	mg/kg	NDB	J	08A				N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-41-7	Beryllium	0.53	0.16	0.026	mg/kg	D						N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.6	0.41	0.11	mg/kg	D						N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-70-2	Calcium	5770	813	4.6	mg/kg	ED	J	19	13			N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	243	1.6	0.23	mg/kg	EDB	J	19	13			N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	80.6	0.41	0.014	mg/kg	EDB	J	19	13			N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	133	3.3	0.33	mg/kg	NDB	J	08A				N	20
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	83100	40.7	2.6	mg/kg	ED	J	19	13			N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	3.5	1.6	0.064	mg/kg	D						N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	15300	81.3	1.5	mg/kg	D						N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	2400	1.6	0.046	mg/kg	ED	J	19	13			N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.067	0.033	0.0095	mg/kg							N	1
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.33	4.1	0.24	mg/kg	JND	J	15	08A			N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	96.8	0.81	0.072	mg/kg	NEDB	J	19	13	08A		N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-09-7	Potassium	572	813	1.6	mg/kg	JD	J	15				N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7782-49-2	Selenium	0.94	4.1	0.79	mg/kg	JND	J	15				N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-22-4	Silver	0.093	0.24	0.015	mg/kg	JDB	J	15				N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-23-5	Sodium	411	813	7.6	mg/kg	JND	J	15	08A			N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	36.6	1.6	0.075	mg/kg	D	J	19	12			N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-28-0	Thallium	0.17	1.6	0.14	mg/kg	JDB	U	06A				N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	5690	3.3	0.49	mg/kg	D						N	20
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-62-2	Vanadium	319	8.1	2	mg/kg	D						N	10
017A064	NWO-017-5001	7-Sep-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	79.2	8.1	0.4	mg/kg	EDB	J	19	13			N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	29500	94.3	2.5	mg/kg	ED						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.21	0.94	0.16	mg/kg	JND						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7440-38-2	Arsenic	13.6	4.7	0.58	mg/kg	ND						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	290	4.7	0.22	mg/kg	NDB						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7440-41-7	Beryllium	1	0.19	0.03	mg/kg	D						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.3	0.47	0.13	mg/kg	JD						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7440-70-2	Calcium	2010	943	5.3	mg/kg	ED						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	35.1	1.9	0.26	mg/kg	EDB						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	29.2	0.94	0.016	mg/kg	ED						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	35.1	1.9	0.19	mg/kg	NDB						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	42600	47.2	3	mg/kg	ED						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	22.2	1.9	0.075	mg/kg	D						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	4220	94.3	1.7	mg/kg	D						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	2010	1.9	0.054	mg/kg	ED						N	10

Attachment 2

Summary of Analytical Results greater than the MDL
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.047	0.026	0.0075	mg/kg							N	1
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.62	4.7	0.27	mg/kg	JND						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	20.2	0.94	0.083	mg/kg	NED						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7440-09-7	Potassium	2250	943	1.9	mg/kg	D						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7440-22-4	Silver	0.06	0.28	0.018	mg/kg	JDB						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7440-23-5	Sodium	69.9	943	8.9	mg/kg	JND						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	23.8	1.9	0.087	mg/kg	D	J	19	12			N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7440-28-0	Thallium	0.32	1.9	0.16	mg/kg	JDB	U	06A				N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	2290	1.9	0.28	mg/kg	D						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7440-62-2	Vanadium	114	9.4	2.4	mg/kg	D						N	10
017A065	NWO-017-5002	6-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	99.7	9.4	0.46	mg/kg	EDB						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	27900	86.2	2.3	mg/kg	ED						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.22	0.86	0.15	mg/kg	JND						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-38-2	Arsenic	5	4.3	0.53	mg/kg	ND						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	235	4.3	0.2	mg/kg	NDB						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-41-7	Beryllium	0.94	0.17	0.028	mg/kg	D						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.29	0.43	0.12	mg/kg	JD						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-70-2	Calcium	1940	862	4.8	mg/kg	ED						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	37.3	1.7	0.24	mg/kg	EDB						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	21.1	0.86	0.015	mg/kg	ED						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	30.5	1.7	0.17	mg/kg	NDB						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	39700	43.1	2.8	mg/kg	ED						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	15.6	1.7	0.068	mg/kg	D						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	4400	86.2	1.6	mg/kg	D						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	1560	1.7	0.049	mg/kg	ED						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.029	0.029	0.0083	mg/kg							N	1
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.57	4.3	0.25	mg/kg	JND						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	21.6	0.86	0.076	mg/kg	NED						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-09-7	Potassium	2610	862	1.7	mg/kg	D						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-22-4	Silver	0.053	0.26	0.016	mg/kg	JDB						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-23-5	Sodium	80.6	862	8.1	mg/kg	JND						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	21.8	1.7	0.079	mg/kg	D	J	19	12			N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-28-0	Thallium	0.28	1.7	0.15	mg/kg	JDB	U	06A				N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	2300	1.7	0.26	mg/kg	D						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-62-2	Vanadium	108	8.6	2.2	mg/kg	D						N	10
017A066	NWO-017-5003	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	81.4	8.6	0.42	mg/kg	EDB						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	24300	80.6	2.2	mg/kg	ED						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.19	0.81	0.14	mg/kg	JND						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-38-2	Arsenic	9.8	4	0.49	mg/kg	ND						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	174	4	0.19	mg/kg	NDB						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-41-7	Beryllium	0.89	0.16	0.026	mg/kg	D						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.3	0.4	0.11	mg/kg	JD						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-70-2	Calcium	3420	806	4.5	mg/kg	ED						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	26.2	1.6	0.23	mg/kg	EDB						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	15.9	0.81	0.014	mg/kg	ED						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	15.4	1.6	0.16	mg/kg	NDB						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	31500	40.3	2.6	mg/kg	ED						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	16	1.6	0.064	mg/kg	D						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	4170	80.6	1.5	mg/kg	D						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	935	1.6	0.046	mg/kg	ED						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.033	0.032	0.0093	mg/kg							N	1
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.58	4	0.23	mg/kg	JND						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	15.7	0.81	0.071	mg/kg	NED						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-09-7	Potassium	2420	806	1.6	mg/kg	D						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7782-49-2	Selenium	0.85	4	0.78	mg/kg	JND						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-22-4	Silver	0.04	0.24	0.015	mg/kg	JDB						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-23-5	Sodium	80.4	806	7.6	mg/kg	JND						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	21.3	1.6	0.074	mg/kg	D	J	19	12			N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-28-0	Thallium	0.25	1.6	0.14	mg/kg	JDB	U	06A				N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	1990	1.6	0.24	mg/kg	D						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-62-2	Vanadium	89.8	8.1	2	mg/kg	D						N	10
017A067	NWO-017-5004	6-Sep-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	70.7	8.1	0.4	mg/kg	EDB						N	10

Attachment 2

Summary of Analytical Results greater than the MDL
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	27700	80	2.2	mg/kg	D						N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-38-2	Arsenic	5.3	4	0.49	mg/kg	D						N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	178	4	0.18	mg/kg	D						N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-41-7	Beryllium	1.1	0.16	0.026	mg/kg	D						N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.33	0.4	0.11	mg/kg	JD	J	15				N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-70-2	Calcium	1780	800	4.5	mg/kg	D						N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	28.4	1.6	0.22	mg/kg	DB						N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	13.5	0.8	0.014	mg/kg	DB						N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	19.3	1.6	0.16	mg/kg	D						N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	30800	40	2.6	mg/kg	D						N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	15.4	1.6	0.063	mg/kg	D						N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	4380	80	1.4	mg/kg	D						N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	737	1.6	0.046	mg/kg	D						N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.035	0.029	0.0085	mg/kg		U	06A				N	1
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.42	4	0.23	mg/kg	JD	J	15				N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	17.3	0.8	0.07	mg/kg	D						N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-09-7	Potassium	1820	800	1.6	mg/kg	D						N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-22-4	Silver	0.034	0.24	0.015	mg/kg	JDB	J	15				N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-23-5	Sodium	57.2	800	7.5	mg/kg	JD	J	15				N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	12.8	1.6	0.074	mg/kg	D	J	12				N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-28-0	Thallium	0.23	1.6	0.14	mg/kg	JD	J	15				N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	1130	1.6	0.24	mg/kg	D						N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-62-2	Vanadium	73.8	8	2	mg/kg	D						N	10
017A068	NWO-017-5005	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	59.9	8	0.39	mg/kg	DB						N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	29900	80	2.2	mg/kg	D						N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.22	0.8	0.14	mg/kg	JD	J	15				N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-38-2	Arsenic	11.5	4	0.49	mg/kg	D						N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	198	4	0.18	mg/kg	D						N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-41-7	Beryllium	1.1	0.16	0.026	mg/kg	D						N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.16	0.4	0.11	mg/kg	JD	J	15				N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-70-2	Calcium	2300	800	4.5	mg/kg	D						N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	43	1.6	0.22	mg/kg	DB						N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	19.4	0.8	0.014	mg/kg	DB						N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	36.8	1.6	0.16	mg/kg	D						N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	43200	40	2.6	mg/kg	D						N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	16.3	1.6	0.063	mg/kg	D						N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	4430	80	1.4	mg/kg	D						N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	1050	1.6	0.046	mg/kg	D						N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.034	0.026	0.0077	mg/kg		U	06A				N	1
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.71	4	0.23	mg/kg	JD	J	15				N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	24.6	0.8	0.07	mg/kg	D						N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-09-7	Potassium	2460	800	1.6	mg/kg	D						N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7782-49-2	Selenium	0.92	4	0.78	mg/kg	JD	J	15				N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-22-4	Silver	0.031	0.24	0.015	mg/kg	JDB	J	15				N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-23-5	Sodium	43.3	800	7.5	mg/kg	JD	J	15				N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	22.5	1.6	0.074	mg/kg	D	J	12				N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-28-0	Thallium	0.34	1.6	0.14	mg/kg	JD	J	15				N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	298	1.6	0.24	mg/kg	D						N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-62-2	Vanadium	91.8	8	2	mg/kg	D						N	10
017A069	NWO-017-5006	29-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	77.7	8	0.39	mg/kg	DB						N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	38200	82.6	2.2	mg/kg	D						N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-38-2	Arsenic	7.6	4.1	0.5	mg/kg	D						N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	246	4.1	0.19	mg/kg	D						N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-41-7	Beryllium	1.3	0.17	0.026	mg/kg	D						N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.41	0.41	0.12	mg/kg	JD						N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-70-2	Calcium	3130	826	4.6	mg/kg	D						N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	38.4	1.7	0.23	mg/kg	DB						N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	16.1	0.83	0.014	mg/kg	DB						N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	37.8	1.7	0.17	mg/kg	D						N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	52400	41.3	2.6	mg/kg	D						N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	13.5	1.7	0.065	mg/kg	D						N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	6830	82.6	1.5	mg/kg	D						N	10

Attachment 2

Summary of Analytical Results greater than the MDL
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	1050	1.7	0.047	mg/kg	D						N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.052	0.031	0.0089	mg/kg		U	06A				N	1
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.87	4.1	0.24	mg/kg	JD	J	15				N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	27.6	0.83	0.073	mg/kg	D						N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-09-7	Potassium	2130	826	1.7	mg/kg	D						N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7782-49-2	Selenium	1.1	4.1	0.8	mg/kg	JD	J	15				N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-22-4	Silver	0.13	0.25	0.016	mg/kg	JDB	J	15				N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-23-5	Sodium	102	826	7.8	mg/kg	JD	J	15				N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	30.1	1.7	0.076	mg/kg	D	J	12				N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-28-0	Thallium	0.25	1.7	0.14	mg/kg	JD	J	15				N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	380	1.7	0.25	mg/kg	D						N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-62-2	Vanadium	89.6	8.3	2.1	mg/kg	D						N	10
017A070	NWO-017-5007	28-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	104	8.3	0.4	mg/kg	DB						N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	18800	80.6	2.2	mg/kg	D						N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-38-2	Arsenic	3.3	4	0.49	mg/kg	JD	J	15				N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	154	4	0.19	mg/kg	DB						N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-41-7	Beryllium	0.43	0.16	0.026	mg/kg	D						N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.13	0.4	0.11	mg/kg	JD	J	15				N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-70-2	Calcium	1940	806	4.5	mg/kg	D						N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	18.8	1.6	0.23	mg/kg	EDB						N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	9.3	0.4	0.014	mg/kg	D						N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	12.3	1.6	0.16	mg/kg	D						N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	19300	40.3	2.6	mg/kg	D						N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	8.8	1.6	0.064	mg/kg	D						N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	1220	80.6	1.5	mg/kg	D						N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	998	1.6	0.046	mg/kg	DB						N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.036	0.028	0.008	mg/kg							N	1
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.3	4	0.23	mg/kg	JD	J	15				N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	7.4	0.81	0.071	mg/kg	D						N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-09-7	Potassium	1110	806	1.6	mg/kg	ND						N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-22-4	Silver	0.035	0.24	0.015	mg/kg	JDB	J	15				N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-23-5	Sodium	29.7	806	7.6	mg/kg	JD	J	15				N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	14.5	1.6	0.074	mg/kg	D	J	19	12			N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-28-0	Thallium	0.27	1.6	0.14	mg/kg	JD	J	15				N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	381	1.6	0.24	mg/kg	D						N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-62-2	Vanadium	45.3	8.1	2	mg/kg	D						N	10
017A071	NWO-017-5008	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	31.9	8.1	0.4	mg/kg	EDB						N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	19400	80.6	2.2	mg/kg	D						N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-38-2	Arsenic	7.2	4	0.49	mg/kg	D						N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	99.1	4	0.19	mg/kg	DB						N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-41-7	Beryllium	0.71	0.16	0.026	mg/kg	D						N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.21	0.4	0.11	mg/kg	JD	J	15				N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-70-2	Calcium	1740	806	4.5	mg/kg	D						N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	28.7	1.6	0.23	mg/kg	EDB						N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	15.7	0.4	0.014	mg/kg	D						N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	20.8	1.6	0.16	mg/kg	D						N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	35000	40.3	2.6	mg/kg	D						N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	7.5	1.6	0.064	mg/kg	D						N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	2250	80.6	1.5	mg/kg	D						N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	668	1.6	0.046	mg/kg	DB						N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.026	0.03	0.0087	mg/kg	J	J	15				N	1
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.37	4	0.23	mg/kg	JD	J	15				N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	10.7	0.81	0.071	mg/kg	D						N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-09-7	Potassium	1600	806	1.6	mg/kg	ND						N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-22-4	Silver	0.031	0.24	0.015	mg/kg	JDB	J	15				N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-23-5	Sodium	35.8	806	7.6	mg/kg	JD	J	15				N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	20.2	1.6	0.074	mg/kg	D	J	19	12			N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-28-0	Thallium	0.15	1.6	0.14	mg/kg	JD	J	15				N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	292	1.6	0.24	mg/kg	D						N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-62-2	Vanadium	55.6	8.1	2	mg/kg	D						N	10
017A072	NWO-017-5009	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	39.8	8.1	0.4	mg/kg	EDB						N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7429-90-5	Aluminum	19700	79.4	2.1	mg/kg	D						N	10

Attachment 2

Summary of Analytical Results greater than the MDL
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.14	0.79	0.13	mg/kg	JND	J	15				N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-38-2	Arsenic	5.8	4	0.48	mg/kg	D						N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-39-3	Barium	117	4	0.18	mg/kg	DB						N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-41-7	Beryllium	0.67	0.16	0.025	mg/kg	D						N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.2	0.4	0.11	mg/kg	JD	J	15				N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-70-2	Calcium	1350	794	4.4	mg/kg	D						N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-47-3	Chromium	30.8	1.6	0.22	mg/kg	EDB						N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-48-4	Cobalt	11.8	0.4	0.013	mg/kg	D						N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-50-8	Copper	15.2	1.6	0.16	mg/kg	D						N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-89-6	Iron	26600	39.7	2.5	mg/kg	D						N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-92-1	Lead	17.2	1.6	0.063	mg/kg	D						N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-95-4	Magnesium	2250	79.4	1.4	mg/kg	D						N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-96-5	Manganese	623	1.6	0.045	mg/kg	DB						N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.041	0.03	0.0088	mg/kg							N	1
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.4	4	0.23	mg/kg	JD	J	15				N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-02-0	Nickel	10.9	0.79	0.07	mg/kg	D						N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-09-7	Potassium	1150	794	1.6	mg/kg	ND						N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-22-4	Silver	0.026	0.24	0.015	mg/kg	JDB	J	15				N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-23-5	Sodium	35	794	7.5	mg/kg	JD	J	15				N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-24-6	Strontium	12.3	1.6	0.073	mg/kg	D	J	19	12			N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-28-0	Thallium	0.19	1.6	0.13	mg/kg	JD	J	15				N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-32-6	Titanium	645	1.6	0.24	mg/kg	D						N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-62-2	Vanadium	60.2	7.9	2	mg/kg	D						N	10
017A073	NWO-017-5010	25-Aug-06	REG	0.08	0.5	SS	Metals	7440-66-6	Zinc	40.2	7.9	0.39	mg/kg	EDB						N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7429-90-5	Aluminum	20400	75.8	2	mg/kg	D						N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7440-36-0	Antimony	0.16	0.76	0.13	mg/kg	JND	J	15				N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7440-38-2	Arsenic	5.9	3.8	0.46	mg/kg	D						N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7440-39-3	Barium	121	3.8	0.17	mg/kg	DB						N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7440-41-7	Beryllium	0.68	0.15	0.024	mg/kg	D						N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7440-43-9	Cadmium	0.18	0.38	0.11	mg/kg	JD	J	15				N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7440-70-2	Calcium	1360	758	4.2	mg/kg	D						N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7440-47-3	Chromium	26.8	1.5	0.21	mg/kg	EDB						N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7440-48-4	Cobalt	12.1	0.38	0.013	mg/kg	D						N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7440-50-8	Copper	15.4	1.5	0.15	mg/kg	D						N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7439-89-6	Iron	26700	37.9	2.4	mg/kg	D						N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7439-92-1	Lead	17.6	1.5	0.06	mg/kg	D						N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7439-95-4	Magnesium	2370	75.8	1.4	mg/kg	D						N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7439-96-5	Manganese	643	1.5	0.043	mg/kg	DB						N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7439-97-6	Mercury	0.031	0.029	0.0083	mg/kg							N	1
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7439-98-7	Molybdenum	0.42	3.8	0.22	mg/kg	JD	J	15				N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7440-02-0	Nickel	11.5	0.76	0.067	mg/kg	D						N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7440-09-7	Potassium	1190	758	1.5	mg/kg	ND						N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7440-22-4	Silver	0.029	0.23	0.014	mg/kg	JDB	J	15				N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7440-23-5	Sodium	36.7	758	7.1	mg/kg	JD	J	15				N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7440-24-6	Strontium	12.4	1.5	0.07	mg/kg	D	J	19	12			N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7440-28-0	Thallium	0.17	1.5	0.13	mg/kg	JD	J	15				N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7440-32-6	Titanium	658	1.5	0.23	mg/kg	D						N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7440-62-2	Vanadium	63.4	7.6	1.9	mg/kg	D						N	10
017A073	NWO-017-5011	25-Aug-06	FD	0.08	0.5	SS	Metals	7440-66-6	Zinc	40.8	7.6	0.37	mg/kg	EDB						N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7429-90-5	Aluminum	36900	82.6	2.2	mg/kg	D						N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-38-2	Arsenic	1.6	4.1	0.5	mg/kg	JD	J	15				N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-39-3	Barium	142	4.1	0.19	mg/kg	DB						N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-41-7	Beryllium	0.74	0.17	0.026	mg/kg	D						N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-43-9	Cadmium	0.85	0.41	0.12	mg/kg	D						N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-70-2	Calcium	8060	826	4.6	mg/kg	D						N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-47-3	Chromium	100	1.7	0.23	mg/kg	EDB						N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-48-4	Cobalt	45.8	0.41	0.014	mg/kg	D						N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-50-8	Copper	134	3.3	0.33	mg/kg	DB						N	20
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7439-89-6	Iron	76000	41.3	2.6	mg/kg	D						N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7439-92-1	Lead	2.7	1.7	0.065	mg/kg	D						N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7439-95-4	Magnesium	12000	82.6	1.5	mg/kg	D						N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7439-96-5	Manganese	1290	1.7	0.047	mg/kg	DB						N	10

Attachment 2

Summary of Analytical Results greater than the MDL
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7439-97-6	Mercury	0.049	0.026	0.0074	mg/kg							N	1
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7439-98-7	Molybdenum	0.4	4.1	0.24	mg/kg	JD	J	15				N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-02-0	Nickel	44.2	0.83	0.073	mg/kg	D						N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-09-7	Potassium	568	826	1.7	mg/kg	JND	J	15				N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7782-49-2	Selenium	1	4.1	0.8	mg/kg	JD	J	15				N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-22-4	Silver	0.13	0.25	0.016	mg/kg	JDB	J	15				N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-23-5	Sodium	483	826	7.8	mg/kg	JD	J	15				N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-24-6	Strontium	52.4	1.7	0.076	mg/kg	D	J	19	12			N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-32-6	Titanium	4610	3.3	0.5	mg/kg	D						N	20
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-62-2	Vanadium	244	8.3	2.1	mg/kg	D						N	10
017A074	NWO-017-5012	24-Aug-06	REG	0.08	0.33	SD	Metals	7440-66-6	Zinc	81.2	8.3	0.4	mg/kg	EDB						N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7429-90-5	Aluminum	20400	79.4	2.1	mg/kg	D						N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-38-2	Arsenic	6	4	0.48	mg/kg	D						N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-39-3	Barium	140	4	0.18	mg/kg	D						N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-41-7	Beryllium	0.8	0.16	0.025	mg/kg	D						N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-43-9	Cadmium	0.34	0.4	0.11	mg/kg	JD	J	15				N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-70-2	Calcium	3960	794	4.4	mg/kg	D						N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-47-3	Chromium	17.5	1.6	0.22	mg/kg	DB						N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-48-4	Cobalt	13.1	0.79	0.013	mg/kg	DB						N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-50-8	Copper	23.8	1.6	0.16	mg/kg	D						N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7439-89-6	Iron	53900	39.7	2.5	mg/kg	D						N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7439-92-1	Lead	8.8	1.6	0.063	mg/kg	D						N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7439-95-4	Magnesium	4580	79.4	1.4	mg/kg	D						N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7439-96-5	Manganese	589	1.6	0.045	mg/kg	D						N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7439-97-6	Mercury	0.019	0.027	0.0079	mg/kg	J	U	06A				N	1
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7439-98-7	Molybdenum	0.55	4	0.23	mg/kg	JD	J	15				N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-02-0	Nickel	15.6	0.79	0.07	mg/kg	D						N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-09-7	Potassium	1540	794	1.6	mg/kg	D						N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-22-4	Silver	0.054	0.24	0.015	mg/kg	JDB	J	15				N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-23-5	Sodium	128	794	7.5	mg/kg	JD	J	15				N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-24-6	Strontium	21.3	1.6	0.073	mg/kg	D	J	12				N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-32-6	Titanium	908	1.6	0.24	mg/kg	D						N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-62-2	Vanadium	72.5	7.9	2	mg/kg	D						N	10
017A075	NWO-017-5013	28-Aug-06	REG	0.08	0.5	SD	Metals	7440-66-6	Zinc	92.4	7.9	0.39	mg/kg	DB						N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7429-90-5	Aluminum	21200	78.7	2.1	mg/kg	D						N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7440-38-2	Arsenic	5.6	3.9	0.48	mg/kg	D						N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7440-39-3	Barium	173	3.9	0.18	mg/kg	D						N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7440-41-7	Beryllium	0.84	0.16	0.025	mg/kg	D						N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7440-43-9	Cadmium	0.22	0.39	0.11	mg/kg	JD	J	15				N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7440-70-2	Calcium	3160	787	4.4	mg/kg	D						N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7440-47-3	Chromium	21	1.6	0.22	mg/kg	DB						N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7440-48-4	Cobalt	9.8	0.79	0.013	mg/kg	DB						N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7440-50-8	Copper	17.4	1.6	0.16	mg/kg	D						N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7439-89-6	Iron	35600	39.4	2.5	mg/kg	D						N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7439-92-1	Lead	11.1	1.6	0.062	mg/kg	D						N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7439-95-4	Magnesium	4410	78.7	1.4	mg/kg	D						N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7439-96-5	Manganese	451	1.6	0.045	mg/kg	D						N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7439-97-6	Mercury	0.051	0.03	0.0086	mg/kg		U	06A				N	1
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7439-98-7	Molybdenum	0.56	3.9	0.23	mg/kg	JD	J	15				N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7440-02-0	Nickel	16.5	0.79	0.069	mg/kg	D						N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7440-09-7	Potassium	1660	787	1.6	mg/kg	D						N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7440-22-4	Silver	0.056	0.24	0.015	mg/kg	JDB	J	15				N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7440-23-5	Sodium	96	787	7.4	mg/kg	JD	J	15				N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7440-24-6	Strontium	25.9	1.6	0.072	mg/kg	D	J	12				N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7440-28-0	Thallium	0.22	1.6	0.13	mg/kg	JD	J	15				N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7440-32-6	Titanium	564	1.6	0.24	mg/kg	D						N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7440-62-2	Vanadium	40.4	7.9	2	mg/kg	D						N	10
017A076	NWO-017-5014	29-Aug-06	REG	0.08	0.25	SD	Metals	7440-66-6	Zinc	72.5	7.9	0.39	mg/kg	DB						N	10
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7429-90-5	Aluminum	65.1	100	5.5	ug/L	J	J	15				N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7440-36-0	Antimony	0.17	1	0.13	ug/L	J	J	15				N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7440-39-3	Barium	20	5	0.15	ug/L	B						N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7440-70-2	Calcium	17800	1000	45.4	ug/L							N	1

Attachment 2

Summary of Analytical Results greater than the MDL
Camp Adair

Location	Sample Number	Sample Date	Sample Purpose	Start Depth (ft)	End Depth (Ft)	Sample Type	Fraction	CAS No.	Parameter	Results	PQL	MDL	Units	LQ	VQ	R1	R2	R3	R4	Fil	DF
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7440-48-4	Cobalt	0.28	1	0.016	ug/L	JB	J	15				N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7440-50-8	Copper	9.7	2	0.43	ug/L							N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7439-89-6	Iron	188	50	5.5	ug/L							N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7439-92-1	Lead	0.5	2	0.18	ug/L	J	J	15				N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7439-95-4	Magnesium	6850	100	4.8	ug/L							N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7439-96-5	Manganese	85.2	2	0.39	ug/L							N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7439-98-7	Molybdenum	1.2	5	0.12	ug/L	J	J	15				N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7440-02-0	Nickel	1.8	1	0.15	ug/L							N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7440-09-7	Potassium	469	1000	13.8	ug/L	J	J	15				N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7440-23-5	Sodium	8990	1000	12.5	ug/L							N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7440-24-6	Strontium	73.8	2	0.17	ug/L		J	19	12			N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7440-32-6	Titanium	5.4	2	0.29	ug/L							N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7440-62-2	Vanadium	4.6	10	2.5	ug/L	J	J	15				N	1
017A077	NWO-017-6001	14-Sep-06	REG	0	0	GW	Metals	7440-66-6	Zinc	45.3	10	1.8	ug/L							N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7429-90-5	Aluminum	22.9	100	5.5	ug/L	J	U	06A				N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7440-38-2	Arsenic	1.3	5	1	ug/L	J	J	15				N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7440-39-3	Barium	0.95	5	0.15	ug/L	JB	U	06A				N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7440-70-2	Calcium	1520	1000	45.4	ug/L							N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7440-48-4	Cobalt	0.021	1	0.016	ug/L	J	J	15				N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7440-50-8	Copper	1.4	2	0.43	ug/L	J	J	15				N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7439-89-6	Iron	27.6	50	5.5	ug/L	J	J	15				N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7439-92-1	Lead	0.28	2	0.18	ug/L	J	J	15				N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7439-95-4	Magnesium	24.5	100	4.8	ug/L	J	J	15				N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7439-96-5	Manganese	1.5	2	0.39	ug/L	J	J	15				N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7439-98-7	Molybdenum	1.8	5	0.12	ug/L	J	J	15				N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7440-02-0	Nickel	1.1	1	0.15	ug/L	B						N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7440-09-7	Potassium	150	1000	13.8	ug/L	J	J	15				N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7440-23-5	Sodium	97900	1000	12.5	ug/L							N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7440-24-6	Strontium	1.8	2	0.17	ug/L	J	J	19	12	15		N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7440-32-6	Titanium	0.76	2	0.29	ug/L	J	J	15				N	1
017A078	NWO-017-6002	19-Sep-06	REG	0	0	GW	Metals	7440-66-6	Zinc	10.3	10	1.8	ug/L							N	1

REG - regular field sample
FD - field duplicate
SS - surface soil (0 - 0.5ft)
SD - sediment
GW - groundwater
PQL - practical quantitation limit
MDL - method detection limit
LQ - laboratory qualifier
VQ - validation qualifier
R1 - reason code no. 1
R2 - reason code no. 2
R3 - reason code no. 3
R4 - reason code no. 4
Fil - filtered
DF - dilution factor
RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine
Tetryl - methyl-2,4,6-trinitrophenylnitramine
HMX - octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
PETN - pentaerythritol tetranitrate

ATTACHMENT 3

Approved Variances

Shaw
Shaw Environmental & Infrastructure, Inc.

Project Name	FUDS SI NWO	Project Number:	116188
Date Of Issue	4/13/06	Linked w/NC No: (if applicable)	N/A

- - Variance Report - -

V. Summary of the Change: (by the person identifying the change)

Section of DoD QSM or MMRP SI PSAP	DoD QSM or MMRP SI PSAP Requirement	Variance Request	Justification for Variance Request
QSM Appendix DoD-B Table B-2 Page 134 (8330A) (RT window width)	The Retention Time width is +/- 3x Standard Deviation from 72-hour study	The Retention Time window is the greater of +/- 3x Standard Deviation or ½ average peak width	Small Retention Time Standard Deviation can produce unrealistic windows. Employing ½ average peak width does not allow overlap between target analytes per method SW8330A. A comparison between the calculated retention time window and ½ the peak width for method SW8330A is provided for USACE review.
QSM D.1.2.1 (LOD) Page 88 (Limit of Detection)	The ratio between the mean recovered concentration and the calculated MDL should be 1 to 5 for water and 1 to 10 for other matrices.	Under our current MDL study the following analytes did not meet the ratio: <u>SW8330A</u> (soil only) Nitrobenzene 1,3 – Dinitrobenzene 1,3,5 –Trinitrobenzene 2,4,6 –Trinitrotoluene <u>SW8330A</u> (water only) 2-Nitrotoluene	MDL verification check was analyzed and supported the calculated MDL study for 2005. GPL will change the spike concentration to meet the QSM criteria for the MDL study scheduled for 2006. The MDL verification check sample chromatograph demonstrates good signal-to-noise ratio (>3x the level of noise) and a table comparing the MDL, the RL and the MDL check standard reported in "ug/l" units for method SW8330A is provided for USACE review.
MMRP SI PSAP Table 4-D Page D-31 (method 6020) IDL study	IDL less than or equal to MDL	GPL's IDLs are not required to be less than or equal to MDL	An IDL determines the detection limit based on the differences produced when reading the base line. The MDL determines a detection limit based on analyte concentration and the variations in the readings, just above the base line. The standard deviation obtained from MDLs above, and IDLs at the base line are very similar therefore, it would not be possible to produce IDLs that are always lower than the MDLs. Comparisons of GPL's IDLs and MDLs for method SW6020 are provided for USACE review.

Shaw
Shaw Environmental & Infrastructure, Inc.

Project Name	FUDS SI NWO	Project Number:	116188
Date Of Issue	4/13/06	Linked w/NC No: (if applicable)	N/A

V. Summary of the Change: (by the person identifying the change)

Section of DoD QSM or MMRP SI PSAP	DoD QSM or MMRP SI PSAP Requirement	Variance Request	Justification for Variance Request
MMRP SI PSAP Table 4-C; Page D-28 (6010B) Table 4-D; page D-33 (6020) ICBs / CCBs Interference Check Solutions	No metals detected ≥ 2X MDL	"B" flag data where the ICS-A, ICB and/or CCB: absolute value is ≥ 2X MDL.	To identify the possibility of error or bias in the reporting of data; GPL will "B" flag all metals whose ICS-A, ICB and/or CCB exceeds 2x MDL. GPL will conduct the following corrective action measures to reduce the possibility of carry-over contamination from biasing metal results: GPL will increase rinse time between analyses to 3 minutes (triple the method requirement). GPL will re-analyze all impacted metal results where contamination is detected in associated blanks at levels >1/2 RL.

Section of DoD QSM or MMRP SI PSAP	DoD QSM or MMRP SI PSAP Requirement	Point of Clarification
MMRP SI PSAP Section 7.1.1 Laboratory Report Requirements Page QAPP-7-1	All soils reported on a dry weight basis	Soil samples from MMRP FUDS firing ranges are required to pass through a No. 10 sieve before sample digestion and analysis. However, soils collected from these sites may exhibit characteristics (i.e., clayey) that prevent effective sieving. To standardize sample preparation for all samples collected at Shaw's MMRP FUDS firing ranges; GPL will follow homogenization procedures referenced in GPL's SOP H.36. GPL SOP H.36 involves air drying soil samples for a minimum of 24 hours before the sample is homogenized and passed through a No. 10 sieve. In addition to identifying all soil samples that require sieving on the CoC, Shaw will reference GPL's SOP H.36 "Homogenization Procedures for Firing Range Soil Samples". GPL's SOP H.36 is provided for USACE review.
Identified by: Tim Roth		Date: 4/13/06

Shaw
Shaw Environmental & Infrastructure, Inc.

Project Name	FUDS SI NWO	Project Number:	116188
Date Of Issue	4/13/06	Linked w/NC No: (if applicable)	N/A

VI. Variance Requested: (by the person identifying the variance and the review committee)

Tim Roth

To Be Performed by:	GPL, LLLC	Date:	
To Be Verified by:	Elsa Tai	Date:	

VII. Justification of Variance: (by the review committee)

See Section V. Justification of Variance

VIII. Applicable Document/Work Plan: (by the person identifying the change)

Shaw Environmental, Inc., 2006, Type I Work Plan, Site Inspections at Multiple Sites, NWO Region, Formerly Used Defense Sites, Military Munitions Response Program, February.

Distribution List:

Shaw Project Files
Paul Ioannides, GPL, LLLP
Sean Cupolo, GPL, LLLP
Elsa, Tai, GPL, LLLP
Mark Meacham, USACE-NWO
Cheryl Groenjes, USACE-NWO

Cheryl Groenjes
Cheryl Groenjes
5/16/06

- - Signatures - -

Requested by: **Tim Roth** Date: **5/10/06**
(printed name and date)
Signature: 5/10/06

Approved by: MARK MEACHAM Date: 5/16/06
(printed name and date)
Signature:

Proj. Mgr Approval: PETER KERSAW Date: 5/20/06
(printed name and date)
Signature:

QA Approval: RANDAL MCGEHEE Date: 6-22-06
(printed name and date)
Signature:

Appendix H
Geographical Information Systems Data

GIS Coordinates
Camp Adair

Elevation	Name	EAST	NORTH
260	001	483238	4946797
246	002	483185	4946905
236	003	483342	4946862
245	004	483331	4946889
220	005	481086	4954270
216	006	481240	4954346
283	007	476908	4954784
292	008	478494	4955216
258	009	475801	4954202
543	010	477717	4956568
277	011	478349	4957611
337	012	475261	4956038
0	013	476500	4954266
223	014	475158	4960279
220	015	475860	4959854
348	016	479262	4949264
509	017	475396	4950240
0	0174010	479130	4950319
0	017A001	479264	4949249
0	017A002	479049	4949687
0	017A003	478870	4950045
0	017A004	478671	4950522
0	017A005	478199	4952051
0	017A006	476880	4951438
0	017A007	476900	4950226
0	017A008	478074	4953885
0	017A009	478074	4952791
0	017A010	479128	4950311
0	017A011	480922	4950134
0	017A012	481491	4950161
0	017A013	481553	4950373
0	017A014	481848	4950565
0	017A015	480885	4950125
0	017A016	482599	4947808
0	017A017	482565	4948007
0	017A018	482583	4948220
0	017A019	482563	4948440
0	017A020	482536	4948397
0	017A021	483239	4946796
0	017A022	483333	4946866
0	017A023	483185	4946905
0	017A024	478496	4955212
0	017A025	477718	4956568
0	017A026	480361	4956028
0	017A027	480524	4956243
0	017A028	480246	4955677
0	017A029	478352	4957610
0	017A030	481396	4956976
0	017A031	475860	4959854
0	017A032	475166	4960276
0	017A033	478536	4958783
0	017A034	475262	4956038
0	017A035	478088	4961417
0	017A036	477766	4961777
0	017A037	473147	4962688

GIS Coordinates
Camp Adair

0	017A038	478583	4959693
0	017A039	481328	4958833
0	017A040	473445	4959902
0	017A041	479343	4963339
0	017A042	479042	4961720
0	017A043	479138	4960805
0	017A044	479861	4960721
0	017A045	470743	4959050
0	017A046	471054	4959755
0	017A047	469669	4959865
0	017A048	471866	4960168
0	017A049	471142	4959052
0	017A050	471934	4960809
0	017A051	478753	4947292
0	017A052	478992	4947555
0	017A053	479771	4947945
0	017A055	474529	4952185
0	017A056	474860	4952311
0	017A057	475061	4952809
0	017A059	481087	4954270
0	017A060	481241	4954320
0	017A061	475801	4954202
0	017A062	476908	4954783
0	017A064	477666	4946577
0	017A065	482497	4949015
0	017A066	482389	4949268
0	017A067	482994	4952017
0	017A068	471979	4959229
0	017A069	469316	4959114
0	017A070	472147	4963344
0	017A071	475876	4963645
0	017A072	476434	4963160
0	017A073	479488	4963986
0	017A074	474777	4950552
0	017A075	472342	4963545
517	018	476765	4950309
287	019	480248	4955592
451	020	480524	4956243
380	021	480362	4956028
203	022	481173	4958794
237	023	478535	4958782
195	024	478719	4959565
230	025	479127	4960809
307	026	479487	4963987
305	027	479043	4961722
360	028	476433	4963160
532	029	475860	4963706
413	030	471856	4960176
263	031	471979	4959229
272	032	471142	4959052
339	033	471054	4959755
332	034	470743	4959050
244	035	472135	4963342
233	036	472287	4963377
252	037	473146	4962688
585	038	469205	4959248

GIS Coordinates
Camp Adair

549	039	469876	4959877
362	040	477766	4961778
324	041	478087	4961417
263	042	464965	4952863
275	043	479810	4947978
380	044	478752	4947293
350	045	478991	4947555
231	046	475070	4952822
332	047	482558	4948451
347	048	482585	4948217
377	049	482601	4947811
429	050	482542	4947911
274	051	479048	4949687
338	052	478857	4950079
251	053	478198	4952050
231	054	478075	4952744
313	055	476880	4951438
350	056	478674	4950525
287	057	480922	4950134
287	058	481553	4950373
280	059	474861	4952311
302	060	474531	4952188
289	061	482497	4949016
284	062	482390	4949268
246	063	477982	4953898
221	064	482993	4952017
513	065	481491	4950161
291	066	481832	4950517
254	067	475066	4952825
297	068	479814	4947975
369	069	478991	4947556
389	070	478751	4947297
410	071	477666	4946578
329	072	482562	4948445
339	073	482586	4948214
385	074	482609	4947811
410	075	482566	4947996
350	076	478991	4947555
373	077	482535	4948394
284	078	480984	4950119
259	079	478691	4960011
358	080	478929	4947338
227	081	483059	4952229
263	082	472611	4959360
275	083	479738	4963356
248	084	473471	4959875
303	085	476716	4960994
270	086	481410	4957086
289	087	475846	4953023
381	088	478415	4949629

Appendix I
Geophysical Data

This appendix is not used.

Appendix J
Conceptual Site Model

Overview

A site-specific Conceptual Site Model (CSM) summarizes available site information and identifies relationships between exposure pathways and associated receptors. A CSM is used to determine the data types necessary to describe site conditions and quantify receptor exposure, and discusses the following information:

- Current and future land use;
- Potential contaminant sources (e.g., lead projectiles in an impact berm);
- Affected media;
- Governing fate and transport processes (e.g., surface water runoff and/or groundwater migration);
- Exposure media (i.e., media through which receptors could contact site-related contamination);
- Routes of exposure (e.g., inhalation, incidental ingestion, and dermal contact); and
- Potential human and/or representative ecological receptors at the exposure point. Receptors likely to be exposed to site contaminants are identified based on current and expected future land uses.

This CSM was updated as new information was gathered and as sampling was completed. Based on similar historical use, MEC/MC, and environmental conditions, the following types of AOCs are identified within Camp Adair:

- Small Arms Ranges (5);
- Explosive Munitions Ranges (6);
- Live Hand Grenade Courts (3);
- Practice Grenade Courts (6); and
- Chemical Identification Area (1).

In the section that follows a CSM is presented for each AOC group, and MEC and MC are analyzed.

The ASR and/or ASR Supplement indicate that MEC ("duds") have been found in a number of the explosive ranges. In addition, MEC has been found in and immediately surrounding the former cantonment area. One anti-tank rocket was found on the Camp Adair Parade Ground and a mortar round was found while excavating for two ponds in the south central portion of the cantonment area. A third MEC was reported just west of Highway 99 and the northwest corner of the cantonment area. These finds have not been related to any known AOC.

The following table relates the 21 AOCs evaluated in this CSM with the 19 MRA/MRSs identified in the SI Report.

Areas of Concern and MRAs/MRSs

Munitions Response Area/ Munitions Response Site	**Area of Concern**
MRA/MRS No. 1	Range Complex No. 1, Range Complex No 2, Bombing Target No. 1
MRS No. 2	Range Complex No. 3
MRS No. 3	East Live Hand Grenade Court
MRS No. 4	Live Hand Grenade Court No. 129
MRS No. 5	West Live Hand Grenade Court
MRS No. 6	Moving Target Range No. 75
MRS No. 7	Range Complex No. 4
MRS No. 8	Mortar Range
MRS No. 9	Range Complex No. 5
MRS No. 10	Range Complex No. 6
MRS No. 11	Infiltration Range No. 143
MRS No. 12	Skeet Range No. 580
MRS No. 13	Practice Grenade Court No. 120
MRS No. 14	Practice Grenade Court No. 121
MRS No. 15	Practice Grenade Court No. 122
MRS No. 16	Practice Grenade Court No. 125
MRS No. 17	Practice Grenade Court No. 126
MRS No. 18	Practice Grenade Court No. 127
MRS No. 19	Chemical Identification Area No. 182

Conceptual Site Model – Small Arms Ranges

There are five small arms range AOCs and sub-ranges at Camp Adair as follows:

- Infiltration Range No. 143
- Range Complex No. 4
  - Known Distance Rifle Range No. 1
  - Known Distance Rifle Range No. 2
  - Known Distance Rifle Range No. 3
  - Known Distance Rifle Range No. 4
  - Thompson Sub Machine Gun Range No. 50
  - Thompson Sub Machine Gun Range No. 50A
  - Mini Anti-Aircraft Range No. 60, 61, 62
  - Mini Anti-Aircraft Range No. 65, 66, 67
  - Anti-Aircraft Range No. 70
  - Field Combat Range No. 80
  - Field Combat Range No. 80A
  - Field Combat Range No. 80B
  - Field Combat Range No. 81
  - Infiltration Range No. 141
  - Transition Course No. 160
  - Close Combat Course No. 170
- Range Complex No. 5
  - 1000-inch Machine Gun Range No. 20, 21, 22, 23
  - 1000-inch Anti-Tank Range No. 45, 46
  - 1000-inch Anti-Tank Range No. 40, 41
  - 1000-inch Pistol Range No. 15
  - 1000-inch Landscape Range No. 35, 36, 37
- Range Complex No. 6
  - 1000-inch Landscape Range No. 11
  - 1000-inch Landscape Range 30, 31, 32
  - 1000-inch Landscape Range No. 33
  - 1000-inch Landscape Range No. 34
- Skeet Range No. 580

Current and Future Land Use

- A large portion of the small arms range AOCs are currently residential properties.
- Other uses include a county park adjacent to residential areas (Skeet Range No. 580), landfill (Infiltration Range No. 143), state forest, and an active National Guard small arms range and maneuver area (portions of Range Complex No. 4).
- Portions of Range Complex No. 4 currently being used by the Oregon National Guard will not be included in this SI due to active training activities at the site.
- Infiltration Range No. 143 is not accessible for purposes of this SI. The range area is now incorporated into the Coffin Butte Landfill and has been heavily excavated and covered with municipal waste.
- Future land use is anticipated to remain consistent with current uses.

Former Range Use

- The ranges were used by the Army between 1942 and 1945, with the exception of the skeet range, which was used between 1955 and 1964 as part of the Adair Air Force Station facility.
- Weapons used at these ranges were limited to small arms (.22- to .50-caliber).
- Known use of explosives at these ranges was limited to static charges of dynamite or trinitrotoluene (TNT) (detonated with blasting caps) in craters at Infiltration Range No. 141 (Range Complex No. 4) and Infiltration Range No. 143.
- At some ranges, small arms fire would tend to be concentrated in backstops; i.e., manmade berms or natural hillsides (Figure 20 of the *Final TPP Memorandum*). Berms are still evident at Known Distance Rifle Ranges No. 1 through 4 (Range Complex No. 4).
- At other ranges, small arms fire would tend to be dispersed over a wide area; e.g., the anti-aircraft ranges and the skeet range (Figure 21 of the *Final TPP Memorandum*).

MEC Evaluation

Types of MEC

- The munitions used at these AOCs were limited to small arms rounds, which do not pose a significant explosive hazard.
- Limited use of explosives (dynamite, TNT, and blasting caps) on two infiltration ranges was more highly controlled than typical use of explosive munitions. Static charges were detonated in craters within the courses to simulate combat conditions. The potential for unexploded ordnance to be present at these locations is low, although there is some potential for unknown explosive munitions.
- Based on non-infantry use of the skeet range by the Air Force, the Skeet Range No. 580 AOC is considered to pose no significant risk from MEC.

Surface Exposure Pathway

- Low MEC risk is associated with potential for unknown use of explosive MEC at the small arms ranges.

Subsurface Exposure Pathway

- Low MEC risk is associated with potential for unknown use of explosive MEC at the small arms ranges.

An analysis of the exposure pathways and receptors for MEC are provided in Table 2 of the *Final TPP Memorandum*.

SI Results

- Visual reconnaissance and localized magnetometer sweeps were conducted to assess the presence of MEC within the Small Arms Ranges and to avoid MEC during sampling activities. No MEC was observed. A single 7.62 mm bullet was found at Range Complex No. 4.

MC Evaluation

Types of MC

- The anticipated MC at the small arms ranges is lead from the munitions debris.
- A relatively small quantity of copper and antimony are present in military bullets. Because lead accounts for more than 96 percent of the bullet mass, analysis for lead alone will be adequate as an indicator of MC contamination.
- The only known potential use of explosives at the small arms ranges was limited to infiltration courses, which typically used reduced charges of explosives placed in craters to simulate combat conditions. Two infiltration courses have been identified: Infiltration Range No. 141 (within Range Complex No. 4), and Infiltration Range No. 143. Neither of these locations is accessible for purposes of the site inspection. Infiltration Range No. 141 is located in the active National Guard facility. The area of Infiltration Range No. 143 is now a landfill; the range area is no longer accessible and has been heavily excavated and covered with municipal waste (statement by Brian Stone of Allied Waste during TPP meeting).
- Perchlorate may have been present in tracer rounds where .50-caliber machine guns were used (Range Complex Nos. 4 and 5).
- Polycyclic aromatic hydrocarbons (PAH) may be present from targets used at Skeet Range No. 580.

Overview of Pathways

Affected media and potential pathways for MC include:

- Soil: Soil is the primary medium of concern because of possible MC in the soil from training activities. The soil also serves as a source of potential air, surface water, or groundwater contamination.

- Surface Water/Sediment: Surface water may act as a migration pathway from potential sources of contamination in soil. Accumulation of lead and explosives may occur in sediment along surface water migration pathways through mass transport of soil into streams and leaching of contamination into surface water. Sediment is the primary sample medium to assess surface water pathways.
- Groundwater: Groundwater is considered a potentially affected media because it is generally present within 40 ft of ground surface. Groundwater may also serve as a migration path to downgradient surface water.
- Air: Inhalation of MC in vapor form is not a pathway of concern for non-volatile MC under normal environmental conditions. Potential inhalation of soil particles is included in the development of health-based screening values for soil.

Potential exposure media at the small arms ranges include soil, surface water/sediment, and groundwater. A pathway evaluation for these media is discussed below and provided in Table 2 of the *Final TPP Memorandum*.

Soil Exposure Pathway

Exposure Routes

- The potential routes of human exposure to contaminated soils include incidental ingestion of and dermal contact with contaminated media, as well as inhalation of soil particulates during intrusive work.
- The potential routes of wildlife exposure to contaminated soils include ingestion of and direct contact with contaminated media. Plants may uptake MC and then subsequently be eaten by wildlife. Burrowing animals may ingest MC-contaminated soil and subsequently be eaten by predators.

Receptors

- Residents.
- Workers (farmers, foresters, etc.).
- Recreational users.
- Wildlife.

SI Results

Analytical results from soil samples collected during the SI indicate the following:

- There were no exceedances of background concentrations and the EPA Region 9 PRGs for human health. Therefore, there is no expected adverse impact to human health from military activity at the five AOCs included in the small arms ranges.
- The detected concentration for lead in two surface soil samples from Range Complex No. 4 exceeded the background concentration (29.5 mg/kg) and the ecological screening value (16 mg/kg). Based on the SLERA (Appendix L), adverse ecological effects are possible at Range Complex No. 4.

- The detected concentration for lead in two surface soil samples from the Skeet Range No. 580 exceeded the background concentrations (29.5 mg/kg) and the ecological screening value (16 mg/kg). Based on the SLERA (Appendix L) adverse ecological effects are possible at Skeet Range No. 580.
- PAHs were detected in one soil sample from the Skeet Range No. 580. Concentrations were all below human health and ecological screening levels.

Surface Water/Sediment Exposure Pathway

Exposure Routes

- The potential routes of human exposure to contaminated surface water and sediment include ingestion, dermal contact, and inhalation.
- The potential routes of wildlife (including aquatic organisms) exposure to contaminated surface water include ingestion and direct contact.

Receptors

- Residents.
- Workers (farmers, foresters, etc.).
- Recreational users.
- Wildlife.

SI Results

- No surface water samples were collected during the SI field work. Analytical results from the sediment sample indicate no exceedances of Camp Adair sediment background concentrations and human health or ecological screening values. There does not appear to be an impact to sediments at the small arms ranges based on the sediment sample collected at the small arms ranges.

Groundwater Exposure Pathway

Exposure Routes

- The potential routes of human exposure to contaminated groundwater include ingestion and dermal contact where groundwater is used as a water supply.
- Direct exposure of wildlife to groundwater is not a concern.

Receptors

- Residents.
- Workers (farmers, foresters, etc.).
- Recreational users.

SI Results

There were no exceedances of Camp Adair groundwater background values and human health risk screening values. There does not appear to be an impact to groundwater at the small arms ranges based on the four groundwater samples collected at the small arms ranges.

Conceptual Site Model – Explosive Munitions Ranges

There are six explosive munitions range AOCs and sub-ranges at Camp Adair as follows:

- Range Complex No. 1
  - Fortified Training Area No. 76
  - Bombing Target No. 2
- Range Complex No. 2
  - Field Combat Range No. 51
  - Moving Target Range No. 79A
  - Moving Target Range No. 79B
  - Field Combat Range No. 83
  - Field Combat Range No. 84
  - Field Combat Range No. 84A
  - Field Combat Range No. 85
  - Field Combat Range No. 86
  - Field Combat Range No. 86A
  - Field Combat Range No. 87
  - Field Combat Range No. 87A
  - Field Combat Range No. 87B
  - Field Combat Range No. 88
  - Field Combat Range No. 89B
  - Mortar Range No. 90
  - Infiltration Range No. 142
- Bombing Target No. 1
- Range Complex No. 3
  - Field Combat Range No. 89
  - Field Combat Range No. 89A
  - Field Combat Range No. 89C
- Mortar Range
- Moving Target Range No. 75

Current and Future Land Use

- A large portion of the explosive munitions range AOCs are located in the north half of the FUDS on private land. Land use is largely agricultural and forestry related, with a relatively low number of residences (less than 300).
- Two ranges in the south half of the FUDS are principally located on state forest land.
- Future land use is anticipated to remain consistent with current uses.

Former Range Use

- The ranges were used by the Army between 1942 and 1945.
- Navy and Marine Corps pilots also conducted bombing and gunnery operations in the north area of the FUDS sometimes referred to as the artillery range (principally Range Complex Nos. 1 and 2 and Bombing Target No. 1).
- Munitions used varied from range to range but at Range Complex Nos. 1 and 2, all infantry and crew-served conventional weapons were authorized for use. Weapons used included the .30-caliber rifle, automatic rifle, .30-caliber light and heavy machine guns, .50-caliber machine gun, anti-tank guns, 105-mm and 155-mm howitzers, mortars, and 2.36-inch anti-tank and practice rockets.
- Exercises included support by tank and aircraft (the latter using 100-pound (lb), 300-lb, and 500-lb general-purpose and practice bombs).
- Explosives, blasting caps, and incendiary, illumination, and smoke devices were also used.
- The range complexes included many overlapping safety fans and supported multiple activities that simulated combat conditions (Figure 22 of the *Final TPP Memorandum*).
- Much of the explosive munitions fire was directed toward specific targets, creating impact areas. A 1947 Certificate of Clearance included a recommendation that three land tracts be restricted to grazing or timbering activity due to a high concentration of shell firing.
- Craters caused by explosive munitions were visible during and shortly after the use of these ranges, but these areas have generally been regraded for agricultural or other purposes.

MEC Evaluation

Types of MEC

- The munitions used in Range Complex Nos. 1 and 2 included the full range of infantry munitions described above.
- Munitions at Range Complex No. 3 included general small arms, .50-caliber machine gun, large caliber high explosive projectiles (105-mm HE M1, 155-mm HE M107, 37-mm HE M54, 57-mm APC-T M86, and mortars (60-mm HE M49, 81-mm HE M43, 60-mm practice M50A2, 81-mm TP M43A1).

- Munitions at the Mortar Range included general small arms and mortars (60-mm HE M49, 81-mm HE M43, 60-mm Training M69, 60-mm Training M50A2, 81-mm Training M68, and 81-mm Training M43A1).
- Munitions at the Moving Target Range No. 75 included large caliber projectiles (75-mm HE M48, 37-mm AP M74).
- A listing of munitions used on the explosive munitions ranges is provided on Table 1 of the *Final Site Specific Work Plan (SSWP)*.
- The ASR and/or ASR Supplement indicate that MEC ("duds") have been found at the following explosive munitions ranges (locations of reported MEC finds are plotted on the figures of each AOC):
    - Range Complex No. 1
    - Range Complex No. 2
    - Mortar Range
    - Moving Target Range No. 75
- The potential hazard from MEC is moderate, as indicated by reported encounters of explosive MEC since the late 1940s and as recently as 2001. Reported encounters with MEC have decreases in recent years

Surface Exposure Pathway

- The potential route of human exposure to MEC or munitions debris includes direct contact by vehicles, foot traffic, or handling. Human exposure would potentially include residents, workers, and recreational users.
- The potential route of wildlife exposure to MEC or munitions debris would be by direct contact.

Subsurface Exposure Pathway

- The potential routes of human exposure to MEC or munitions debris would be through intrusive activity, agricultural tilling, or geologic instability (erosion, freeze-thaw, etc.).
- The potential route of wildlife exposure to MEC or munitions debris would be by burrowing activities or geologic instability.

An analysis of the exposure pathways and receptors for MEC are provided in Table 2 of the *Final TPP Memorandum*.

SI Results

- The presence of MEC has been established for the Explosive Munitions Ranges and no visual reconnaissance or magnetometer sweeps were conducted to assess the presence of MEC. MEC avoidance surveys were completed prior to sample collection. No MEC or munitions debris was found during Si field activities.

MC Evaluation

Types of MC

- The anticipated MC at the explosive munitions ranges is primarily residual explosive compounds from munitions that underwent high-order (normal) or low-order detonation, or from undetonated munitions.
- To a lesser degree, there is a potential for the presence of elevated concentrations of metals. Sources would primarily include the metallic content of the projectiles and other munitions components. Small quantities of metals were also used in tracers, incendiary mixtures, and in primary explosives.
- Perchlorate may have been present as a component of some munitions, i.e., in tracer rounds where .50-caliber machine guns were used (Range Complex Nos. 1, 2, and 3, and Mortar Range) and 2.36-inch rockets.

Overview of Pathways

Affected media and potential pathways for MC include:

- Soil: Soil is the primary medium of concern because of possible MC in the soil from training activities. The soil also serves as a source of potential air, surface water, or groundwater contamination.
- Surface Water/Sediment: Surface water may act as a migration pathway from potential sources of contamination in soil. Accumulation of explosives and metals may occur in sediment along surface water migration pathways through mass transport of soil into streams and the leaching of contaminants into surface water. Sediment is the primary sample medium to assess surface water pathways.
- Groundwater: Groundwater is considered a potentially affected media because it is generally present within 40 ft of ground surface. Groundwater may also serve as a migration path to downgradient surface water.
- Air: Inhalation of MC in vapor form is not a pathway of concern for non-volatile MC under normal environmental conditions. Potential inhalation of soil particles is included in the development of health-based screening values for soil.

Potential exposure media at the explosive munitions ranges include soil, surface water/sediment, and groundwater. A pathway evaluation for these media is discussed below and provided in Table 2 of the *Final TPP Memorandum*.

Soil Exposure Pathway

Exposure Routes

- The potential routes of human exposure to contaminated soils include incidental ingestion of and dermal contact with contaminated media, as well as inhalation of soil particulates during intrusive work.
- The potential routes of wildlife exposure to contaminated soils include ingestion of and direct contact with contaminated media. Plants may uptake MC and then subsequently

be eaten by wildlife. Burrowing animals may ingest MC-contaminated soil and subsequently be eaten by predators.

Receptors

- Residents.
- Workers (farmers, foresters, etc.).
- Recreational users.
- Wildlife.

SI Results

Based on analytical results from surface soil samples collected during the SI, the soil pathway impacts are as follows:

- There were no exceedances of background concentrations and the EPA Region 9 PRGs for human health.
- Molybdenum from Range Complex No. 3, chromium in samples from the Mortar Range, and barium in a sample from Moving Target Range No. 75 exceeded both the soil background value and the ecological screening value. Based on the SLERA, the maximum detected concentrations of these metals in soil exceed the ecological screening values by a considerable amount, and adverse ecological effects are possible.

Based on the above discussion, military activity at the explosive munitions ranges has not resulted in an adverse impact to human health via the terrestrial pathway. However, there appears to be potential ecological impacts in soil at the Range Complex No. 3, Mortar Range, and Moving Target Range No. 75.

Surface Water/Sediment Exposure Pathway

Exposure Routes

- The potential routes of human exposure to contaminated surface water and sediment include ingestion, dermal contact, and inhalation of water.
- The potential routes of wildlife (including aquatic organisms) exposure to contaminated surface water include ingestion and direct contact.

Receptors

- Residents.
- Workers (farmers, foresters, etc.).
- Recreational users.
- Wildlife.

SI Results

- No surface water samples were collected during the SI field work. Results from sediment sampling indicate the military activity at the explosive munitions ranges has

not resulted in adverse impact to sediments with respect to human health or ecological receptors.

Groundwater Exposure Pathway

Exposure Routes

- The potential routes of human exposure to contaminated groundwater include ingestion and dermal contact where groundwater is used as a water supply.
- Direct exposure of wildlife to groundwater is not a concern.

Receptors

- Residents.
- Workers (farmers, foresters, etc.).
- Recreational users.

SI Results

Based on analytical results from groundwater samples collected during the SI, the groundwater pathway impacts are as follows:

- Iron, molybdenum, and cobalt were detected at concentrations greater than three times their respective background values and may indicate a release to the environment has occurred.
- Iron in one sample and manganese in a second sample from Range Complex No. 2 significantly exceeded (by a factor of 3) their respective Camp Adair maximum background concentration and the secondary federal MCL, but did not exceed the EPA Region 9 tap water PRG. Both the iron and manganese MCLs are secondary MCLs that reflect primarily taste and odor impacts and are not a human health risk.
- No other groundwater analytical results significantly exceeded the maximum groundwater background values and human health screening values.
- Explosive compounds were detected at estimated concentrations between the MDL and PQL in one groundwater sample from a well located adjacent to Range Complex No. 1. All detections were below groundwater human health screening values.
- Based on the above discussion, military activity at the explosive munitions ranges has not resulted in an adverse impact to groundwater with respect to human health.

Conceptual Site Model – Live Hand Grenade Courts

There are three live hand grenade court AOCs at Camp Adair as follows:

- East Live Hand Grenade Courts
- West Live Hand Grenade Courts
- Live Hand Grenade Court No. 129

Current and Future Land Use

- These AOCs are currently used for agriculture and tree farming.
- Agricultural buildings and/or residences are located near each AOC.
- Future land use is anticipated to remain consistent with current uses.

Former Range Use

- The ranges were used by the Army between 1942 and 1945.
- The courts were used for training in the use of live (explosive) and/or training hand grenades.
- Grenades were thrown from individual throwing bays constructed from sandbags or concrete, or from a trench.
- Grenades were thrown toward targets in an impact area approximately 25 yards from the throwing line (see Figure 23 of the *Final TPP Memorandum*).
- A danger area of approximately 600 ft would have been established around each court.

MEC Evaluation

Types of MEC

- The munitions used included the Mk II fragmentation hand grenade.
- M21 Practice grenades, which contained only small spotting charges of black powder, may also have been used.
- The potential hazard from MEC is moderate, as indicated by reported encounters with hand grenades by local residents in the vicinity of at least two of the courts.

Surface Exposure Pathway

- The potential route of human exposure to MEC or munitions debris includes direct contact by vehicles, foot traffic, or handling. Human exposure would potentially include residents, workers, and recreational users.
- The potential route of wildlife exposure to MEC or munitions debris would be by direct contact.

Subsurface Exposure Pathway

- The potential routes of human exposure to MEC or munitions debris would be through intrusive activity, agricultural tilling, or geologic instability (erosion, freeze-thaw, etc.).
- The potential route of wildlife exposure to MEC or munitions debris would be by burrowing activities or geologic instability.

An analysis of the exposure pathways and receptors for MEC are provided in Table 2 of the *Final TPP Memorandum*.

SI Results

- The presence of MEC has been established for the Live Hand Grenade Courts and no visual reconnaissance or magnetometer sweeps was conducted to assess the presence of MEC. MEC avoidance surveys were completed during sampling activities. No MEC or munitions debris was observed during the SI field activities

MC Evaluation

Types of MC

- The anticipated MC at the explosive munitions ranges is primarily residual explosive compounds from grenades that underwent high-order (normal) or low-order detonation, or from undetonated munitions. The explosive charges used in the Mk II grenades were 2 ounces of TNT (or E.C. Blankfire smokeless powder, consisting largely of nitrocellulose, in older models).
- To a lesser degree, there is a potential for the presence of elevated concentrations of metals from the grenade housing and components which are made primarily from cast iron and steel.

Overview of Pathways

Affected media and potential pathways for MC include:

- Soil: Soil is the primary medium of concern because of possible MC in the soil from training activities. The soil also serves as a source of potential air, surface water, or groundwater contamination.
- Surface Water/Sediment: Surface water may act as a migration pathway from potential sources of contamination in soil (sediment). Accumulation of explosives and metals may occur in sediment along surface water migration pathways through mass transport of soil into streams and the leaching of contaminants into surface water.
- Groundwater: Groundwater is considered a potentially affected media because it is generally present within 40 ft of ground surface. Groundwater may also serve as a migration path to downgradient surface water.
- Air: Inhalation of MC in vapor form is not a pathway of concern for non-volatile MC under normal environmental conditions. Potential inhalation of soil particles is included in the development of health-based screening values for soil.

Potential exposure media at the explosive munitions ranges include soil, surface water/sediment, and groundwater. A pathway evaluation for these media is discussed below and provided in Table 2 of the *Final TPP Memorandum*.

Soil Exposure Pathway

Exposure Routes

- The potential routes of human exposure to contaminated soils include incidental ingestion of and dermal contact with contaminated media, as well as inhalation of soil particulates during intrusive work.
- The potential routes of wildlife exposure to contaminated soils include ingestion of and direct contact with contaminated media. Plants may uptake MC and then subsequently be eaten by wildlife. Burrowing animals may ingest MC-contaminated soil and subsequently be eaten by predators.

Receptors

- Residents.
- Workers (farmers, foresters, etc.).
- Recreational users.
- Wildlife.

SI Results

Based on analytical results from surface soil samples collected during the SI, the terrestrial pathway impacts are as follows:

- There were no exceedances of background concentrations and the EPA Region 9 PRGs for human health. Therefore, there is no adverse impact to humans from military activity at the three AOCs included in the Live Hand Grenade Court.
- There were no exceedances of background concentrations and the ecological screening values. Therefore, no adverse impact to ecological receptors from military activity at the three AOCs included in the Live Hand Grenade Court would be expected.

Based on the above discussion, military activity at the live hand grenade courts has not resulted in an adverse impact to human or ecological receptors inform potential exposure to soils.

Surface Water/Sediment Exposure Pathway

Exposure Routes

- The relatively flat location of these AOCs would tend to limit the mobility of MC from the grenade court areas via the surface water/sediment pathway.
- The potential routes of human exposure to contaminated surface water and sediment include ingestion, dermal contact, and inhalation.
- The potential routes of wildlife (including aquatic organisms) exposure to contaminated surface water include ingestion and direct contact.

Receptors

- Residents.
- Workers (farmers, foresters, etc.).
- Recreational users.
- Wildlife.

SI Results

No surface water samples were collected during the SI field work. Based on analytical results from sediment samples collected during the SI, there were no significant exceedances of background concentrations.

Groundwater Exposure Pathway

Exposure Routes

- The potential routes of human exposure to contaminated groundwater include ingestion and dermal contact where groundwater is used as a water supply.
- Direct exposure of wildlife to groundwater is not a concern.

Receptors

- Residents.
- Workers (farmers, foresters, etc.).
- Recreational users.

Groundwater MC Evaluation/Investigation Needed

No groundwater samples were collected from the Live Hand Grenade Courts. It was agreed at the TPP meeting that groundwater sampling would not be required due to the proximity of the AOC boundaries with those of Range Complex Nos. 1 and 2. No significant impacts to groundwater were observed in wells located near the Live Hand Grenade Courts.

Conceptual Site Model – Practice Grenade Courts

There are six practice grenade court AOCs at Camp Adair as follows:

- Practice Grenade Court No. 120
- Practice Grenade Court No. 121
- Practice Grenade Court No. 122
- Practice Grenade Court No. 125
- Practice Grenade Court No. 126
- Practice Grenade Court No. 127

Current and Future Land Use

- These AOCs are located on privately owned land and air photos suggest they are being used for agricultural purposes.
- The AOCs are located near the E.E. Wilson Wildlife Refuge. The ASR Supplement states that they are located in a wildlife reserve, "part of the Wilson Game Management Area."
- The closest residence appears to be more than 1,000 ft from three of the courts (No. 125, 126, and 127).
- Residences are not located within several thousand feet of courts No. 120, 121, and 122.
- Future land use is anticipated to remain consistent with current uses.

Former Range Use

- The ranges were used by the Army between 1942 and 1945.
- The courts were used to allow men to throw training or practice grenades prior to throwing a live grenade (see Figure 24 of the *Final TPP Memorandum*).
- A typical practice court consisted of a number of individual courts designed to allow men to throw under a variety of conditions.

MEC Evaluation

Types of MEC

- The munitions used at the practice courts would have included the Mk 1A1 training grenade, an inert device made of cast iron with the approximate shape, size, and weight of an actual hand grenade.
- The munitions used at the practice courts may also have included the M21 practice grenades, reusable devices which contained only small charges of black powder to simulate the detonation of a live grenade.
- There is not a significant hazard from MEC associated with the practice courts, based on the training devices used, as indicated in Table 1 of the *Final SSWP*.

SI Results

- No visual reconnaissance or magnetometer sweeps were conducted to assess the presence of MEC at the Practice Grenade Courts.

<u>MC Evaluation</u>

Types of MC

- The small quantity of black powder (consisting of potassium nitrate, sulfur, and charcoal) associated with training grenades does not pose a significant risk of environmental contamination, as indicated in Table 1 of the *Final SSWP*.

SI Results

- No field investigation was completed for the practice grenade courts.

Conceptual Site Model – Chemical Identification Area No. 182

There is one chemical identification area at Camp Adair as follows:

- Chemical Identification Area No. 182

Current and Future Land Use

- This AOC is located on privately owned land and air photos suggest it is being used for agricultural purposes
- The closest residences appear to be between 1000 ft and 2000 ft from the area.
- Future land use is anticipated to remain consistent with current uses.

Former Range Use

- The area was used by the Army between 1942 and 1945.
- According to a Camp Adair Training Aids General Layout map dated January 1944, Range No. 182 was used for chemical warfare materiel (CWM) recognition and decontamination exercises. Another map lists the area as a gas chamber.
- CWM recognition training was likely to have included the use of "sniff sets" and/or detonation sets.
- "Sniff sets" were several bottles containing small quantities of CWM gases or solids; bottles were opened so that trainees could experience the smell of the specific CWM.
- Detonation sets were several containers holding larger quantities of CWM agents, which were detonated, creating an agent cloud. Trainees would then try to identify the agent based on its odor and other characteristics.
- Decontamination exercises, as documented in historical photos from the camp, involved small sections of wooden floors and walls contaminated by vesicant gas (mustard and lewisite) being treated with a decontaminant solution such as "chloride of lime."
- Other CWM activities documented at Camp Adair, but no specific location has been identified, may have been conducted at the Chemical Identification Area No. 182 include:
    - Decontamination of mustard-contaminated vehicles,
    - Neutralization of chemical land mines, possibly containing mustard filling,
    - Field simulation of a CWM battlefield, in which troops traverse an area, contaminated with a mustard mixture, applying their training skills.
    - Gas mask training using tear gas in gas chambers.

MEC Evaluation

Types of MEC

- The limited quantities of explosive MEC, e.g., blasting caps or detonating cord that may have been used at these locations do not pose a significant risk, as indicated in Table 2 of the *Final TPP Memorandum*.

- The potential for encountering CWM is low. However, if encountered the health risk is high.

MEC Evaluation/Investigation Needed

- No visual reconnaissance or magnetometer sweeps were conducted to assess the presence of MEC at the Chemical Identification Area No. 182.

MC Evaluation

Types of MC

- The small quantity of explosive material that may have been used in this area does not pose a significant risk of environmental contamination, as indicated in Table 2 of the *Final TPP Memorandum*.
- Any CWM agents that may have been released in this area would not be expected to have persisted and/or have been released in quantities that would pose a significant risk of environmental contamination.

MC Evaluation/Investigation Needed

- No field investigation was completed for the Chemical Identification Area No. 182.

Data Gaps

MEC

- In general, the presence of MEC at Camp Adair is established by past encounters, which are known to have occurred as recently as 2001.
- MEC has not been found within any small arms range AOCs, except Range Complex No. 4, which overlaps the explosive munitions Mortar Range AOC). There is a low MEC risk associated with the potential for unknown use of explosive MEC at the small arms ranges. Based on past use and the lack of encounters with MEC since closure of Camp Adair, and limited reconnaissance surveys, MEC is absent at the small arms ranges.
- MEC has been found at five of six explosive munitions range AOCs. The sixth AOC, Bombing Target No. 1, overlaps Range Complex No. 2, where MEC has been found. The presence of MEC is considered to be established at all explosive munitions range AOCs.
- MEC has been found at two of three live hand grenade court AOCs. Based on similar histories, the presence of MEC is considered to be established at all three live hand grenade court AOCs.
- MEC has not been found at any practice grenade court AOC. The use of the practice grenade courts was controlled and only munitions containing small amounts of black powder were used. The absence of MEC is considered to be established without the need for reconnaissance.
- MEC in the Chemical Identification Area No. 182 has not been found and the likelihood of finding MEC is considered low, based on controlled used of CWM.

MC

- Except as noted below MC above human health or ecological screening levels were not detected.
- Analytical data demonstrate the presence of lead at Range Complex No. 4 and the Skeet Range No. 580 above ecological screening levels. PAHs were also detected at Skeet Range No. 580.
- There were no exceedances of background concentrations and human health screening values. Molybdenum from Range Complex No. 3, chromium in samples from the Mortar Range, and barium in a sample from Moving Target Range No. 75 exceeded both the soil background value and the ecological screening value. There were no explosive compound detections the explosive munitions ranges.
- There were no exceedances of background concentrations for human health or ecological screening values at the Live Hand Grenade Courts.
- At the practice grenade court AOC MC would be limited to rusting metal from grenade bodies and residue from black powder (potassium nitrate, sulfur, and charcoal).
- At Chemical Identification Area No. 182, release of CWM to the environment would not be expected to persist, except for Mustard agent.
- Existing analytical data collected during the USEPA's SSI is not usable for this SI, due to sample numbering differences between the SSI report text and supporting appendices.

Results of the current status of data requirements with respect to MEC and MC for the AOCs located at the former Camp Adair are summarized below:

AOC	Presence or Absence of MEC	Presence or Absence of MC	Proposed Inspection Activities
Small Arms Ranges			
Infiltration Range No. 143	Absent	Unknown	None – site has been heavily excavated and covered with municipal waste.
Range Complex No. 4	Absent	Lead in soil	
Range Complex No. 5	Absent	Absent	
Range Complex No. 6	Absent	Absent	
Skeet Range No. 580	Absent	Lead and PAHs in soil	
Explosive Munitions Ranges			
Range Complex No. 1	Present	Absent	
Range Complex No. 2	Present	Absent	
Bombing Target No. 1	Present	Absent	
Range Complex No. 3	Present	Molybdenum	
Mortar Range	Present	Chromium	
Moving Target Range No. 75	Present	Barium	
Live Hand Grenade Courts			
East Live Hand Grenade Court	Present	Absent	
West Live Hand Grenade Court	Present	Absent	
Live Hand Grenade Court No. 129	Present	Absent	
Practice Grenade Courts			
Practice Grenade Court No. 120	Absent	Absent	
Practice Grenade Court No. 121	Absent	Absent	
Practice Grenade Court No. 122	Absent	Absent	
Practice Grenade Court No. 125	Absent	Absent	
Practice Grenade Court No. 126	Absent	Absent	
Practice Grenade Court No. 127	Absent	Absent	
Chemical Identification Area			
Chemical Identification Area No. 182	Absent	Absent	

Appendix K
Munitions Response Site Prioritization Protocol Evaluations

Table A

MRS Background Information

DIRECTIONS: Record the background information below for the MRS to be evaluated. Much of this information is available from DoD databases, such as RMIS. If the MRS is located on a FUDS property, the suitable FUDS property information should be substituted. In the MRS summary, briefly describe the UXO, DMM, or MC that are known or suspected to be present, the exposure setting (the MRS's physical environment), any other incidental non-munitions related contaminants found at the MRS (e.g., benzene, trichloroethylene), and any potentially exposed human and ecological receptors. Include a map of the MRS, if one is available.

Munitions Response Site (MRS) Name:	**MRS No. 1, Range Complex No. 1**
Component:	US Army
Installation/Property Name:	**Camp Adair/Adair Air Force Station**
Location (City, County, State):	Polk County, Oregon
UTM Coordinates (NAD83):	N 4956623.96, E 478233.01
Site Name (RMIS ID):	Range Complex No. 1 (F10OR002903R16)
Project Name (Project No.):	Formerly Used Defense Sites, Military Munitions Response Program Site Inspections at Multiple Sites (116188)
Date Information Entered/Updated:	31-May-2007
Point of Contact (Name/Phone):	William Graney/206-764-3494

Project Phase ("X" only one):									
		PA	**X**	**SI**		**RI**		**FS**		**RD**
		RA-C		**RIP**		**RA-O**		**RC**		**LTM**

Media Evaluated ("X" all that apply):				
	X	**Groundwater (human receptor)**	**X**	**Sediment (human receptor)**
	X	**Surface soil (human receptor)**		**Surface water (ecological receptor)**
	X	**Sediment (ecological receptor)**		**Surface water (human receptor)**

MRS Summary

MRS Description: Describe the munitions-related activities that occurred at the installation, the dates of operation, and the UXO, DMM (by type of munition, if known) or munitions constituents (by type, if known) known or suspected to be present):

MRS No. 1 includes Range Complex No. 1. MRS No. 1 was used by Camp Adair between 1942 and 1945. There are two subranges within the Range Complex: Fortified Training Area No. 76 and Bombing Target No. 2. Range Complex had a string of artillery and combat ranges that ringed and overlapped the major impact area in the northern sector of Camp Adair. Live fire combat maneuver and support coordination exercises were conducted and was used for aerial bombing by the Navy and Marines in 1945. Weapons used included small arms, fragmentation grenades, anti-tank guns, 105 mm and 155 mm howitzers, HE bombs upto 500 pound (2007 SI Report, Table 2-1). Potential contaminants include select metals from bomb casings, fuzes and detonators, and explosives (2007 SI Report, Section 5.4.1). The MRS is currently used for agricultural crop growing operations, Christmas tree growing, and residences (2007 SI Report, Section 5.4.1).

Description of Pathways for Human and Ecological Receptors:

The pathways evaluated with respect to MRS No. 1 are: terrestrial and streams/sediments for humans (agricultural workers, and residents) and ecological (ingestion and uptake by wildlife and plants), and groundwater for humans (direct and ingestion by agricultural workers and residents).

Description of Receptors (Human and Ecological):

Receptors in the area of MRS No. 1 include agriclutural workers, residents, plants, and wildlife.

Table 1
EHE Module: Munitions Type Data Element Table

Directions: Below are eleven classifications of munitions and their descriptions. Annotate the score(s) that correspond with **all** munitions types known or suspected to be present at the MRS.

Note: The terms *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Sensitive	All UXO that are considered likely to function upon any interaction with exposed persons [e.g., submunitions, 40mm high-explosive (HE) grenades, white phosphorous (WP) munitions, high-explosive antitank (HEAT) munitions, and practice munitions with sensitive fuzes, but excluding all other practice munitions].	30	30
	All hand grenades containing energetic filler.		
	Bulk primary explosives, or mixtures of these with environmental media, such that the mixture poses an explosive hazard.		
High explosive (used or damaged)	All UXO containing a high-explosive filler (e.g., RDX, Composition B), that are not considered "sensitive."	25	25
	All DMM containing a high-explosive filler that have been damaged by burning or detonation, or deteriorated to the point of instability.		
Pyrotechnic (used or damaged)	All UXO containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades).	20	20
	All DMM containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades) that have been damaged by burning or detonation, or deteriorated to the point of instability.		
High explosive (unused)	All DMM containing a high-explosive filler that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	15	
Propellant	All UXO containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor).	15	15
	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor) that are damaged by burning or detonation, or deteriorated to the point of instability.		
Bulk secondary high explosives, pyrotechnics, or propellant	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor), that are deteriorated.	10	10
	Bulk secondary high explosives, pyrotechnic compositions, or propellant (not contained in a munition), or mixtures of these with environmental media such that the mixture poses an explosive hazard.		
Pyrotechnic (not used or damaged)	All DMM containing a pyrotechnic filler (i.e. red phosphorous), other than white phosphorous filler, that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	10	10
Practice	All UXO that are practice munitions that are not associated with a sensitive fuze.	5	5
	All DMM that are practice munitions that are not associated with a sensitive fuze and that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.		
Riot control	All UXO or DMM containing a riot control agent filler (e.g., tear gas).	3	
Small arms	All used munitions or DMM that are categorized as small arms ammunition [Physical evidence or historical evidence that no other types of munitions (e.g., grenades, subcaliber training rockets, demolition charges) were used or are present on the MRS is required for selection of this category.].	2	2
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
MUNITIONS TYPE	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**30**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Munitions Type*** classifications in the space below.

Munitions used at Range Complex No. 1 are listed on Table 2-1 of the 2007 SI Report. These included munitions with sensitive fuzes and high explosives, and small arms.

Table 2

EHE Module: Source of Hazard Data Element Table

Directions: Below are eleven classifications describing sources of explosive hazards. Annotate the score(s) that correspond with **all** sources of explosive hazards known or suspected to be present at the MRS.

Note: The terms *former range* , *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Former range	The MRS is a former military range where munitions (including practice munitions with sensitive fuzes) have been used. Such areas include: impact or target areas, associated buffer and safety zones, firing points, and live-fire maneuver areas.	10	10
Former munitions treatment (i.e. OB/OD) unit	The MRS is a location where UXO or DMM (e.g., munitions, bulk explosives, bulk pyrotechnic, or bulk propellants) were burned or detonated for the purpose of treatment prior to disposal.	8	
Former practice munitions range	The MRS is a former military range on which only practice munitions without sensitive fuzes were used.	6	
Former maneuver area	The MRS is a former maneuver area where no munitions other than flares, simulators, smokes, and blanks were used. There must be evidence that no other munitions were used at the location to place an MRS into this category.	5	
Former burial pit or other disposal area	The MRS is a location where DMM were buried or disposed of (e.g., disposed of into a water body) without prior thermal treatment.	5	
Former industrial operating facilities	The MRS is a location that is a former munitions maintenance, manufacturing, or demilitarization facility.	4	
Former firing points	The MRS is a firing point, where the firing point is delineated as an MRS separate from the rest of a former military range.	4	
Former missile or air defense artillery emplacements	The MRS is a former missile defense or air defense artillery (ADA) emplacement not associated with a military range.	2	
Former storage or transfer points	The MRS is a location where munitions were stored or handled for transfer between different modes of transportation (e.g., rail to truck, truck to weapon system).	2	
Former small arms range	The MRS is a former military range where only small arms ammunition was used [There must be evidence that no other types of munitions (e.g., grenades) were used or are present to place an MRS iinto this category.].	1	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that no UXO or DMM are present, or there is historical evidence indicating that no UXO or DMM are present.	0	
SOURCE OF HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**10**

DIRECTIONS: Document any MRS-specific data used in selecting the **Source of Hazard** classifications in the space below.

MRS No. 1 includes Range Complex No. 1, which had a string of artillery and combat ranges that ringed and overlapped the major impact area in the northern sector of Camp Adair (2007 SI Report, Sections 4.2.2 and 5.4.1). Live fire combat maneuver and support coordination exercises were conducted. Weapons used included small arms, fragmentation grenades, anti-tank guns, 105 mm and 155 mm howitzers, and bombs up to 500 lb. The 2007 SI Report, Table 2-1 lists potential munitions for this MRS.

Table 3
EHE Module: Location of Munitions Data Element Table

Directions: Below are eight classifications of munitions locations and their descriptions. Annotate the score(s) that correspond with **all** locations where munitions are located or suspected of being found at the MRS.

Note: The terms *surface* , *subsurface* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Confirmed surface	Physical evidence indicates that there are UXO or DMM on the surface of the MRS. Historical evidence (e.g., a confirmed incident report or accident report) indicates there are UXO or DMM on the surface of the MRS.	25	25
Confirmed subsurface, active	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM.	20	
Confirmed subsurface, stable	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed.	15	
Suspected (physical evidence)	There is physical evidence (e.g., munitions debris, such fragments, penetrators, projectiles, shell casings, links, fins), other than the documented presence of UXO or DMM, indicating that UXO or DMM may be present at the MRS.	10	
Suspected (historical evidence)	There is historical evidence indicating that UXO or DMM may be present at the MRS.	5	5
Subsurface, physical constraint	There is physical or historical evidence indicating that UXO or DMM may be present in the subsurface, but there is a physical constraint (e.g., pavement, water depth over 120 feet) preventing direct access to the UXO or DMM.	2	
Small arms (regardless of location)	The presence of small arms ammunition is confirmed or suspected, regardless of other factors such as geological stability [There must be evidence that no other types of munitions (e.g., grenades) were used or are present at the MRS to place an MRS into this category.]	1	1
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
LOCATION OF MUNITIONS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 25).		**25**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Location of Munitions*** classifications in the space below.

The ASR Site Inspection team inspected the Range Complex No. 1. They did not report finding any MEC or munitions debris at Range Complex No. 1 (ASR, 2001). Interviews with landowners indicated that they had found duds in the past at the range. MEC reports are shown on Figure 2-6 and listed on Table 2-3 of the 2007 SI Report. The 2006 SI field team did not observe any ordnance or explosives during site sampling activities (2007 SI Report Section 4.1.2). SI Table 2-3 lists MEC reported.

Table 4
EHE Module: Ease of Access Data Element Table

Directions: Below are four classifications of barrier types that can surround an MRS and their descriptions. The barrier type is directly related to the ease of public access to any explosive materiel. Annotate the score that corresponds with the ease of access to the MRS.

Note: The term *barrier* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
No barrier	There is no barrier preventing access to any part of the MRS (i.e. all parts of the MRS are accessible).	10	10
Barrier to MRS access is incomplete	There is a barrier preventing access to parts of the MRS, but not the entire MRS.	8	
Barrier to MRS access is complete but not monitored	There is a barrier preventing access to all parts of the MRS, but there is no surveillance (e.g., by a guard) to ensure that the barrier is effectively preventing access to all parts of the MRS.	5	
Barrier to MRS access is complete and monitored	There is a barrier preventing access to all parts of the MRS, and there is active, continual surveillance (e.g., by a guard, video monitoring) to ensure that the barrier is effectively preventing access to all parts of the MRS.	0	
EASE OF ACCESS	**DIRECTIONS:** Record **<u>the single highest score</u>** from above in the box to the right (maximum score = 10).		**10**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ease of Access*** classification in the space below.

As of August 2006, there is no fencing or signage restricting or limiting access to the area by the general public (2007 SI Report, Section 4.2.2).

Table 5
EHE Module: Status of Property Data Element Table

Directions: Below are three classifications of the status of a property within the Department of Defense (DoD) and their descriptions. Annotate the score that corresponds with the status of property at the MRS.

Note: N/A

Classification	Description	Possible Score	Score
Non-DoD control	The MRS is at a location that is no longer owned by, leased to, or otherwise possessed or used by DoD. Examples are privately owned land or water bodies; land or water bodies owned or controlled by state, tribal, or local governments; and land or water bodies managed by other federal agencies.	5	5
Scheduled for transfer from DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD, and DoD plans to transfer that land or water body to the control of another entity (e.g., a state, tribal, or local government; a private party; another federal agency) within 3 years from the date the rule is applied.	3	
DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD. With respect to property that is leased or otherwise possessed, DoD must control access to the MRS 24 hours per day, every day of the calendar year.	0	
STATUS OF PROPERTY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Status of Property*** classification in the space below.

Camp Adair was acquired by the Army beginning in 1941. In 1946, the War Department declared Camp Adair surplus and was assigned to the War Assets Administration for disposition under the Surplus Property Act. In 1946, the property was transferred to the Department of Agriculture for sale by the Federal Land Bank. The property is currently privately owned (2007 SI Report, Section 4.2.2).

Table 6
EHE Module: Population Density Data Element Table

Directions: Below are three classifications of population density and their descriptions. Determine the population density per square mile in the vicinity of the MRS and annotate the score that corresponds with the associated population density.

Note: If an MRS is located in more than one county, use the largest population density value among the counties. If the MRS is within or borders a city or town, use the population density for the city or town, rather than that of the county.

Classification	Description	Possible Score	Score
> 500 persons per square mile	There are more than 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	5	
100 - 500 persons per square mile	There are 100 to 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	3	
< 100 persons per square mile	There are fewer than 100 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	1	1
POPULATION DENSITY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**1**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Density*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365 with a population density of 76.2 persons per square mile (2007 SI Report, Section 2.4.3).

Table 7
EHE Module: Population Near Hazard Data Element Table

Directions: Below are six classifications describing the number of inhabited structures near the MRS. The number of inhabited buildings relates to the population near the hazard. Determine the number of inhabited structures within two miles of the MRS boundary and annotate the score that corresponds with the associated population near the known or suspected hazard.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
26 or more inhabited structures	There are 26 or more inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	5	5
16 to 25 inhabited structures	There are 16 to 25 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	4	
11 to 15 inhabited structures	There are 11 to 15 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	3	
6 to 10 inhabited structures	There are 6 to 10 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	2	
1 to 5 inhabited structures	There are 1 to 5 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	1	
0 inhabited structures	There are no inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	0	
POPULATION NEAR HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Near Hazard*** classification in the space below.

From the 2004 Census data, there are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 8

EHE Module: Types of Activities/Structures Data Element Table

Directions: Below are five classifications of activities and/or inhabited structures near the hazard and their descriptions. Review the types of activities that occur and/or structures that are present within two miles of the MRS and annotate the score(s) that correspond with **all** the activities/structure classifications at the MRS.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Residential, educational, commercial, or subsistence	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with any of the following purposes: residential, educational, child care, critical assets (e.g., hospitals, fire and rescue, police stations, dams), hotels, commercial, shopping centers, playgrounds, community gathering areas, religious sites, or sites used for subsistence hunting, fishing, and gathering.	5	5
Parks and recreational areas	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with parks, nature preserves, or other recreational uses.	4	4
Agricultural, forestry	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with agriculture or forestry.	3	3
Industrial or warehousing	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with industrial activities or warehousing.	2	
No known or recurring activities	There are no known or recurring activities occurring up to two miles from the MRS's boundary or within the MRS's boundary.	1	
TYPES OF ACTIVITIES/STRUCTURES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Types of Activities/Structures*** classifications in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 9

EHE Module: Ecological and/or Cultural Resources Data Element Table

Directions: Below are four classifications of ecological and/or cultural resources and their descriptions. Review the types of resources present and annotate the score that corresponds with the ecological and/or cultural resource classifications at the MRS.

Note: The terms *ecological resources* and *cultural resources* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Ecological and cultural resources present	There are both ecological and cultural resources present on the MRS.	5	
Ecological resources present	There are ecological resources present on the MRS.	3	3
Cultural resources present	There are cultural resources present on the MRS.	3	
No ecological or cultural resources present	There are no ecological resources or cultural resources present on the MRS.	0	
ECOLOGICAL AND/OR CULTURAL RESOURCES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**3**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ecological and/or Cultural Resources*** classification in the space below.

The State Historic Preservation Office (SHPO), U.S. Forest Service (USFS), and the Oregon Department of Fish and Wildlife (ODFW) were contacted regarding cultural and natural resources. The SHPO indicated that no potential cultural/archaeological resources were within the currently identified MRS No. 1. The ODFW, Oregon Department of Agriculture, and the U.S. Fish and Wildlife Service were contacted regarding identification of any potentially impacted, threatened, or endangered species at Camp Adair. Two plant species are known to grow in the Camp Adair area. However, the agencies were not concerned with the proposed site activities because of the fact they were minimally invasive (2007 SI Report, Sections 2.4.7, 3.2.1 and 3.2.2).

Table 10

Determining the EHE Module Rating

DIRECTIONS:

1. From Tables 01 - 09, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **EHE Module Total** box below.

4. Identify the appropriate range for the **EHE Module Total** at right.

5. Identify the **EHE Module Rating** that corresponds to the range selected and record this rating in the **EHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

	Source	Score	Value
Explosive Hazard Factor Data Elements			
Munitions Type	Table 01	30	40
Source of Hazard	Table 02	10	
Accessibility Factor Data Elements			
Location of Munitions	Table 03	25	40
Ease of Access	Table 04	10	
Status of Property	Table 05	5	
Receptor Factor Data Elements			
Population Density	Table 06	1	14
Population Near Hazard	Table 07	5	
Types of Activities/Structures	Table 08	5	
Ecological and/or Cultural Resources	Table 09	3	
EHE MODULE TOTAL			**94**

EHE Module Total	EHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected Explosive Hazard
EHE MODULE RATING	**A**

Table 11

CHE Module: CWM Configuration Data Element Table

Directions: Below are seven classifications of CWM configuration and their descriptions. Annotate the score(s) that correspond to **all** CWM configurations known or suspected to be present at the MRS.

Note: The terms *CWM/UXO*, *CWM/DMM*, *physical evidence*, and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
CWM, explosive configuration either UXO or damaged DMM	The CWM known or suspected of being present at the MRS is (a) explosively configured CWM that are UXO (i.e. CWM/UXO), or (b) explosively configured CWM that are DMM (i.e. CWM/DMM) that have been damaged.	30	
CWM mixed with UXO	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged, or nonexplosively configured CWM/DMM, or CWM not configured as a munition, that are commingled with conventional munitions that are UXO.	25	
CWM, explosive configuration that are undamaged DMM	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged.	20	
CWM, not explosively configured or CWM, bulk container	The CWM known or suspected of being present at the MRS is (a) nonexplosively configured CWM/DMM, or (b) bulk CWM/DMM (e.g., ton container).	15	
CAIS K941 and CAIS K942	The CWM/DMM known or suspected of being present at the MRS is CAIS K941(toxic gas set M-1) or CAIS K942 (toxic gas set M-2/E11).	12	
CAIS (chemical agent identification sets)	Only CAIS, other than CAIS K941 and K942, are known or suspected of being present at the MRS.	10	
Evidence of no CWM	Following investigation, the physical evidence indicates that CWM are not present at the MRS, or the historical evidence indicates that CWM are not present at the MRS.	0	0
CWM CONFIGURATION	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**0**

DIRECTIONS: Document any MRS-specific data used in selecting the ***CWM Configuration*** classifications in the space below.

There are no records of CWM munitions being used or found at MRS No. 1.

Table 20

Determining the CHE Module Rating

DIRECTIONS:

1. From Tables 11 - 19, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **CHE Module Total** box below.

	Source	Score	Value
CWM Hazard Factor Data Elements			
CWM Configuration	Table 11	0	0
Sources of CWM	Table 12	0	
Accessibility Factor Data Elements			
Location of CWM	Table 13	0	0
Ease of Access	Table 14	0	
Status of Property	Table 15	0	
Receptor Factor Data Elements			
Population Density	Table 16	0	0
Population Near Hazard	Table 17	0	
Types of Activities/Structures	Table 18	0	
Ecological and/or Cultural Resources	Table 19	0	
		CHE MODULE TOTAL	**0**

4. Identify the appropriate range for the **CHE Module Total** at right.

5. Identify the **CHE Module Rating** that corresponds to the range selected and record this rating in the **CHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

CHE Module Total	CHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected CWM Hazard
CHE MODULE RATING	**No Known or Suspected CWM Hazard**

Table 21

HHE Module: Groundwater Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's groundwater and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the groundwater, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
35572-78-2 (2-Amino-4,6-dinitrotoluene) - no comparison value	0.07		
19406-51-0 (4-Amino-2,6-dinitrotoluene) - no comparison value	0.08		
99-65-0 (1,3-Dinitrobenzene)	0.04	3.70	0
118-96-7 (2,4,6-Trinitrotoluene)	0.08	220.00	0
121-14-2 (2,4-Dinitrotoluene)	0.03	73.00	0
		Total from Table 27	0
		Sum the Ratios	0

CHF Scale	CHF Value
CHF > 100	**H (High)**
100 > CHF >2	**M (Medium)**
2 > CHF	**L (Low)**

CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	**L**

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the groundwater migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the groundwater is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in groundwater has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the groundwater to a potential point of exposure (possibly due to geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	**M**

Receptor Factor

Directions: Annotate the value that corresponds most closely to the groundwater receptors at the MRS.

Classification	Description	Value
Identified	There is a threatened water supply well downgradient of the source and the groundwater is a current source of drinking water or source of water for other beneficial uses such as irrigation/agriculture (equivalent to Class I or IIA aquifer).	H
Potential	There is no threatened water supply well downgradient of the source and the groundwater is currently or potentially usable for drinking water, irrigation, or agriculture (equivalent to Class I, IIA, or IIB aquifer).	M
Limited	There is no potentially threatened water supply well downgradient of the source and the groundwater is not considered a potential source of drinking water and is of limited beneficial use (equivalent to Class IIIA or IIIB aquifer, or where perched aquifer exists only).	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	**H**

Place an "X" in the box to the right if there is no known or suspected Groundwater MC Hazard ☐

Table 22

HHE Module: Surface Water - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface water, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Human Endpoint) MC Hazard	**X**

Table 23

HHE Module: Sediment - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the site's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for human endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		
CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).		

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	
Place an "X" in the box to the right if there is no known or suspected Sediment (Human Endpoint) MC Hazard		**X**

Table 24

HHE Module: Surface Water - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the surface water, select the box at the bottom of the table.

Note: Use either dissolved or total metals analyses.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Ecological Endpoint) MC Hazard	**X**

Table 25

HHE Module: Sediment - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Sediment (Ecological Endpoint) MC Hazard	**X**

Table 26

HHE Module: Surface Soil - Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface soil and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface soil, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
7439-97-6 (Mercury)	0.09	23.00	0
		Total from Table 27	
		Sum the Ratios	0

CHF Scale	CHF Value
CHF > 100	H (High)
100 > CHF >2	M (Medium)
2 > CHF	L (Low)

CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	**L**

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface soil migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface soil is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface soil has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface soil to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	**M**

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface soil receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface soil to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface soil to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface soil to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	**H**

Place an "X" in the box to the right if there is no known or suspected Surface Soil MC Hazard	

Table 27

HHE Module: Supplemental Contaminant Hazard Factor Table

Contaminant Hazard Factor (CHF)

Directions: **Only use this table if there are more than five contaminants present at the MRS.** This is a supplemental table designed to hold information about contaminants that do not fit in the previous tables. Indicate the **media** in which these contaminants are present. Then record all **contaminants**, their **maximum concentrations** and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Calculate and record the **ratio** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** for each medium on the appropriate media-specific tables.

Note: For human exposures to groundwater and surface water, use dissolved, rather than total, metals analyses when both are available. Remember not to add ratios from different media.

Media	Contaminant [CAS No.]	Maximum Concentration	Units	Comparison Value	Units	Ratios
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
					SUBTOTAL FOR SURFACE SOIL	0
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
					SUBTOTAL FOR SEDIMENT	0
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
					SUBTOTAL FOR SURFACE WATER	0
Groundwater	2691-41-0 (HMX)	0.14	µg/L	1,800.00	µg/L	0
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
					SUBTOTAL FOR GROUNDWATER	0

Table 28

Determining the HHE Module Rating

DIRECTIONS:

1. Record the letter values (H, M, L) for the **Contaminant Hazard**, **Migration Pathway**, and **Receptor Factors** for the media (from Tables 21 - 26) in the corresponding boxes below.
2. Record the media's three-letter combinations in the **Three-Letter-Combination** boxes below (three-letter combinations are arranged from Hs to Ms to Ls).
3. Using the reference provided below, determine each medium's rating (A - G) and record the letter in the corresponding **Media Rating** box below.

Medium (Source)	Contaminant Hazard Factor Value	Migratory Pathway Factor Value	Receptor Factor Value	Three-Letter Combination (Hs-Ms-Ls)	Media Rating (A - G)
Table 21 - Groundwater	L	M	H	HML	D
Table 22 - Surface Water (Human Endpoint)					
Table 23 - Sediment (Human Endpoint)					
Table 24 - Surface Water (Ecological Endpoint)					
Table 25 - Sediment (Ecological Endpoint)					
Table 26 - Surface Soil	L	M	H	HML	D
			HHE MODULE RATING		**D**

DIRECTIONS (Continued):

4. Select the single highest **Media Rating** (A is the highest; G is the lowest) and enter the letter in the **HHE Module Rating** box below.

HHE Ratings (for reference only)	
HHH	A
HHM	B
HHL	C
HMM	
HML	D
MMM	
HLL	E
MML	
MLL	F
LLL	G

NOTE: An alternative module rating may be assigned when a module letter rating is used when more information is needed to score one or more media, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

Alternative Module Ratings	
	Evaluation Pending
	No Longer Required
	No Known or Suspected MC Hazard

Table 29

MRS Priority

DIRECTIONS: In the chart below, enter the letter **rating** for each module recorded in Table 10 (EHE), Table 20 (CHE), and Table 28 (HHE). Enter the corresponding numerical **priority** for each module. If information to determine the module rating is not available, choose the appropriate alternative module rating. The MRS priority is the single highest priority; record this number in the **MRS or Alternative Priority** box at the bottom of the table.

NOTE: An MRS assigned Priority 1 has the highest relative priority; an MRS assigned Priority 8 has the lowest relative priority. Only an MRS with CWM known or suspected to be present can be assigned Priority 1; an MRS that has CWM known or suspected to be present cannot be assigned Priority 8.

EHE Rating	Priority	CHE Rating	Priority	HHE Rating	Priority
		A	1		
A	2	B	2	A	2
B	3	C	3	B	3
C	4	D	4	C	4
D	5	E	5	D	5
E	6	F	6	E	6
F	7	G	7	F	7
G	8			G	8
Evaluation Pending		Evaluation Pending		Evaluation Pending	
No Longer Required		No Longer Required		No Longer Required	
No Known or Suspected Explosive Hazard		No Known or Suspected CWM Hazard		No Known or Suspected MC Hazard	

Reference Table 10:		Reference Table 20:		Reference Table 28:	
EHE Module Rating	Priority	CHE Module Rating	Priority	HHE Module Rating	Priority
A	2	No Known or Suspected CWM Hazard	No Known or Suspected CWM Hazard	D	5

MRS or Alternative Priority	2

Table A

MRS Background Information

DIRECTIONS: Record the background information below for the MRS to be evaluated. Much of this information is available from DoD databases, such as RMIS. If the MRS is located on a FUDS property, the suitable FUDS property information should be substituted. In the MRS summary, briefly describe the UXO, DMM, or MC that are known or suspected to be present, the exposure setting (the MRS's physical environment), any other incidental non-munitions related contaminants found at the MRS (e.g., benzene, trichloroethylene), and any potentially exposed human and ecological receptors. Include a map of the MRS, if one is available.

Munitions Response Site (MRS) Name:	**MRS No. 2, Range Complex No. 2**
Component:	US Army
Installation/Property Name:	**Camp Adair/Adair Air Force Station**
Location (City, County, State):	Polk County, Oregon
UTM Coordinates (NAD83):	N 4959733.31, E 476744.90
Site Name (RMIS ID):	Range Complex No. 2 (F10OR002903R17)
Project Name (Project No.):	Formerly Used Defense Sites, Military Munitions Response Program Site Inspections at Multiple Sites (116188)
Date Information Entered/Updated:	31-May-2007
Point of Contact (Name/Phone):	William Graney/206-764-3494

Project Phase ("X" only one):									
		PA	**X**	**SI**		**RI**		**FS**		**RD**
		RA-C		**RIP**		**RA-O**		**RC**		**LTM**

Media Evaluated ("X" all that apply):				
	X	**Groundwater (human receptor)**	**X**	**Sediment (human receptor)**
	X	**Surface soil (human receptor)**		**Surface water (ecological receptor)**
	X	**Sediment (ecological receptor)**		**Surface water (human receptor)**

MRS Summary

MRS Description: Describe the munitions-related activities that occurred at the installation, the dates of operation, and the UXO, DMM (by type of munition, if known) or munitions constituents (by type, if known) known or suspected to be present):

MRS No. 2 includes Range Complex No. 2. This ranges consists of 16 subranges. The range consisted of a string of artillery and combat ranges that ringed and overlapped the major impact area in the northern sector of Camp Adair. Live fire combat maneuver and support coordination exercises were conducted. Munitions used included: small arms, 105-mm HE M1, 105-mm HEAT-T M622, 155-mm HE 107, 37-mm HE M54, 57-mm APC-T M86, 60-mm HE M49, 81-mm HE M43, 60-mm illuminating M721, 60-mm practice, M50A2, 81-mm TP M43A1, explosives - commercial dynamite, blasting caps electrical and nonelectrical (2007 SI Report, Table 2-1). Potential contaminants include select metals from bomb casings, fuzes and detonators, and explosives (2007 SI Report, Section 5.4.1). The MRS is currently used for agricultural crop growing operations, Christmas tree growing, and residences (2007 SI Report, Section 5.4.1).

Description of Pathways for Human and Ecological Receptors:

The pathways evaluated with respect to MRS No. 2 are: terrestrial and streams/sediments for humans (agricultural workers and residents) and ecological (ingestion and uptake by wildlife and plants), and groundwater for humans (direct and ingestion by agricultural workers and residents).

Description of Receptors (Human and Ecological):

Receptors in the area of MRS No. 2 include agricultural workers, residents, plants, and wildlife.

Table 1
EHE Module: Munitions Type Data Element Table

Directions: Below are eleven classifications of munitions and their descriptions. Annotate the score(s) that correspond with **all** munitions types known or suspected to be present at the MRS.

Note: The terms *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Sensitive	All UXO that are considered likely to function upon any interaction with exposed persons [e.g., submunitions, 40mm high-explosive (HE) grenades, white phosphorous (WP) munitions, high-explosive antitank (HEAT) munitions, and practice munitions with sensitive fuzes, but excluding all other practice munitions].	30	30
	All hand grenades containing energetic filler.		
	Bulk primary explosives, or mixtures of these with environmental media, such that the mixture poses an explosive hazard.		
High explosive (used or damaged)	All UXO containing a high-explosive filler (e.g., RDX, Composition B), that are not considered "sensitive."	25	25
	All DMM containing a high-explosive filler that have been damaged by burning or detonation, or deteriorated to the point of instability.		
Pyrotechnic (used or damaged)	All UXO containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades).	20	
	All DMM containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades) that have been damaged by burning or detonation, or deteriorated to the point of instability.		
High explosive (unused)	All DMM containing a high-explosive filler that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	15	
Propellant	All UXO containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor).	15	15
	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor) that are damaged by burning or detonation, or deteriorated to the point of instability.		
Bulk secondary high explosives, pyrotechnics, or propellant	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor), that are deteriorated.	10	
	Bulk secondary high explosives, pyrotechnic compositions, or propellant (not contained in a munition), or mixtures of these with environmental media such that the mixture poses an explosive hazard.		
Pyrotechnic (not used or damaged)	All DMM containing a pyrotechnic filler (i.e. red phosphorous), other than white phosphorous filler, that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	10	
Practice	All UXO that are practice munitions that are not associated with a sensitive fuze.	5	5
	All DMM that are practice munitions that are not associated with a sensitive fuze and that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.		
Riot control	All UXO or DMM containing a riot control agent filler (e.g., tear gas).	3	
Small arms	All used munitions or DMM that are categorized as small arms ammunition [Physical evidence or historical evidence that no other types of munitions (e.g., grenades, subcaliber training rockets, demolition charges) were used or are present on the MRS is required for selection of this category.].	2	2
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
MUNITIONS TYPE	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**30**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Munitions Type*** classifications in the space below.

Munitions used at MRS No. 2 included: small arms, 105-mm HE M1, 105-mm HEAT-T M622, 155-mm HE 107, 37-mm HE M54, 57-mm APC-T M86, 60-mm HE M49, 81-mm HE M43, 60-mm illuminating M721, 60-mm practice, M50A2, 81-mm TP M43A1, explosives - commercial dynamite, blasting caps electrical and nonelectrical (2007 SI Report, Table 2-1).

Table 2

EHE Module: Source of Hazard Data Element Table

Directions: Below are eleven classifications describing sources of explosive hazards. Annotate the score(s) that correspond with **all** sources of explosive hazards known or suspected to be present at the MRS.

Note: The terms *former range* , *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Former range	The MRS is a former military range where munitions (including practice munitions with sensitive fuzes) have been used. Such areas include: impact or target areas, associated buffer and safety zones, firing points, and live-fire maneuver areas.	10	10
Former munitions treatment (i.e. OB/OD) unit	The MRS is a location where UXO or DMM (e.g., munitions, bulk explosives, bulk pyrotechnic, or bulk propellants) were burned or detonated for the purpose of treatment prior to disposal.	8	
Former practice munitions range	The MRS is a former military range on which only practice munitions without sensitive fuzes were used.	6	
Former maneuver area	The MRS is a former maneuver area where no munitions other than flares, simulators, smokes, and blanks were used. There must be evidence that no other munitions were used at the location to place an MRS into this category.	5	
Former burial pit or other disposal area	The MRS is a location where DMM were buried or disposed of (e.g., disposed of into a water body) without prior thermal treatment.	5	
Former industrial operating facilities	The MRS is a location that is a former munitions maintenance, manufacturing, or demilitarization facility.	4	
Former firing points	The MRS is a firing point, where the firing point is delineated as an MRS separate from the rest of a former military range.	4	
Former missile or air defense artillery emplacements	The MRS is a former missile defense or air defense artillery (ADA) emplacement not associated with a military range.	2	
Former storage or transfer points	The MRS is a location where munitions were stored or handled for transfer between different modes of transportation (e.g., rail to truck, truck to weapon system).	2	
Former small arms range	The MRS is a former military range where only small arms ammunition was used [There must be evidence that no other types of munitions (e.g., grenades) were used or are present to place an MRS iinto this category.].	1	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that no UXO or DMM are present, or there is historical evidence indicating that no UXO or DMM are present.	0	
SOURCE OF HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**10**

DIRECTIONS: Document any MRS-specific data used in selecting the **Source of Hazard** classifications in the space below.

MRS No. 2 includes Range Complex No. 2, which had a string of artillery and combat ranges that ringed and overlapped the major impact area in the northern sector of Camp Adair (2007 SI Report, Sections 4.2.2 and 5.4.1). Live fire combat maneuver and support coordination exercises were conducted. The northwestern portion of MRS No. 2 is overlapped by MRS No. 3 - Bombing Target No. 1. Weapons used included small arms, fragmentation grenades, anti-tank guns, 105 mm and 155 mm howitzers. The 2007 SI Report, SI Table 2-1, lists potential munitions for this MRS.

Table 3
EHE Module: Location of Munitions Data Element Table

Directions: Below are eight classifications of munitions locations and their descriptions. Annotate the score(s) that correspond with **all** locations where munitions are located or suspected of being found at the MRS.

Note: The terms *surface* , *subsurface* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Confirmed surface	Physical evidence indicates that there are UXO or DMM on the surface of the MRS. Historical evidence (e.g., a confirmed incident report or accident report) indicates there are UXO or DMM on the surface of the MRS.	25	25
Confirmed subsurface, active	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM.	20	
Confirmed subsurface, stable	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed.	15	
Suspected (physical evidence)	There is physical evidence (e.g., munitions debris, such fragments, penetrators, projectiles, shell casings, links, fins), other than the documented presence of UXO or DMM, indicating that UXO or DMM may be present at the MRS.	10	
Suspected (historical evidence)	There is historical evidence indicating that UXO or DMM may be present at the MRS.	5	5
Subsurface, physical constraint	There is physical or historical evidence indicating that UXO or DMM may be present in the subsurface, but there is a physical constraint (e.g., pavement, water depth over 120 feet) preventing direct access to the UXO or DMM.	2	
Small arms (regardless of location)	The presence of small arms ammunition is confirmed or suspected, regardless of other factors such as geological stability [There must be evidence that no other types of munitions (e.g., grenades) were used or are present at the MRS to place an MRS into this category.]	1	1
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
LOCATION OF MUNITIONS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 25).		**25**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Location of Munitions*** classifications in the space below.

The ASR Site Inspection team inspected the Range Complex No. 2. The team reported finding a dud 60mm round hanging on a fence and 6 burnt 81mm rounds during the visit to Range Complex No. 2. Interviews with landowners indicated that they had found duds in the past at all ranges (2007 SI Report, Section 4.2.2). The MRS contains two impact areas that were identified during the 1947 UXO Clearance activities that likely contained a high concentration of duds that were removed and recommended that use of these areas by restricted to grazing or timbering activities (2007 SI Report, Section 4.2.2). The 2006 SI field team did not observe any ordnance or explosives during site sampling activities (2007 SI Report, Section 4.1.2). 2007 SI Report, Table 2-3, lists historical MEC reports.

Table 4
EHE Module: Ease of Access Data Element Table

Directions: Below are four classifications of barrier types that can surround an MRS and their descriptions. The barrier type is directly related to the ease of public access to any explosive materiel. Annotate the score that corresponds with the ease of access to the MRS.

Note: The term *barrier* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
No barrier	There is no barrier preventing access to any part of the MRS (i.e. all parts of the MRS are accessible).	10	10
Barrier to MRS access is incomplete	There is a barrier preventing access to parts of the MRS, but not the entire MRS.	8	
Barrier to MRS access is complete but not monitored	There is a barrier preventing access to all parts of the MRS, but there is no surveillance (e.g., by a guard) to ensure that the barrier is effectively preventing access to all parts of the MRS.	5	
Barrier to MRS access is complete and monitored	There is a barrier preventing access to all parts of the MRS, and there is active, continual surveillance (e.g., by a guard, video monitoring) to ensure that the barrier is effectively preventing access to all parts of the MRS.	0	
EASE OF ACCESS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**10**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ease of Access*** classification in the space below.

As of August 2006, there is no fencing or signage restricting or limiting access to the area by the general public (2007 SI Report, Section 4.2.2).

Table 5
EHE Module: Status of Property Data Element Table

Directions: Below are three classifications of the status of a property within the Department of Defense (DoD) and their descriptions. Annotate the score that corresponds with the status of property at the MRS.

Note: N/A

Classification	Description	Possible Score	Score
Non-DoD control	The MRS is at a location that is no longer owned by, leased to, or otherwise possessed or used by DoD. Examples are privately owned land or water bodies; land or water bodies owned or controlled by state, tribal, or local governments; and land or water bodies managed by other federal agencies.	5	5
Scheduled for transfer from DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD, and DoD plans to transfer that land or water body to the control of another entity (e.g., a state, tribal, or local government; a private party; another federal agency) within 3 years from the date the rule is applied.	3	
DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD. With respect to property that is leased or otherwise possessed, DoD must control access to the MRS 24 hours per day, every day of the calendar year.	0	
STATUS OF PROPERTY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Status of Property*** classification in the space below.

Camp Adair was acquired by the Army beginning in 1941. In 1946, the War Department declared Camp Adair surplus and was assigned to the War Assets Administration for disposition under the Surplus Property Act. In 1946, the property was transferred to the Department of Agriculture for sale by the Federal Land Bank. The property is currently privately owned (2007 SI Report, Section 4.2.2).

Table 6
EHE Module: Population Density Data Element Table

Directions: Below are three classifications of population density and their descriptions. Determine the population density per square mile in the vicinity of the MRS and annotate the score that corresponds with the associated population density.

Note: If an MRS is located in more than one county, use the largest population density value among the counties. If the MRS is within or borders a city or town, use the population density for the city or town, rather than that of the county.

Classification	Description	Possible Score	Score
> 500 persons per square mile	There are more than 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	5	
100 - 500 persons per square mile	There are 100 to 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	3	
< 100 persons per square mile	There are fewer than 100 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	1	1
POPULATION DENSITY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**1**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Density*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365 with a popultion density of 76.2 persons per square mile (2007 SI Report, Section 2.4.3).

Table 7
EHE Module: Population Near Hazard Data Element Table

Directions: Below are six classifications describing the number of inhabited structures near the MRS. The number of inhabited buildings relates to the population near the hazard. Determine the number of inhabited structures within two miles of the MRS boundary and annotate the score that corresponds with the associated population near the known or suspected hazard.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
26 or more inhabited structures	There are 26 or more inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	5	5
16 to 25 inhabited structures	There are 16 to 25 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	4	
11 to 15 inhabited structures	There are 11 to 15 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	3	
6 to 10 inhabited structures	There are 6 to 10 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	2	
1 to 5 inhabited structures	There are 1 to 5 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	1	
0 inhabited structures	There are no inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	0	
POPULATION NEAR HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Near Hazard*** classification in the space below.

From the 2004 Census data, there are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 8

EHE Module: Types of Activities/Structures Data Element Table

Directions: Below are five classifications of activities and/or inhabited structures near the hazard and their descriptions. Review the types of activities that occur and/or structures that are present within two miles of the MRS and annotate the score(s) that correspond with **all** the activities/structure classifications at the MRS.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Residential, educational, commercial, or subsistence	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with any of the following purposes: residential, educational, child care, critical assets (e.g., hospitals, fire and rescue, police stations, dams), hotels, commercial, shopping centers, playgrounds, community gathering areas, religious sites, or sites used for subsistence hunting, fishing, and gathering.	5	5
Parks and recreational areas	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with parks, nature preserves, or other recreational uses.	4	4
Agricultural, forestry	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with agriculture or forestry.	3	3
Industrial or warehousing	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with industrial activities or warehousing.	2	
No known or recurring activities	There are no known or recurring activities occurring up to two miles from the MRS's boundary or within the MRS's boundary.	1	
TYPES OF ACTIVITIES/STRUCTURES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Types of Activities/Structures*** classifications in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 9

EHE Module: Ecological and/or Cultural Resources Data Element Table

Directions: Below are four classifications of ecological and/or cultural resources and their descriptions. Review the types of resources present and annotate the score that corresponds with the ecological and/or cultural resource classifications at the MRS.

Note: The terms *ecological resources* and *cultural resources* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Ecological and cultural resources present	There are both ecological and cultural resources present on the MRS.	5	
Ecological resources present	There are ecological resources present on the MRS.	3	3
Cultural resources present	There are cultural resources present on the MRS.	3	
No ecological or cultural resources present	There are no ecological resources or cultural resources present on the MRS.	0	
ECOLOGICAL AND/OR CULTURAL RESOURCES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**3**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ecological and/or Cultural Resources*** classification in the space below.

The State Historic Preservation Office (SHPO), U.S. Forest Service (USFS), and the Oregon Department of Fish and Wildlife (ODFW) were contacted regarding cultural and natural resources. The SHPO indicated that no potential cultural/archaeological resources were within the currently identified MRS No. 2. The ODFW, Oregon Department of Agriculture, and the U.S. Fish and Wildlife Service were contacted regarding identification of any potentially impacted, threatened, or endangered species at Camp Adair. Two plant species are known to grow in the Camp Adair area. However, the agencies were not concerned with the proposed site activities because of the fact they were minimally invasive (2007 SI Report, Sections 2.4.7, 3.2.1 and 3.2.2).

Table 10

Determining the EHE Module Rating

DIRECTIONS:

1. From Tables 01 - 09, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **EHE Module Total** box below.

4. Identify the appropriate range for the **EHE Module Total** at right.

5. Identify the **EHE Module Rating** that corresponds to the range selected and record this rating in the **EHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

	Source	Score	Value
Explosive Hazard Factor Data Elements			
Munitions Type	Table 01	30	40
Source of Hazard	Table 02	10	
Accessibility Factor Data Elements			
Location of Munitions	Table 03	25	40
Ease of Access	Table 04	10	
Status of Property	Table 05	5	
Receptor Factor Data Elements			
Population Density	Table 06	1	14
Population Near Hazard	Table 07	5	
Types of Activities/Structures	Table 08	5	
Ecological and/or Cultural Resources	Table 09	3	
EHE MODULE TOTAL			**94**

EHE Module Total	EHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected Explosive Hazard
EHE MODULE RATING	**A**

Table 11

CHE Module: CWM Configuration Data Element Table

Directions: Below are seven classifications of CWM configuration and their descriptions. Annotate the score(s) that correspond to **all** CWM configurations known or suspected to be present at the MRS.

Note: The terms *CWM/UXO*, *CWM/DMM*, *physical evidence*, and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
CWM, explosive configuration either UXO or damaged DMM	The CWM known or suspected of being present at the MRS is (a) explosively configured CWM that are UXO (i.e. CWM/UXO), or (b) explosively configured CWM that are DMM (i.e. CWM/DMM) that have been damaged.	30	
CWM mixed with UXO	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged, or nonexplosively configured CWM/DMM, or CWM not configured as a munition, that are commingled with conventional munitions that are UXO.	25	
CWM, explosive configuration that are undamaged DMM	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged.	20	
CWM, not explosively configured or CWM, bulk container	The CWM known or suspected of being present at the MRS is (a) nonexplosively configured CWM/DMM, or (b) bulk CWM/DMM (e.g., ton container).	15	
CAIS K941 and CAIS K942	The CWM/DMM known or suspected of being present at the MRS is CAIS K941(toxic gas set M-1) or CAIS K942 (toxic gas set M-2/E11).	12	
CAIS (chemical agent identification sets)	Only CAIS, other than CAIS K941 and K942, are known or suspected of being present at the MRS.	10	
Evidence of no CWM	Following investigation, the physical evidence indicates that CWM are not present at the MRS, or the historical evidence indicates that CWM are not present at the MRS.	0	0
CWM CONFIGURATION	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**0**

DIRECTIONS: Document any MRS-specific data used in selecting the ***CWM Configuration*** classifications in the space below.

As there are no records of CWM munitions being used or found at MRS No. 2.

Table 20

Determining the CHE Module Rating

DIRECTIONS:

1. From Tables 11 - 19, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **CHE Module Total** box below.

	Source	Score	Value
CWM Hazard Factor Data Elements			
CWM Configuration	Table 11	0	0
Sources of CWM	Table 12	0	
Accessibility Factor Data Elements			
Location of CWM	Table 13	0	0
Ease of Access	Table 14	0	
Status of Property	Table 15	0	
Receptor Factor Data Elements			
Population Density	Table 16	0	0
Population Near Hazard	Table 17	0	
Types of Activities/Structures	Table 18	0	
Ecological and/or Cultural Resources	Table 19	0	
		CHE MODULE TOTAL	**0**

4. Identify the appropriate range for the **CHE Module Total** at right.

5. Identify the **CHE Module Rating** that corresponds to the range selected and record this rating in the **CHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

CHE Module Total	CHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected CWM Hazard
CHE MODULE RATING	**No Known or Suspected CWM Hazard**

Table 21

HHE Module: Groundwater Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's groundwater and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the groundwater, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
7439-98-7 (Molybdenum)	5.80	180.00	0
		Total from Table 27	
		Sum the Ratios	0

CHF Scale	CHF Value
CHF > 100	**H (High)**
100 > CHF >2	**M (Medium)**
2 > CHF	**L (Low)**

CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	**L**

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the groundwater migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the groundwater is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in groundwater has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the groundwater to a potential point of exposure (possibly due to geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	**M**

Receptor Factor

Directions: Annotate the value that corresponds most closely to the groundwater receptors at the MRS.

Classification	Description	Value
Identified	There is a threatened water supply well downgradient of the source and the groundwater is a current source of drinking water or source of water for other beneficial uses such as irrigation/agriculture (equivalent to Class I or IIA aquifer).	H
Potential	There is no threatened water supply well downgradient of the source and the groundwater is currently or potentially usable for drinking water, irrigation, or agriculture (equivalent to Class I, IIA, or IIB aquifer).	M
Limited	There is no potentially threatened water supply well downgradient of the source and the groundwater is not considered a potential source of drinking water and is of limited beneficial use (equivalent to Class IIIA or IIIB aquifer, or where perched aquifer exists only).	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	**H**
	Place an "X" in the box to the right if there is no known or suspected Groundwater MC Hazard	

Table 22

HHE Module: Surface Water - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface water, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Human Endpoint) MC Hazard	**X**

Table 23

HHE Module: Sediment - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the site's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for human endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		
CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).		

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	
Place an "X" in the box to the right if there is no known or suspected Sediment (Human Endpoint) MC Hazard		**X**

Table 24

HHE Module: Surface Water - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the surface water, select the box at the bottom of the table.

Note: Use either dissolved or total metals analyses.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		
CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).		

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Ecological Endpoint) MC Hazard	**X**

Table 25

HHE Module: Sediment - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Sediment (Ecological Endpoint) MC Hazard	

Table 26

HHE Module: Surface Soil - Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface soil and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface soil, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
7439-97-6 (Mercury)	0.09	23.00	0
		Total from Table 27	
		Sum the Ratios	0

CHF Scale	CHF Value
CHF > 100	H (High)
100 > CHF >2	M (Medium)
2 > CHF	L (Low)

CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	**L**

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface soil migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface soil is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface soil has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface soil to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	**M**

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface soil receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface soil to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface soil to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface soil to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	**H**

Place an "X" in the box to the right if there is no known or suspected Surface Soil MC Hazard	

Table 27

HHE Module: Supplemental Contaminant Hazard Factor Table

Contaminant Hazard Factor (CHF)

Directions: **Only use this table if there are more than five contaminants present at the MRS.** This is a supplemental table designed to hold information about contaminants that do not fit in the previous tables. Indicate the **media** in which these contaminants are present. Then record all **contaminants**, their **maximum concentrations** and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Calculate and record the **ratio** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** for each medium on the appropriate media-specific tables.

Note: For human exposures to groundwater and surface water, use dissolved, rather than total, metals analyses when both are available. Remember not to add ratios from different media.

Media	Contaminant [CAS No.]	Maximum Concentration	Units	Comparison Value	Units	Ratios
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
					SUBTOTAL FOR SURFACE SOIL	**0**
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
					SUBTOTAL FOR SEDIMENT	**0**
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
					SUBTOTAL FOR SURFACE WATER	**0**
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
					SUBTOTAL FOR GROUNDWATER	**0**

Table 28

Determining the HHE Module Rating

DIRECTIONS:

1. Record the letter values (H, M, L) for the **Contaminant Hazard**, **Migration Pathway**, and **Receptor Factors** for the media (from Tables 21 - 26) in the corresponding boxes below.
2. Record the media's three-letter combinations in the **Three-Letter-Combination** boxes below (three-letter combinations are arranged from Hs to Ms to Ls).
3. Using the reference provided below, determine each medium's rating (A - G) and record the letter in the corresponding **Media Rating** box below.

Medium (Source)	Contaminant Hazard Factor Value	Migratory Pathway Factor Value	Receptor Factor Value	Three-Letter Combination (Hs-Ms-Ls)	Media Rating (A - G)
Table 21 - Groundwater	L	M	H	HML	D
Table 22 - Surface Water (Human Endpoint)					
Table 23 - Sediment (Human Endpoint)					
Table 24 - Surface Water (Ecological Endpoint)					
Table 25 - Sediment (Ecological Endpoint)					
Table 26 - Surface Soil	L	M	H	HML	D
			HHE MODULE RATING		**D**

DIRECTIONS (Continued):

4. Select the single highest **Media Rating** (A is the highest; G is the lowest) and enter the letter in the **HHE Module Rating** box below.

HHE Ratings (for reference only)	
HHH	A
HHM	B
HHL	C
HMM	
HML	D
MMM	
HLL	E
MML	
MLL	F
LLL	G

NOTE: An alternative module rating may be assigned when a module letter rating is used when more information is needed to score one or more media, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

Alternative Module Ratings	
	Evaluation Pending
	No Longer Required
	No Known or Suspected MC Hazard

Table 29

MRS Priority

DIRECTIONS: In the chart below, enter the letter **rating** for each module recorded in Table 10 (EHE), Table 20 (CHE), and Table 28 (HHE). Enter the corresponding numerical **priority** for each module. If information to determine the module rating is not available, choose the appropriate alternative module rating. The MRS priority is the single highest priority; record this number in the **MRS or Alternative Priority** box at the bottom of the table.

NOTE: An MRS assigned Priority 1 has the highest relative priority; an MRS assigned Priority 8 has the lowest relative priority. Only an MRS with CWM known or suspected to be present can be assigned Priority 1; an MRS that has CWM known or suspected to be present cannot be assigned Priority 8.

EHE Rating	Priority	CHE Rating	Priority	HHE Rating	Priority
		A	1		
A	2	B	2	A	2
B	3	C	3	B	3
C	4	D	4	C	4
D	5	E	5	D	5
E	6	F	6	E	6
F	7	G	7	F	7
G	8			G	8
Evaluation Pending		Evaluation Pending		Evaluation Pending	
No Longer Required		No Longer Required		No Longer Required	
No Known or Suspected Explosive Hazard		No Known or Suspected CWM Hazard		No Known or Suspected MC Hazard	

Reference Table 10:		Reference Table 20:		Reference Table 28:	
EHE Module Rating	Priority	CHE Module Rating	Priority	HHE Module Rating	Priority
A	2	No Known or Suspected CWM Hazard	No Known or Suspected CWM Hazard	D	5

MRS or Alternative Priority	2

Table A

MRS Background Information

DIRECTIONS: Record the background information below for the MRS to be evaluated. Much of this information is available from DoD databases, such as RMIS. If the MRS is located on a FUDS property, the suitable FUDS property information should be substituted. In the MRS summary, briefly describe the UXO, DMM, or MC that are known or suspected to be present, the exposure setting (the MRS's physical environment), any other incidental non-munitions related contaminants found at the MRS (e.g., benzene, trichloroethylene), and any potentially exposed human and ecological receptors. Include a map of the MRS, if one is available.

Munitions Response Site (MRS) Name:	**MRS No. 3, Bombing Target No. 1**
Component:	US Army
Installation/Property Name:	**Camp Adair/Adair Air Force Station**
Location (City, County, State):	Polk County, Oregon
UTM Coordinates (NAD83):	N 4961316.85, E 479285.73
Site Name (RMIS ID):	Bombing Target No. 1
Project Name (Project No.):	Formerly Used Defense Sites, Military Munitions Response Program Site Inspections at Multiple Sites (116188)
Date Information Entered/Updated:	31-May-2007
Point of Contact (Name/Phone):	William Graney/206-764-3494

Project Phase ("X" only one):										
		PA	**X**	**SI**		**RI**		**FS**		**RD**
		RA-C		**RIP**		**RA-O**		**RC**		**LTM**

Media Evaluated ("X" all that apply):				
	X	**Groundwater (human receptor)**	**X**	**Sediment (human receptor)**
	X	**Surface soil (human receptor)**		**Surface water (ecological receptor)**
	X	**Sediment (ecological receptor)**		**Surface water (human receptor)**

MRS Summary

MRS Description: Describe the munitions-related activities that occurred at the installation, the dates of operation, and the UXO, DMM (by type of munition, if known) or munitions constituents (by type, if known) known or suspected to be present):

MRS No. 3 includes the Bombing Target No. 1. This range was used for target bombing practice between 1942 and 1945. The ASR could not confirm the origins of the target, using units, or type of ordnance dropped (ASR, 2001). It was believed that the target was used by the Navy/Marine Corps (ASR, 2001). ASR Supplement listed possible bombs as AN-M30 Bomb GP, 100-lb Bomb GP, 500-lb Bomb GP, AN-Mk5, AN-Mk 23, AN-Mk 43 practice bombs, M38A2 practice bomb, 105-mm Fixed HE M38, 155 HE Mk1. Bombing Target No. 1 is almost entirely within Range Complex No. 2 (2007 SI Report, Figure 7-1a). Potential contaminants include select metals from bomb casings, fuzes and detonators, and explosives. There were no siginificant MC exceedances of background in groundwater, sediment, or soil and no explosives were detected (2007 SI Report, Sections 5.4.3.1, 5.4.4.1, and 5.4.5.1). The MRS is currently used for agricultural crop growing operations and farm residences.

Description of Pathways for Human and Ecological Receptors:

The pathways evaluated with respect to MRS No. 3 are: terrestrial and streams/sediments for humans (agricultural workers, and residents) and ecological (ingestion and uptake by wildlife and plants), and groundwater for humans (direct and ingestion by agricultural workers and residents).

Description of Receptors (Human and Ecological):

Receptors in the area of MRS No. 3 include agricultural workers, residents, plants, and wildlife.

Table 1
EHE Module: Munitions Type Data Element Table

Directions: Below are eleven classifications of munitions and their descriptions. Annotate the score(s) that correspond with **all** munitions types known or suspected to be present at the MRS.

Note: The terms *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Sensitive	All UXO that are considered likely to function upon any interaction with exposed persons [e.g., submunitions, 40mm high-explosive (HE) grenades, white phosphorous (WP) munitions, high-explosive antitank (HEAT) munitions, and practice munitions with sensitive fuzes, but excluding all other practice munitions].	30	30
	All hand grenades containing energetic filler.		
	Bulk primary explosives, or mixtures of these with environmental media, such that the mixture poses an explosive hazard.		
High explosive (used or damaged)	All UXO containing a high-explosive filler (e.g., RDX, Composition B), that are not considered "sensitive."	25	25
	All DMM containing a high-explosive filler that have been damaged by burning or detonation, or deteriorated to the point of instability.		
Pyrotechnic (used or damaged)	All UXO containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades).	20	
	All DMM containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades) that have been damaged by burning or detonation, or deteriorated to the point of instability.		
High explosive (unused)	All DMM containing a high-explosive filler that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	15	
Propellant	All UXO containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor).	15	
	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor) that are damaged by burning or detonation, or deteriorated to the point of instability.		
Bulk secondary high explosives, pyrotechnics, or propellant	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor), that are deteriorated.	10	
	Bulk secondary high explosives, pyrotechnic compositions, or propellant (not contained in a munition), or mixtures of these with environmental media such that the mixture poses an explosive hazard.		
Pyrotechnic (not used or damaged)	All DMM containing a pyrotechnic filler (i.e. red phosphorous), other than white phosphorous filler, that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	10	
Practice	All UXO that are practice munitions that are not associated with a sensitive fuze.	5	5
	All DMM that are practice munitions that are not associated with a sensitive fuze and that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.		
Riot control	All UXO or DMM containing a riot control agent filler (e.g., tear gas).	3	
Small arms	All used munitions or DMM that are categorized as small arms ammunition [Physical evidence or historical evidence that no other types of munitions (e.g., grenades, subcaliber training rockets, demolition charges) were used or are present on the MRS is required for selection of this category.].	2	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
MUNITIONS TYPE	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**30**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Munitions Type*** classifications in the space below.

The ASR Site Inspection team inspected MRS No. 3 - Bomb Target No. 1. The ASR team could not specifically identify munitions used at the MRS (ASR, 2001). The ASR Supplement (2004) identiifed the following munitions as possibly being used at the target: AN-M30 Bomb GP, 100-lb Bomb GP, 500-lb Bomb GP, AN-Mk5, AN-Mk 23, AN-Mk 43 practice bombs, M38A2 practice bomb, 105-mm Fixed HE M38, 155 HE Mk1. The 2006 SI field team did not observe any MEC or munitions debris (2007 SI Report, Section 4.1.2).

Table 2

EHE Module: Source of Hazard Data Element Table

Directions: Below are eleven classifications describing sources of explosive hazards. Annotate the score(s) that correspond with **all** sources of explosive hazards known or suspected to be present at the MRS.

Note: The terms *former range* , *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Former range	The MRS is a former military range where munitions (including practice munitions with sensitive fuzes) have been used. Such areas include: impact or target areas, associated buffer and safety zones, firing points, and live-fire maneuver areas.	10	10
Former munitions treatment (i.e. OB/OD) unit	The MRS is a location where UXO or DMM (e.g., munitions, bulk explosives, bulk pyrotechnic, or bulk propellants) were burned or detonated for the purpose of treatment prior to disposal.	8	
Former practice munitions range	The MRS is a former military range on which only practice munitions without sensitive fuzes were used.	6	
Former maneuver area	The MRS is a former maneuver area where no munitions other than flares, simulators, smokes, and blanks were used. There must be evidence that no other munitions were used at the location to place an MRS into this category.	5	
Former burial pit or other disposal area	The MRS is a location where DMM were buried or disposed of (e.g., disposed of into a water body) without prior thermal treatment.	5	
Former industrial operating facilities	The MRS is a location that is a former munitions maintenance, manufacturing, or demilitarization facility.	4	
Former firing points	The MRS is a firing point, where the firing point is delineated as an MRS separate from the rest of a former military range.	4	
Former missile or air defense artillery emplacements	The MRS is a former missile defense or air defense artillery (ADA) emplacement not associated with a military range.	2	
Former storage or transfer points	The MRS is a location where munitions were stored or handled for transfer between different modes of transportation (e.g., rail to truck, truck to weapon system).	2	
Former small arms range	The MRS is a former military range where only small arms ammunition was used [There must be evidence that no other types of munitions (e.g., grenades) were used or are present to place an MRS iinto this category.].	1	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that no UXO or DMM are present, or there is historical evidence indicating that no UXO or DMM are present.	0	
SOURCE OF HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**10**

DIRECTIONS: Document any MRS-specific data used in selecting the **Source of Hazard** classifications in the space below.

MRS No. 3 is a former bombing target used between 1942 and 1945 (2007 SI Report, Section 5.4.1). Bombing Target No. 1 overlaps a portion of Range Complex No. 2 and was used for aerial bombing by the Army Air Corps, Navy, and Marines.

Table 3
EHE Module: Location of Munitions Data Element Table

Directions: Below are eight classifications of munitions locations and their descriptions. Annotate the score(s) that correspond with **all** locations where munitions are located or suspected of being found at the MRS.

Note: The terms *surface* , *subsurface* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Confirmed surface	Physical evidence indicates that there are UXO or DMM on the surface of the MRS. Historical evidence (e.g., a confirmed incident report or accident report) indicates there are UXO or DMM on the surface of the MRS.	25	
Confirmed subsurface, active	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM.	20	
Confirmed subsurface, stable	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed.	15	
Suspected (physical evidence)	There is physical evidence (e.g., munitions debris, such fragments, penetrators, projectiles, shell casings, links, fins), other than the documented presence of UXO or DMM, indicating that UXO or DMM may be present at the MRS.	10	
Suspected (historical evidence)	There is historical evidence indicating that UXO or DMM may be present at the MRS.	5	5
Subsurface, physical constraint	There is physical or historical evidence indicating that UXO or DMM may be present in the subsurface, but there is a physical constraint (e.g., pavement, water depth over 120 feet) preventing direct access to the UXO or DMM.	2	
Small arms (regardless of location)	The presence of small arms ammunition is confirmed or suspected, regardless of other factors such as geological stability [There must be evidence that no other types of munitions (e.g., grenades) were used or are present at the MRS to place an MRS into this category.]	1	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
LOCATION OF MUNITIONS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 25).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Location of Munitions*** classifications in the space below.

The ASR Site Inspection team inspected Bomb Target No. 1 vicinity. The team interviewed one of the long-time residents, who indicated that numerous bomb craters had existed but had been filled in to make the land usable. Any discovered bomb debris had been hauled off. The long-time resident was not aware of any incidents related to MEC (ASR, 2001, pg 80 & 81). The ASR team did not report finding any MEC or munitions debris at Bomb Target No. 1 (ASR, 2001). The 2006 SI field team did not observe any ordnance or explosives during site sampling activities (2007 SI Report, Section 4.1.2).

Table 4
EHE Module: Ease of Access Data Element Table

Directions: Below are four classifications of barrier types that can surround an MRS and their descriptions. The barrier type is directly related to the ease of public access to any explosive materiel. Annotate the score that corresponds with the ease of access to the MRS.

Note: The term *barrier* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
No barrier	There is no barrier preventing access to any part of the MRS (i.e. all parts of the MRS are accessible).	10	10
Barrier to MRS access is incomplete	There is a barrier preventing access to parts of the MRS, but not the entire MRS.	8	
Barrier to MRS access is complete but not monitored	There is a barrier preventing access to all parts of the MRS, but there is no surveillance (e.g., by a guard) to ensure that the barrier is effectively preventing access to all parts of the MRS.	5	
Barrier to MRS access is complete and monitored	There is a barrier preventing access to all parts of the MRS, and there is active, continual surveillance (e.g., by a guard, video monitoring) to ensure that the barrier is effectively preventing access to all parts of the MRS.	0	
EASE OF ACCESS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**10**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ease of Access*** classification in the space below.

As of August 2006, there is no fencing or signage restricting or limiting access to the area by the general public (2007 SI Report, Section 4.2.2).

Table 5
EHE Module: Status of Property Data Element Table

Directions: Below are three classifications of the status of a property within the Department of Defense (DoD) and their descriptions. Annotate the score that corresponds with the status of property at the MRS.

Note: N/A

Classification	Description	Possible Score	Score
Non-DoD control	The MRS is at a location that is no longer owned by, leased to, or otherwise possessed or used by DoD. Examples are privately owned land or water bodies; land or water bodies owned or controlled by state, tribal, or local governments; and land or water bodies managed by other federal agencies.	5	5
Scheduled for transfer from DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD, and DoD plans to transfer that land or water body to the control of another entity (e.g., a state, tribal, or local government; a private party; another federal agency) within 3 years from the date the rule is applied.	3	
DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD. With respect to property that is leased or otherwise possessed, DoD must control access to the MRS 24 hours per day, every day of the calendar year.	0	
STATUS OF PROPERTY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Status of Property*** classification in the space below.

Camp Adair was acquired by the Army beginning in 1941. In 1946, the War Department declared Camp Adair surplus and was assigned to the War Assets Administration for disposition under the Surplus Property Act. In 1946, the property was transferred to the Department of Agriculture for sale by the Federal Land Bank. The property is currently privately owned (2007 SI Report, Section 4.2.2).

Table 6
EHE Module: Population Density Data Element Table

Directions: Below are three classifications of population density and their descriptions. Determine the population density per square mile in the vicinity of the MRS and annotate the score that corresponds with the associated population density.

Note: If an MRS is located in more than one county, use the largest population density value among the counties. If the MRS is within or borders a city or town, use the population density for the city or town, rather than that of the county.

Classification	Description	Possible Score	Score
> 500 persons per square mile	There are more than 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	5	
100 - 500 persons per square mile	There are 100 to 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	3	
< 100 persons per square mile	There are fewer than 100 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	1	1
POPULATION DENSITY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**1**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Density*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365 with a population density of 76.2 persons per square mile (2007 SI Report, Section 2.4.3).

Table 7
EHE Module: Population Near Hazard Data Element Table

Directions: Below are six classifications describing the number of inhabited structures near the MRS. The number of inhabited buildings relates to the population near the hazard. Determine the number of inhabited structures within two miles of the MRS boundary and annotate the score that corresponds with the associated population near the known or suspected hazard.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
26 or more inhabited structures	There are 26 or more inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	5	5
16 to 25 inhabited structures	There are 16 to 25 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	4	
11 to 15 inhabited structures	There are 11 to 15 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	3	
6 to 10 inhabited structures	There are 6 to 10 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	2	
1 to 5 inhabited structures	There are 1 to 5 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	1	
0 inhabited structures	There are no inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	0	
POPULATION NEAR HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Near Hazard*** classification in the space below.

The 2004 Census data, there are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 8

EHE Module: Types of Activities/Structures Data Element Table

Directions: Below are five classifications of activities and/or inhabited structures near the hazard and their descriptions. Review the types of activities that occur and/or structures that are present within two miles of the MRS and annotate the score(s) that correspond with **all** the activities/structure classifications at the MRS.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Residential, educational, commercial, or subsistence	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with any of the following purposes: residential, educational, child care, critical assets (e.g., hospitals, fire and rescue, police stations, dams), hotels, commercial, shopping centers, playgrounds, community gathering areas, religious sites, or sites used for subsistence hunting, fishing, and gathering.	5	5
Parks and recreational areas	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with parks, nature preserves, or other recreational uses.	4	4
Agricultural, forestry	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with agriculture or forestry.	3	3
Industrial or warehousing	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with industrial activities or warehousing.	2	
No known or recurring activities	There are no known or recurring activities occurring up to two miles from the MRS's boundary or within the MRS's boundary.	1	
TYPES OF ACTIVITIES/STRUCTURES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Types of Activities/Structures*** classifications in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 9

EHE Module: Ecological and/or Cultural Resources Data Element Table

Directions: Below are four classifications of ecological and/or cultural resources and their descriptions. Review the types of resources present and annotate the score that corresponds with the ecological and/or cultural resource classifications at the MRS.

Note: The terms *ecological resources* and *cultural resources* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Ecological and cultural resources present	There are both ecological and cultural resources present on the MRS.	5	
Ecological resources present	There are ecological resources present on the MRS.	3	3
Cultural resources present	There are cultural resources present on the MRS.	3	
No ecological or cultural resources present	There are no ecological resources or cultural resources present on the MRS.	0	
ECOLOGICAL AND/OR CULTURAL RESOURCES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**3**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ecological and/or Cultural Resources*** classification in the space below.

The State Historic Preservation Office (SHPO), U.S. Forest Service (USFS), and the Oregon Department of Fish and Wildlife (ODFW) were contacted regarding cultural and natural resources. The SHPO indicated that no potential cultural/archaeological resources were within the currently identified MRS No. 3. The ODFW, Oregon Department of Agriculture, and the U.S. Fish and Wildlife Service were contacted regarding identification of any potentially impacted, threatened, or endangered species at Camp Adair. Two plant species are known to grow in the Camp Adair area. However, the agencies were not concerned with the proposed site activities because of the fact they were minimally invasive (2007 SI Report, Sections 2.4.7, 3.2.1 and 3.2.2).

Table 10

Determining the EHE Module Rating

DIRECTIONS:

1. From Tables 01 - 09, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **EHE Module Total** box below.

4. Identify the appropriate range for the **EHE Module Total** at right.

5. Identify the **EHE Module Rating** that corresponds to the range selected and record this rating in the **EHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

	Source	Score	Value
Explosive Hazard Factor Data Elements			
Munitions Type	Table 01	30	40
Source of Hazard	Table 02	10	
Accessibility Factor Data Elements			
Location of Munitions	Table 03	5	20
Ease of Access	Table 04	10	
Status of Property	Table 05	5	
Receptor Factor Data Elements			
Population Density	Table 06	1	14
Population Near Hazard	Table 07	5	
Types of Activities/Structures	Table 08	5	
Ecological and/or Cultural Resources	Table 09	3	
EHE MODULE TOTAL			**74**

EHE Module Total	EHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected Explosive Hazard
EHE MODULE RATING	**C**

Table 11

CHE Module: CWM Configuration Data Element Table

Directions: Below are seven classifications of CWM configuration and their descriptions. Annotate the score(s) that correspond to **all** CWM configurations known or suspected to be present at the MRS.

Note: The terms *CWM/UXO*, *CWM/DMM*, *physical evidence*, and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
CWM, explosive configuration either UXO or damaged DMM	The CWM known or suspected of being present at the MRS is (a) explosively configured CWM that are UXO (i.e. CWM/UXO), or (b) explosively configured CWM that are DMM (i.e. CWM/DMM) that have been damaged.	30	
CWM mixed with UXO	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged, or nonexplosively configured CWM/DMM, or CWM not configured as a munition, that are commingled with conventional munitions that are UXO.	25	
CWM, explosive configuration that are undamaged DMM	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged.	20	
CWM, not explosively configured or CWM, bulk container	The CWM known or suspected of being present at the MRS is (a) nonexplosively configured CWM/DMM, or (b) bulk CWM/DMM (e.g., ton container).	15	
CAIS K941 and CAIS K942	The CWM/DMM known or suspected of being present at the MRS is CAIS K941(toxic gas set M-1) or CAIS K942 (toxic gas set M-2/E11).	12	
CAIS (chemical agent identification sets)	Only CAIS, other than CAIS K941 and K942, are known or suspected of being present at the MRS.	10	
Evidence of no CWM	Following investigation, the physical evidence indicates that CWM are not present at the MRS, or the historical evidence indicates that CWM are not present at the MRS.	0	0
CWM CONFIGURATION	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**0**

DIRECTIONS: Document any MRS-specific data used in selecting the ***CWM Configuration*** classifications in the space below.

As there are no records of CWM munitions being used or found at MRS No. 3.

Table 20

Determining the CHE Module Rating

DIRECTIONS:

1. From Tables 11 - 19, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **CHE Module Total** box below.

	Source	Score	Value
CWM Hazard Factor Data Elements			
CWM Configuration	Table 11	0	0
Sources of CWM	Table 12	0	
Accessibility Factor Data Elements			
Location of CWM	Table 13	0	0
Ease of Access	Table 14	0	
Status of Property	Table 15	0	
Receptor Factor Data Elements			
Population Density	Table 16	0	0
Population Near Hazard	Table 17	0	
Types of Activities/Structures	Table 18	0	
Ecological and/or Cultural Resources	Table 19	0	
		CHE MODULE TOTAL	**0**

4. Identify the appropriate range for the **CHE Module Total** at right.

5. Identify the **CHE Module Rating** that corresponds to the range selected and record this rating in the **CHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

CHE Module Total	CHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected CWM Hazard
CHE MODULE RATING	**No Known or Suspected CWM Hazard**

Table 21

HHE Module: Groundwater Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's groundwater and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the groundwater, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
		Sum the Ratios	

CHF Scale	CHF Value
CHF > 100	**H (High)**
100 > CHF >2	**M (Medium)**
2 > CHF	**L (Low)**

CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the groundwater migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the groundwater is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in groundwater has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the groundwater to a potential point of exposure (possibly due to geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the groundwater receptors at the MRS.

Classification	Description	Value
Identified	There is a threatened water supply well downgradient of the source and the groundwater is a current source of drinking water or source of water for other beneficial uses such as irrigation/agriculture (equivalent to Class I or IIA aquifer).	H
Potential	There is no threatened water supply well downgradient of the source and the groundwater is currently or potentially usable for drinking water, irrigation, or agriculture (equivalent to Class I, IIA, or IIB aquifer).	M
Limited	There is no potentially threatened water supply well downgradient of the source and the groundwater is not considered a potential source of drinking water and is of limited beneficial use (equivalent to Class IIIA or IIIB aquifer, or where perched aquifer exists only).	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Groundwater MC Hazard	**X**

Table 22

HHE Module: Surface Water - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface water, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		
CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).		

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Human Endpoint) MC Hazard	**X**

Table 23

HHE Module: Sediment - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the site's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for human endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		
CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).		

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	
Place an "X" in the box to the right if there is no known or suspected Sediment (Human Endpoint) MC Hazard		**X**

Table 24

HHE Module: Surface Water - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the surface water, select the box at the bottom of the table.

Note: Use either dissolved or total metals analyses.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		
CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).		

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Ecological Endpoint) MC Hazard	**X**

Table 25

HHE Module: Sediment - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		
CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).		

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Sediment (Ecological Endpoint) MC Hazard	**X**

Table 26

HHE Module: Surface Soil - Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface soil and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface soil, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface soil migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface soil is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface soil has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface soil to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface soil receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface soil to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface soil to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface soil to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	
Place an "X" in the box to the right if there is no known or suspected Surface Soil MC Hazard		**X**

Table 27

HHE Module: Supplemental Contaminant Hazard Factor Table

Contaminant Hazard Factor (CHF)

Directions: **Only use this table if there are more than five contaminants present at the MRS.** This is a supplemental table designed to hold information about contaminants that do not fit in the previous tables. Indicate the **media** in which these contaminants are present. Then record all **contaminants**, their **maximum concentrations** and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Calculate and record the **ratio** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** for each medium on the appropriate media-specific tables.

Note: For human exposures to groundwater and surface water, use dissolved, rather than total, metals analyses when both are available. Remember not to add ratios from different media.

Media	Contaminant [CAS No.]	Maximum Concentration	Units	Comparison Value	Units	Ratios
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
					SUBTOTAL FOR SURFACE SOIL	**0**
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
					SUBTOTAL FOR SEDIMENT	**0**
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
					SUBTOTAL FOR SURFACE WATER	**0**
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
					SUBTOTAL FOR GROUNDWATER	**0**

Table 28

Determining the HHE Module Rating

DIRECTIONS:

1. Record the letter values (H, M, L) for the **Contaminant Hazard**, **Migration Pathway**, and **Receptor Factors** for the media (from Tables 21 - 26) in the corresponding boxes below.
2. Record the media's three-letter combinations in the **Three-Letter-Combination** boxes below (three-letter combinations are arranged from Hs to Ms to Ls).
3. Using the reference provided below, determine each medium's rating (A - G) and record the letter in the corresponding **Media Rating** box below.

Medium (Source)	Contaminant Hazard Factor Value	Migratory Pathway Factor Value	Receptor Factor Value	Three-Letter Combination (Hs-Ms-Ls)	Media Rating (A - G)
Table 21 - Groundwater					
Table 22 - Surface Water (Human Endpoint)					
Table 23 - Sediment (Human Endpoint)					
Table 24 - Surface Water (Ecological Endpoint)					
Table 25 - Sediment (Ecological Endpoint)					
Table 26 - Surface Soil					
			HHE MODULE RATING		**No Known or Suspected MC Hazard**

DIRECTIONS (Continued):

4. Select the single highest **Media Rating** (A is the highest; G is the lowest) and enter the letter in the **HHE Module Rating** box below.

HHE Ratings (for reference only)	
HHH	A
HHM	B
HHL	C
HMM	
HML	D
MMM	
HLL	E
MML	
MLL	F
LLL	G

NOTE: An alternative module rating may be assigned when a module letter rating is used when more information is needed to score one or more media, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

Alternative Module Ratings	
	Evaluation Pending
	No Longer Required
	No Known or Suspected MC Hazard

Table 29

MRS Priority

DIRECTIONS: In the chart below, enter the letter **rating** for each module recorded in Table 10 (EHE), Table 20 (CHE), and Table 28 (HHE). Enter the corresponding numerical **priority** for each module. If information to determine the module rating is not available, choose the appropriate alternative module rating. The MRS priority is the single highest priority; record this number in the **MRS or Alternative Priority** box at the bottom of the table.

NOTE: An MRS assigned Priority 1 has the highest relative priority; an MRS assigned Priority 8 has the lowest relative priority. Only an MRS with CWM known or suspected to be present can be assigned Priority 1; an MRS that has CWM known or suspected to be present cannot be assigned Priority 8.

EHE Rating	Priority	CHE Rating	Priority	HHE Rating	Priority
		A	1		
A	2	B	2	A	2
B	3	C	3	B	3
C	4	D	4	C	4
D	5	E	5	D	5
E	6	F	6	E	6
F	7	G	7	F	7
G	8			G	8
Evaluation Pending		Evaluation Pending		Evaluation Pending	
No Longer Required		No Longer Required		No Longer Required	
No Known or Suspected Explosive Hazard		No Known or Suspected CWM Hazard		No Known or Suspected MC Hazard	

Reference Table 10:		Reference Table 20:		Reference Table 28:	
EHE Module Rating	Priority	CHE Module Rating	Priority	HHE Module Rating	Priority
C	4	No Known or Suspected CWM Hazard	No Known or Suspected CWM Hazard	No Known or Suspected MC Hazard	No Known or Suspected MC Hazard

MRS or Alternative Priority	4

Table A

MRS Background Information

DIRECTIONS: Record the background information below for the MRS to be evaluated. Much of this information is available from DoD databases, such as RMIS. If the MRS is located on a FUDS property, the suitable FUDS property information should be substituted. In the MRS summary, briefly describe the UXO, DMM, or MC that are known or suspected to be present, the exposure setting (the MRS's physical environment), any other incidental non-munitions related contaminants found at the MRS (e.g., benzene, trichloroethylene), and any potentially exposed human and ecological receptors. Include a map of the MRS, if one is available.

Munitions Response Site (MRS) Name:	**MRS No. 4, Range Complex No. 3**
Component:	US Army
Installation/Property Name:	**Camp Adair/Adair Air Force Station**
Location (City, County, State):	Polk County, Oregon
UTM Coordinates (NAD83):	N 4959902.89, E 470791.63
Site Name (RMIS ID):	Range Complex No. 3 (F10OR002903R18)
Project Name (Project No.):	Formerly Used Defense Sites, Military Munitions Response Program Site Inspections at Multiple Sites (116188)
Date Information Entered/Updated:	31-May-2007
Point of Contact (Name/Phone):	William Graney/206-764-3494

Project Phase ("X" only one):									
		PA	**X**	**SI**		**RI**		**FS**		**RD**
		RA-C		**RIP**		**RA-O**		**RC**		**LTM**

Media Evaluated ("X" all that apply):				
	X	**Groundwater (human receptor)**	**X**	**Sediment (human receptor)**
	X	**Surface soil (human receptor)**		**Surface water (ecological receptor)**
	X	**Sediment (ecological receptor)**		**Surface water (human receptor)**

MRS Summary

MRS Description: Describe the munitions-related activities that occurred at the installation, the dates of operation, and the UXO, DMM (by type of munition, if known) or munitions constituents (by type, if known) known or suspected to be present):

MRS No. 4 consists of site number F10OR002903R18 (Range Complex No. 3). This range consisted of 3 field combat ranges. Live fire combat maneuver and support coordination excercises were conducted. All infantry and crew-served conventional weapons were authorized. Weapons used include .20-cal rifle, .30-cal light and heavy machine guns, .50-cal heavy machine gun, anti-tank guns, 105mm and 155mm howitzers. Potential contaminants include select metals from bomb casings, fuzes and detonators, and explosives. The MRS is currently used for agricultural crop growing operations, Christmas tree growing, and residences.

Description of Pathways for Human and Ecological Receptors:

The pathways evaluated with respect to MRS No. 4 are: terrestrial and streams/sediments for humans (agricultural workers and residents) and ecological (ingestion and uptake by wildlife and plants) and groundwater for humans (direct and ingestion by agricultural workers and residents).

Description of Receptors (Human and Ecological):

Receptors in the area of MRS No. 4 include agricultural workers, residents, plants, and wildlife.

Table 1
EHE Module: Munitions Type Data Element Table

Directions: Below are eleven classifications of munitions and their descriptions. Annotate the score(s) that correspond with **all** munitions types known or suspected to be present at the MRS.

Note: The terms *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Sensitive	All UXO that are considered likely to function upon any interaction with exposed persons [e.g., submunitions, 40mm high-explosive (HE) grenades, white phosphorous (WP) munitions, high-explosive antitank (HEAT) munitions, and practice munitions with sensitive fuzes, but excluding all other practice munitions].	30	
	All hand grenades containing energetic filler.		
	Bulk primary explosives, or mixtures of these with environmental media, such that the mixture poses an explosive hazard.		
High explosive (used or damaged)	All UXO containing a high-explosive filler (e.g., RDX, Composition B), that are not considered "sensitive."	25	25
	All DMM containing a high-explosive filler that have been damaged by burning or detonation, or deteriorated to the point of instability.		
Pyrotechnic (used or damaged)	All UXO containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades).	20	
	All DMM containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades) that have been damaged by burning or detonation, or deteriorated to the point of instability.		
High explosive (unused)	All DMM containing a high-explosive filler that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	15	15
Propellant	All UXO containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor).	15	15
	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor) that are damaged by burning or detonation, or deteriorated to the point of instability.		
Bulk secondary high explosives, pyrotechnics, or propellant	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor), that are deteriorated.	10	
	Bulk secondary high explosives, pyrotechnic compositions, or propellant (not contained in a munition), or mixtures of these with environmental media such that the mixture poses an explosive hazard.		
Pyrotechnic (not used or damaged)	All DMM containing a pyrotechnic filler (i.e. red phosphorous), other than white phosphorous filler, that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	10	10
Practice	All UXO that are practice munitions that are not associated with a sensitive fuze.	5	5
	All DMM that are practice munitions that are not associated with a sensitive fuze and that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.		
Riot control	All UXO or DMM containing a riot control agent filler (e.g., tear gas).	3	
Small arms	All used munitions or DMM that are categorized as small arms ammunition [Physical evidence or historical evidence that no other types of munitions (e.g., grenades, subcaliber training rockets, demolition charges) were used or are present on the MRS is required for selection of this category.].	2	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
MUNITIONS TYPE	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**25**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Munitions Type*** classifications in the space below.

The ASR Site Inspection team inspected Range Complex No. 3 and did not report any MEC or munitions debris. From clearance activities completed in 1946, duds were found and destroyed at the artillery range (ASR). However, the report was not specific as to whether Range Complex No. 3 was included. For the purposes of scoring, the assumption is that duds were found in Range Complex No. 3. The 2006 SI field team did not observe any ordnance or explosives during site sampling activities.

Table 2

EHE Module: Source of Hazard Data Element Table

Directions: Below are eleven classifications describing sources of explosive hazards. Annotate the score(s) that correspond with **all** sources of explosive hazards known or suspected to be present at the MRS.

Note: The terms *former range* , *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Former range	The MRS is a former military range where munitions (including practice munitions with sensitive fuzes) have been used. Such areas include: impact or target areas, associated buffer and safety zones, firing points, and live-fire maneuver areas.	10	10
Former munitions treatment (i.e. OB/OD) unit	The MRS is a location where UXO or DMM (e.g., munitions, bulk explosives, bulk pyrotechnic, or bulk propellants) were burned or detonated for the purpose of treatment prior to disposal.	8	
Former practice munitions range	The MRS is a former military range on which only practice munitions without sensitive fuzes were used.	6	
Former maneuver area	The MRS is a former maneuver area where no munitions other than flares, simulators, smokes, and blanks were used. There must be evidence that no other munitions were used at the location to place an MRS into this category.	5	
Former burial pit or other disposal area	The MRS is a location where DMM were buried or disposed of (e.g., disposed of into a water body) without prior thermal treatment.	5	
Former industrial operating facilities	The MRS is a location that is a former munitions maintenance, manufacturing, or demilitarization facility.	4	
Former firing points	The MRS is a firing point, where the firing point is delineated as an MRS separate from the rest of a former military range.	4	
Former missile or air defense artillery emplacements	The MRS is a former missile defense or air defense artillery (ADA) emplacement not associated with a military range.	2	
Former storage or transfer points	The MRS is a location where munitions were stored or handled for transfer between different modes of transportation (e.g., rail to truck, truck to weapon system).	2	
Former small arms range	The MRS is a former military range where only small arms ammunition was used [There must be evidence that no other types of munitions (e.g., grenades) were used or are present to place an MRS iinto this category.].	1	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that no UXO or DMM are present, or there is historical evidence indicating that no UXO or DMM are present.	0	
SOURCE OF HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**10**

DIRECTIONS: Document any MRS-specific data used in selecting the **Source of Hazard** classifications in the space below.

MRS No. 4 is a former training range, Range Complex No. 3. Live fire combat maneuver and support coordination excercises were conducted. All infantry and crew-served conventional weapons were authorized. Weapons used include .20-cal rifle, .30-cal light and heavy machine guns, .50-cal heavy machine gun, anti-tank guns, 105mm and 155mm howitzers.

Table 3
EHE Module: Location of Munitions Data Element Table

Directions: Below are eight classifications of munitions locations and their descriptions. Annotate the score(s) that correspond with **all** locations where munitions are located or suspected of being found at the MRS.

Note: The terms *surface* , *subsurface* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Confirmed surface	Physical evidence indicates that there are UXO or DMM on the surface of the MRS. Historical evidence (e.g., a confirmed incident report or accident report) indicates there are UXO or DMM on the surface of the MRS.	25	
Confirmed subsurface, active	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM.	20	20
Confirmed subsurface, stable	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed.	15	
Suspected (physical evidence)	There is physical evidence (e.g., munitions debris, such fragments, penetrators, projectiles, shell casings, links, fins), other than the documented presence of UXO or DMM, indicating that UXO or DMM may be present at the MRS.	10	
Suspected (historical evidence)	There is historical evidence indicating that UXO or DMM may be present at the MRS.	5	5
Subsurface, physical constraint	There is physical or historical evidence indicating that UXO or DMM may be present in the subsurface, but there is a physical constraint (e.g., pavement, water depth over 120 feet) preventing direct access to the UXO or DMM.	2	
Small arms (regardless of location)	The presence of small arms ammunition is confirmed or suspected, regardless of other factors such as geological stability [There must be evidence that no other types of munitions (e.g., grenades) were used or are present at the MRS to place an MRS into this category.]	1	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
LOCATION OF MUNITIONS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 25).		**20**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Location of Munitions*** classifications in the space below.

The ASR Site Inspection team inspected Range Complex No. 3. They did not report finding any MEC or munitions debris (ASR, 2001). From clearance activities completed in 1946, duds were found and destroyed at the artillery range (ASR). However, the report was not specific as to whether Range Complex No. 3 was included. For the purposes of scoring, the assumption is that duds were found in Range Complex No. 3.

Table 4
EHE Module: Ease of Access Data Element Table

Directions: Below are four classifications of barrier types that can surround an MRS and their descriptions. The barrier type is directly related to the ease of public access to any explosive materiel. Annotate the score that corresponds with the ease of access to the MRS.

Note: The term *barrier* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
No barrier	There is no barrier preventing access to any part of the MRS (i.e. all parts of the MRS are accessible).	10	10
Barrier to MRS access is incomplete	There is a barrier preventing access to parts of the MRS, but not the entire MRS.	8	
Barrier to MRS access is complete but not monitored	There is a barrier preventing access to all parts of the MRS, but there is no surveillance (e.g., by a guard) to ensure that the barrier is effectively preventing access to all parts of the MRS.	5	
Barrier to MRS access is complete and monitored	There is a barrier preventing access to all parts of the MRS, and there is active, continual surveillance (e.g., by a guard, video monitoring) to ensure that the barrier is effectively preventing access to all parts of the MRS.	0	
EASE OF ACCESS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**10**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ease of Access*** classification in the space below.

As of August 2006, there is no fencing or signage restricting or limiting access to the area by the general public (2007 SI Report, Section 4.2.2).

Table 5
EHE Module: Status of Property Data Element Table

Directions: Below are three classifications of the status of a property within the Department of Defense (DoD) and their descriptions. Annotate the score that corresponds with the status of property at the MRS.

Note: N/A

Classification	Description	Possible Score	Score
Non-DoD control	The MRS is at a location that is no longer owned by, leased to, or otherwise possessed or used by DoD. Examples are privately owned land or water bodies; land or water bodies owned or controlled by state, tribal, or local governments; and land or water bodies managed by other federal agencies.	5	5
Scheduled for transfer from DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD, and DoD plans to transfer that land or water body to the control of another entity (e.g., a state, tribal, or local government; a private party; another federal agency) within 3 years from the date the rule is applied.	3	
DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD. With respect to property that is leased or otherwise possessed, DoD must control access to the MRS 24 hours per day, every day of the calendar year.	0	
STATUS OF PROPERTY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Status of Property*** classification in the space below.

Camp Adair was acquired by the Army beginning in 1941. In 1946, the War Department declared Camp Adair surplus and was assigned to the War Assets Administration for disposition under the Surplus Property Act. In 1946, the property was transferred to the Department of Agriculture for sale by the Federal Land Bank. There is no controlled access to the MRS (2007 SI Report, Section 4.2.2).

Table 6
EHE Module: Population Density Data Element Table

Directions: Below are three classifications of population density and their descriptions. Determine the population density per square mile in the vicinity of the MRS and annotate the score that corresponds with the associated population density.

Note: If an MRS is located in more than one county, use the largest population density value among the counties. If the MRS is within or borders a city or town, use the population density for the city or town, rather than that of the county.

Classification	Description	Possible Score	Score
> 500 persons per square mile	There are more than 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	5	
100 - 500 persons per square mile	There are 100 to 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	3	
< 100 persons per square mile	There are fewer than 100 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	1	1
POPULATION DENSITY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**1**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Density*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 7
EHE Module: Population Near Hazard Data Element Table

Directions: Below are six classifications describing the number of inhabited structures near the MRS. The number of inhabited buildings relates to the population near the hazard. Determine the number of inhabited structures within two miles of the MRS boundary and annotate the score that corresponds with the associated population near the known or suspected hazard.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
26 or more inhabited structures	There are 26 or more inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	5	5
16 to 25 inhabited structures	There are 16 to 25 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	4	
11 to 15 inhabited structures	There are 11 to 15 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	3	
6 to 10 inhabited structures	There are 6 to 10 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	2	
1 to 5 inhabited structures	There are 1 to 5 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	1	
0 inhabited structures	There are no inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	0	
POPULATION NEAR HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Near Hazard*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 8

EHE Module: Types of Activities/Structures Data Element Table

Directions: Below are five classifications of activities and/or inhabited structures near the hazard and their descriptions. Review the types of activities that occur and/or structures that are present within two miles of the MRS and annotate the score(s) that correspond with **all** the activities/structure classifications at the MRS.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Residential, educational, commercial, or subsistence	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with any of the following purposes: residential, educational, child care, critical assets (e.g., hospitals, fire and rescue, police stations, dams), hotels, commercial, shopping centers, playgrounds, community gathering areas, religious sites, or sites used for subsistence hunting, fishing, and gathering.	5	5
Parks and recreational areas	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with parks, nature preserves, or other recreational uses.	4	4
Agricultural, forestry	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with agriculture or forestry.	3	3
Industrial or warehousing	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with industrial activities or warehousing.	2	
No known or recurring activities	There are no known or recurring activities occurring up to two miles from the MRS's boundary or within the MRS's boundary.	1	
TYPES OF ACTIVITIES/STRUCTURES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Types of Activities/Structures*** classifications in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 9

EHE Module: Ecological and/or Cultural Resources Data Element Table

Directions: Below are four classifications of ecological and/or cultural resources and their descriptions. Review the types of resources present and annotate the score that corresponds with the ecological and/or cultural resource classifications at the MRS.

Note: The terms *ecological resources* and *cultural resources* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Ecological and cultural resources present	There are both ecological and cultural resources present on the MRS.	5	
Ecological resources present	There are ecological resources present on the MRS.	3	3
Cultural resources present	There are cultural resources present on the MRS.	3	
No ecological or cultural resources present	There are no ecological resources or cultural resources present on the MRS.	0	
ECOLOGICAL AND/OR CULTURAL RESOURCES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**3**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ecological and/or Cultural Resources*** classification in the space below.

The State Historic Preservation Office (SHPO), U.S. Forest Service (USFS), and the Oregon Department of Fish and Wildlife (ODFW) were contacted regarding cultural and natural resources. The SHPO indicated that no potential cultural/archaeological resources were within the currently identified MRS No. 4. The ODFW, Oregon Department of Agriculture, and the U.S. Fish and Wildlife Service were contacted regarding identification of any potentially impacted, threatened, or endangered species at Camp Adair. Two plant species are known to grow in the Camp Adair area. However, the agencies were not concerned with the proposed site activities because of the fact they were minimally invasive (2007 SI Report, Sections 2.4.7, 3.2.1 and 3.2.2).

Table 10

Determining the EHE Module Rating

DIRECTIONS:

1. From Tables 01 - 09, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **EHE Module Total** box below.

	Source	Score	Value
Explosive Hazard Factor Data Elements			
Munitions Type	Table 01	25	35
Source of Hazard	Table 02	10	
Accessibility Factor Data Elements			
Location of Munitions	Table 03	20	35
Ease of Access	Table 04	10	
Status of Property	Table 05	5	
Receptor Factor Data Elements			
Population Density	Table 06	1	14
Population Near Hazard	Table 07	5	
Types of Activities/Structures	Table 08	5	
Ecological and/or Cultural Resources	Table 09	3	
EHE MODULE TOTAL			**84**

4. Identify the appropriate range for the **EHE Module Total** at right.

5. Identify the **EHE Module Rating** that corresponds to the range selected and record this rating in the **EHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

EHE Module Total	EHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected Explosive Hazard
EHE MODULE RATING	**B**

Table 11

CHE Module: CWM Configuration Data Element Table

Directions: Below are seven classifications of CWM configuration and their descriptions. Annotate the score(s) that correspond to **all** CWM configurations known or suspected to be present at the MRS.

Note: The terms *CWM/UXO*, *CWM/DMM*, *physical evidence*, and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
CWM, explosive configuration either UXO or damaged DMM	The CWM known or suspected of being present at the MRS is (a) explosively configured CWM that are UXO (i.e. CWM/UXO), or (b) explosively configured CWM that are DMM (i.e. CWM/DMM) that have been damaged.	30	
CWM mixed with UXO	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged, or nonexplosively configured CWM/DMM, or CWM not configured as a munition, that are commingled with conventional munitions that are UXO.	25	
CWM, explosive configuration that are undamaged DMM	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged.	20	
CWM, not explosively configured or CWM, bulk container	The CWM known or suspected of being present at the MRS is (a) nonexplosively configured CWM/DMM, or (b) bulk CWM/DMM (e.g., ton container).	15	
CAIS K941 and CAIS K942	The CWM/DMM known or suspected of being present at the MRS is CAIS K941(toxic gas set M-1) or CAIS K942 (toxic gas set M-2/E11).	12	
CAIS (chemical agent identification sets)	Only CAIS, other than CAIS K941 and K942, are known or suspected of being present at the MRS.	10	
Evidence of no CWM	Following investigation, the physical evidence indicates that CWM are not present at the MRS, or the historical evidence indicates that CWM are not present at the MRS.	0	0
CWM CONFIGURATION	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**0**

DIRECTIONS: Document any MRS-specific data used in selecting the ***CWM Configuration*** classifications in the space below.

As there are no records of CWM munitions being used or found at MRA/MRS No. 4.

Table 20

Determining the CHE Module Rating

DIRECTIONS:

1. From Tables 11 - 19, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **CHE Module Total** box below.

	Source	Score	Value
CWM Hazard Factor Data Elements			
CWM Configuration	Table 11	0	0
Sources of CWM	Table 12	0	
Accessibility Factor Data Elements			
Location of CWM	Table 13	0	0
Ease of Access	Table 14	0	
Status of Property	Table 15	0	
Receptor Factor Data Elements			
Population Density	Table 16	0	0
Population Near Hazard	Table 17	0	
Types of Activities/Structures	Table 18	0	
Ecological and/or Cultural Resources	Table 19	0	
		CHE MODULE TOTAL	**0**

4. Identify the appropriate range for the **CHE Module Total** at right.

5. Identify the **CHE Module Rating** that corresponds to the range selected and record this rating in the **CHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

CHE Module Total	CHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected CWM Hazard
CHE MODULE RATING	**No Known or Suspected CWM Hazard**

Table 21

HHE Module: Groundwater Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's groundwater and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the groundwater, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
		Sum the Ratios	

CHF Scale	CHF Value
CHF > 100	**H (High)**
100 > CHF >2	**M (Medium)**
2 > CHF	**L (Low)**

CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the groundwater migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the groundwater is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in groundwater has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the groundwater to a potential point of exposure (possibly due to geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the groundwater receptors at the MRS.

Classification	Description	Value
Identified	There is a threatened water supply well downgradient of the source and the groundwater is a current source of drinking water or source of water for other beneficial uses such as irrigation/agriculture (equivalent to Class I or IIA aquifer).	H
Potential	There is no threatened water supply well downgradient of the source and the groundwater is currently or potentially usable for drinking water, irrigation, or agriculture (equivalent to Class I, IIA, or IIB aquifer).	M
Limited	There is no potentially threatened water supply well downgradient of the source and the groundwater is not considered a potential source of drinking water and is of limited beneficial use (equivalent to Class IIIA or IIIB aquifer, or where perched aquifer exists only).	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Groundwater MC Hazard	**X**

Table 22

HHE Module: Surface Water - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface water, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		
CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).		

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Human Endpoint) MC Hazard	**X**

Table 23

HHE Module: Sediment - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the site's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for human endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		
CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).		

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	
Place an "X" in the box to the right if there is no known or suspected Sediment (Human Endpoint) MC Hazard		**X**

Table 24

HHE Module: Surface Water - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the surface water, select the box at the bottom of the table.

Note: Use either dissolved or total metals analyses.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Ecological Endpoint) MC Hazard	**X**

Table 25

HHE Module: Sediment - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Sediment (Ecological Endpoint) MC Hazard	**X**

Table 26

HHE Module: Surface Soil - Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface soil and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface soil, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
7439-98-7 (Molybdenum)	5.70	380.00	0
		Total from Table 27	
		Sum the Ratios	0

CHF Scale	CHF Value
CHF > 100	H (High)
100 > CHF >2	M (Medium)
2 > CHF	L (Low)

CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	**L**

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface soil migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface soil is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface soil has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface soil to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	**M**

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface soil receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface soil to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface soil to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface soil to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	**H**

Place an "X" in the box to the right if there is no known or suspected Surface Soil MC Hazard	

Table 27

HHE Module: Supplemental Contaminant Hazard Factor Table

Contaminant Hazard Factor (CHF)

Directions: **Only use this table if there are more than five contaminants present at the MRS.** This is a supplemental table designed to hold information about contaminants that do not fit in the previous tables. Indicate the **media** in which these contaminants are present. Then record all **contaminants**, their **maximum concentrations** and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Calculate and record the **ratio** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** for each medium on the appropriate media-specific tables.

Note: For human exposures to groundwater and surface water, use dissolved, rather than total, metals analyses when both are available. Remember not to add ratios from different media.

Media	Contaminant [CAS No.]	Maximum Concentration	Units	Comparison Value	Units	Ratios
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
					SUBTOTAL FOR SURFACE SOIL	**0**
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
					SUBTOTAL FOR SEDIMENT	**0**
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
					SUBTOTAL FOR SURFACE WATER	**0**
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
					SUBTOTAL FOR GROUNDWATER	**0**

Table 28

Determining the HHE Module Rating

DIRECTIONS:

1. Record the letter values (H, M, L) for the **Contaminant Hazard**, **Migration Pathway**, and **Receptor Factors** for the media (from Tables 21 - 26) in the corresponding boxes below.
2. Record the media's three-letter combinations in the **Three-Letter-Combination** boxes below (three-letter combinations are arranged from Hs to Ms to Ls).
3. Using the reference provided below, determine each medium's rating (A - G) and record the letter in the corresponding **Media Rating** box below.

Medium (Source)	Contaminant Hazard Factor Value	Migratory Pathway Factor Value	Receptor Factor Value	Three-Letter Combination (Hs-Ms-Ls)	Media Rating (A - G)
Table 21 - Groundwater					
Table 22 - Surface Water (Human Endpoint)					
Table 23 - Sediment (Human Endpoint)					
Table 24 - Surface Water (Ecological Endpoint)					
Table 25 - Sediment (Ecological Endpoint)					
Table 26 - Surface Soil	L	M	H	HML	D
			HHE MODULE RATING		**D**

DIRECTIONS (Continued):

4. Select the single highest **Media Rating** (A is the highest; G is the lowest) and enter the letter in the **HHE Module Rating** box below.

HHE Ratings (for reference only)	
HHH	A
HHM	B
HHL	C
HMM	
HML	D
MMM	
HLL	E
MML	
MLL	F
LLL	G

NOTE: An alternative module rating may be assigned when a module letter rating is used when more information is needed to score one or more media, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

Alternative Module Ratings	
	Evaluation Pending
	No Longer Required
	No Known or Suspected MC Hazard

Table 29

MRS Priority

DIRECTIONS: In the chart below, enter the letter **rating** for each module recorded in Table 10 (EHE), Table 20 (CHE), and Table 28 (HHE). Enter the corresponding numerical **priority** for each module. If information to determine the module rating is not available, choose the appropriate alternative module rating. The MRS priority is the single highest priority; record this number in the **MRS or Alternative Priority** box at the bottom of the table.

NOTE: An MRS assigned Priority 1 has the highest relative priority; an MRS assigned Priority 8 has the lowest relative priority. Only an MRS with CWM known or suspected to be present can be assigned Priority 1; an MRS that has CWM known or suspected to be present cannot be assigned Priority 8.

EHE Rating	Priority	CHE Rating	Priority	HHE Rating	Priority
		A	1		
A	2	B	2	A	2
B	3	C	3	B	3
C	4	D	4	C	4
D	5	E	5	D	5
E	6	F	6	E	6
F	7	G	7	F	7
G	8			G	8
Evaluation Pending		Evaluation Pending		Evaluation Pending	
No Longer Required		No Longer Required		No Longer Required	
No Known or Suspected Explosive Hazard		No Known or Suspected CWM Hazard		No Known or Suspected MC Hazard	

Reference Table 10:		Reference Table 20:		Reference Table 28:	
EHE Module Rating	Priority	CHE Module Rating	Priority	HHE Module Rating	Priority
B	3	No Known or Suspected CWM Hazard	No Known or Suspected CWM Hazard	D	5

MRS or Alternative Priority	3

Table A

MRS Background Information

DIRECTIONS: Record the background information below for the MRS to be evaluated. Much of this information is available from DoD databases, such as RMIS. If the MRS is located on a FUDS property, the suitable FUDS property information should be substituted. In the MRS summary, briefly describe the UXO, DMM, or MC that are known or suspected to be present, the exposure setting (the MRS's physical environment), any other incidental non-munitions related contaminants found at the MRS (e.g., benzene, trichloroethylene), and any potentially exposed human and ecological receptors. Include a map of the MRS, if one is available.

Munitions Response Site (MRS) Name:	**MRS No. 5, East Live Hand Grenade Court**
Component:	US Army
Installation/Property Name:	**Camp Adair/Adair Air Force Station**
Location (City, County, State):	Polk County, Oregon
UTM Coordinates (NAD83):	N 4954269.90, E 481088.45
Site Name (RMIS ID):	East Live Hand Grenade Court (F10OR002903R10)
Project Name (Project No.):	Formerly Used Defense Sites, Military Munitions Response Program Site Inspections at Multiple Sites (116188)
Date Information Entered/Updated:	31-May-2007
Point of Contact (Name/Phone):	William Graney/206-764-3494

Project Phase ("X" only one):									
		PA	X	**SI**		**RI**		**FS**		**RD**
		RA-C		**RIP**		**RA-O**		**RC**		**LTM**

Media Evaluated ("X" all that apply):				
		Groundwater (human receptor)	X	**Sediment (human receptor)**
	X	**Surface soil (human receptor)**		**Surface water (ecological receptor)**
	X	**Sediment (ecological receptor)**		**Surface water (human receptor)**

MRS Summary

MRS Description: Describe the munitions-related activities that occurred at the installation, the dates of operation, and the UXO, DMM (by type of munition, if known) or munitions constituents (by type, if known) known or suspected to be present):

MRS No. 5 consists of the East Live Hand Grenade Court. The East Live Hand Grenade Court was used to train troops in the use of explosive fragmentation grenades. Munitions used included MkII fragmentation hand grenades and M21 practice hand grenades. Potential contaminants include cast iron, TNT, and smokeless powder. The MRS is currently used for agricultural crop growing operations.

Description of Pathways for Human and Ecological Receptors:

The pathways evaluated with respect to MRS No. 5 are: terrestrial and streams/sediments for humans (agricultural workers and residents) and ecological (ingestion and uptake by wildlife and plants).

Description of Receptors (Human and Ecological):

Receptors in the area of MRS No. 5 include agricultural workers, residents, plants, and wildlife.

Table 1
EHE Module: Munitions Type Data Element Table

Directions: Below are eleven classifications of munitions and their descriptions. Annotate the score(s) that correspond with **all** munitions types known or suspected to be present at the MRS.

Note: The terms *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Sensitive	All UXO that are considered likely to function upon any interaction with exposed persons [e.g., submunitions, 40mm high-explosive (HE) grenades, white phosphorous (WP) munitions, high-explosive antitank (HEAT) munitions, and practice munitions with sensitive fuzes, but excluding all other practice munitions].	30	30
	All hand grenades containing energetic filler.		
	Bulk primary explosives, or mixtures of these with environmental media, such that the mixture poses an explosive hazard.		
High explosive (used or damaged)	All UXO containing a high-explosive filler (e.g., RDX, Composition B), that are not considered "sensitive."	25	
	All DMM containing a high-explosive filler that have been damaged by burning or detonation, or deteriorated to the point of instability.		
Pyrotechnic (used or damaged)	All UXO containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades).	20	
	All DMM containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades) that have been damaged by burning or detonation, or deteriorated to the point of instability.		
High explosive (unused)	All DMM containing a high-explosive filler that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	15	
Propellant	All UXO containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor).	15	
	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor) that are damaged by burning or detonation, or deteriorated to the point of instability.		
Bulk secondary high explosives, pyrotechnics, or propellant	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor), that are deteriorated.	10	
	Bulk secondary high explosives, pyrotechnic compositions, or propellant (not contained in a munition), or mixtures of these with environmental media such that the mixture poses an explosive hazard.		
Pyrotechnic (not used or damaged)	All DMM containing a pyrotechnic filler (i.e. red phosphorous), other than white phosphorous filler, that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	10	
Practice	All UXO that are practice munitions that are not associated with a sensitive fuze.	5	5
	All DMM that are practice munitions that are not associated with a sensitive fuze and that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.		
Riot control	All UXO or DMM containing a riot control agent filler (e.g., tear gas).	3	
Small arms	All used munitions or DMM that are categorized as small arms ammunition [Physical evidence or historical evidence that no other types of munitions (e.g., grenades, subcaliber training rockets, demolition charges) were used or are present on the MRS is required for selection of this category.].	2	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
MUNITIONS TYPE	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**30**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Munitions Type*** classifications in the space below.

The ASR Site Inspection team inspected the East Live Hand Grenade Court. The team did not report any MEC or munitoins debris. Munitions used included MkII fragmentation hand grenades and M21 practice hand grenades. There have been no reports of MEC at this MRS. However, similar nearby live hand grenade courts have had reports of grenades being found by farmers (2007 SI Report, Table 2-3).

Table 2

EHE Module: Source of Hazard Data Element Table

Directions: Below are eleven classifications describing sources of explosive hazards. Annotate the score(s) that correspond with **all** sources of explosive hazards known or suspected to be present at the MRS.

Note: The terms *former range* , *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Former range	The MRS is a former military range where munitions (including practice munitions with sensitive fuzes) have been used. Such areas include: impact or target areas, associated buffer and safety zones, firing points, and live-fire maneuver areas.	10	10
Former munitions treatment (i.e. OB/OD) unit	The MRS is a location where UXO or DMM (e.g., munitions, bulk explosives, bulk pyrotechnic, or bulk propellants) were burned or detonated for the purpose of treatment prior to disposal.	8	
Former practice munitions range	The MRS is a former military range on which only practice munitions without sensitive fuzes were used.	6	
Former maneuver area	The MRS is a former maneuver area where no munitions other than flares, simulators, smokes, and blanks were used. There must be evidence that no other munitions were used at the location to place an MRS into this category.	5	
Former burial pit or other disposal area	The MRS is a location where DMM were buried or disposed of (e.g., disposed of into a water body) without prior thermal treatment.	5	
Former industrial operating facilities	The MRS is a location that is a former munitions maintenance, manufacturing, or demilitarization facility.	4	
Former firing points	The MRS is a firing point, where the firing point is delineated as an MRS separate from the rest of a former military range.	4	
Former missile or air defense artillery emplacements	The MRS is a former missile defense or air defense artillery (ADA) emplacement not associated with a military range.	2	
Former storage or transfer points	The MRS is a location where munitions were stored or handled for transfer between different modes of transportation (e.g., rail to truck, truck to weapon system).	2	
Former small arms range	The MRS is a former military range where only small arms ammunition was used [There must be evidence that no other types of munitions (e.g., grenades) were used or are present to place an MRS iinto this category.].	1	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that no UXO or DMM are present, or there is historical evidence indicating that no UXO or DMM are present.	0	
SOURCE OF HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**10**

DIRECTIONS: Document any MRS-specific data used in selecting the **Source of Hazard** classifications in the space below.

MRS was used to train troops in the use of live hand grenades Munitions used included MkII fragmentation hand grenades and M21 practice hand grenades. There have been no reports of MEC at this MRS. However, similar nearby live hand grenade courts have had reports of grenades being found by farmers (2007 SI Report, Table 2-3).

Table 3
EHE Module: Location of Munitions Data Element Table

Directions: Below are eight classifications of munitions locations and their descriptions. Annotate the score(s) that correspond with **all** locations where munitions are located or suspected of being found at the MRS.

Note: The terms *surface* , *subsurface* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Confirmed surface	Physical evidence indicates that there are UXO or DMM on the surface of the MRS. Historical evidence (e.g., a confirmed incident report or accident report) indicates there are UXO or DMM on the surface of the MRS.	25	
Confirmed subsurface, active	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM.	20	
Confirmed subsurface, stable	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed.	15	
Suspected (physical evidence)	There is physical evidence (e.g., munitions debris, such fragments, penetrators, projectiles, shell casings, links, fins), other than the documented presence of UXO or DMM, indicating that UXO or DMM may be present at the MRS.	10	10
Suspected (historical evidence)	There is historical evidence indicating that UXO or DMM may be present at the MRS.	5	
Subsurface, physical constraint	There is physical or historical evidence indicating that UXO or DMM may be present in the subsurface, but there is a physical constraint (e.g., pavement, water depth over 120 feet) preventing direct access to the UXO or DMM.	2	
Small arms (regardless of location)	The presence of small arms ammunition is confirmed or suspected, regardless of other factors such as geological stability [There must be evidence that no other types of munitions (e.g., grenades) were used or are present at the MRS to place an MRS into this category.]	1	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
LOCATION OF MUNITIONS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 25).		**10**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Location of Munitions*** classifications in the space below.

The ASR Site Inspection team inspected the East Live Hand Grenade Court. The team did not report any MEC or munitoins debris. Munitions used included MkII fragmentation hand grenades and M21 practice hand grenades. There have been no reports of MEC at this MRS. However, similar nearby live hand grenade courts have had reports of grenades being found by farmers (2007 SI Report, Table 2-3).

Table 4
EHE Module: Ease of Access Data Element Table

Directions: Below are four classifications of barrier types that can surround an MRS and their descriptions. The barrier type is directly related to the ease of public access to any explosive materiel. Annotate the score that corresponds with the ease of access to the MRS.

Note: The term *barrier* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
No barrier	There is no barrier preventing access to any part of the MRS (i.e. all parts of the MRS are accessible).	10	10
Barrier to MRS access is incomplete	There is a barrier preventing access to parts of the MRS, but not the entire MRS.	8	
Barrier to MRS access is complete but not monitored	There is a barrier preventing access to all parts of the MRS, but there is no surveillance (e.g., by a guard) to ensure that the barrier is effectively preventing access to all parts of the MRS.	5	
Barrier to MRS access is complete and monitored	There is a barrier preventing access to all parts of the MRS, and there is active, continual surveillance (e.g., by a guard, video monitoring) to ensure that the barrier is effectively preventing access to all parts of the MRS.	0	
EASE OF ACCESS	**DIRECTIONS:** Record **<u>the single highest score</u>** from above in the box to the right (maximum score = 10).		**10**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ease of Access*** classification in the space below.

As of August 2006, there is no fencing or signage restricting or limiting access to the area by the general public (SI Report, Section 4.2.3).

Table 5
EHE Module: Status of Property Data Element Table

Directions: Below are three classifications of the status of a property within the Department of Defense (DoD) and their descriptions. Annotate the score that corresponds with the status of property at the MRS.

Note: N/A

Classification	Description	Possible Score	Score
Non-DoD control	The MRS is at a location that is no longer owned by, leased to, or otherwise possessed or used by DoD. Examples are privately owned land or water bodies; land or water bodies owned or controlled by state, tribal, or local governments; and land or water bodies managed by other federal agencies.	5	5
Scheduled for transfer from DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD, and DoD plans to transfer that land or water body to the control of another entity (e.g., a state, tribal, or local government; a private party; another federal agency) within 3 years from the date the rule is applied.	3	
DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD. With respect to property that is leased or otherwise possessed, DoD must control access to the MRS 24 hours per day, every day of the calendar year.	0	
STATUS OF PROPERTY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Status of Property*** classification in the space below.

Camp Adair was acquired by the Army beginning in 1941. In 1946, the War Department declared Camp Adair surplus and was assigned to the War Assets Administration for disposition under the Surplus Property Act. In 1946, the property was transferred to the Department of Agriculture for sale by the Federal Land Bank. The property is currently owner by a private citizen. There is no controlled access to the MRS (SI Report, Section 4.2.3).

Table 6
EHE Module: Population Density Data Element Table

Directions: Below are three classifications of population density and their descriptions. Determine the population density per square mile in the vicinity of the MRS and annotate the score that corresponds with the associated population density.

Note: If an MRS is located in more than one county, use the largest population density value among the counties. If the MRS is within or borders a city or town, use the population density for the city or town, rather than that of the county.

Classification	Description	Possible Score	Score
> 500 persons per square mile	There are more than 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	5	
100 - 500 persons per square mile	There are 100 to 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	3	
< 100 persons per square mile	There are fewer than 100 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	1	1
POPULATION DENSITY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**1**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Density*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (SI Report, Section 2.4.3).

Table 7
EHE Module: Population Near Hazard Data Element Table

Directions: Below are six classifications describing the number of inhabited structures near the MRS. The number of inhabited buildings relates to the population near the hazard. Determine the number of inhabited structures within two miles of the MRS boundary and annotate the score that corresponds with the associated population near the known or suspected hazard.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
26 or more inhabited structures	There are 26 or more inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	5	5
16 to 25 inhabited structures	There are 16 to 25 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	4	
11 to 15 inhabited structures	There are 11 to 15 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	3	
6 to 10 inhabited structures	There are 6 to 10 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	2	
1 to 5 inhabited structures	There are 1 to 5 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	1	
0 inhabited structures	There are no inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	0	
POPULATION NEAR HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Near Hazard*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site. (SI Report, Section 2.4.3).

Table 8

EHE Module: Types of Activities/Structures Data Element Table

Directions: Below are five classifications of activities and/or inhabited structures near the hazard and their descriptions. Review the types of activities that occur and/or structures that are present within two miles of the MRS and annotate the score(s) that correspond with **all** the activities/structure classifications at the MRS.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Residential, educational, commercial, or subsistence	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with any of the following purposes: residential, educational, child care, critical assets (e.g., hospitals, fire and rescue, police stations, dams), hotels, commercial, shopping centers, playgrounds, community gathering areas, religious sites, or sites used for subsistence hunting, fishing, and gathering.	5	5
Parks and recreational areas	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with parks, nature preserves, or other recreational uses.	4	4
Agricultural, forestry	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with agriculture or forestry.	3	3
Industrial or warehousing	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with industrial activities or warehousing.	2	
No known or recurring activities	There are no known or recurring activities occurring up to two miles from the MRS's boundary or within the MRS's boundary.	1	
TYPES OF ACTIVITIES/STRUCTURES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Types of Activities/Structures*** classifications in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (SI Report, Section 2.4.3).

Table 9

EHE Module: Ecological and/or Cultural Resources Data Element Table

Directions: Below are four classifications of ecological and/or cultural resources and their descriptions. Review the types of resources present and annotate the score that corresponds with the ecological and/or cultural resource classifications at the MRS.

Note: The terms *ecological resources* and *cultural resources* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Ecological and cultural resources present	There are both ecological and cultural resources present on the MRS.	5	
Ecological resources present	There are ecological resources present on the MRS.	3	3
Cultural resources present	There are cultural resources present on the MRS.	3	
No ecological or cultural resources present	There are no ecological resources or cultural resources present on the MRS.	0	
ECOLOGICAL AND/OR CULTURAL RESOURCES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**3**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ecological and/or Cultural Resources*** classification in the space below.

The State Historic Preservation Office (SHPO), U.S. Forest Service (USFS), and the Oregon Department of Fish and Wildlife (ODFW) were contacted regarding cultural and natural resources. The SHPO indicated that no potential cultural/archaeological resources were within the currently identified MRS No. 5. The ODFW, Oregon Department of Agriculture, and the U.S. Fish and Wildlife Service were contacted regarding identification of any potentially impacted, threatened, or endangered species at Camp Adair. Two plant species are known to grow in the Camp Adair area. However, the agencies were not concerned with the proposed site activities because of the fact they were minimally invasive (2007 SI Report, Sections 2.4.7, 3.2.1 and 3.2.2). A small seasonal creek runs through the MRS.

Table 10

Determining the EHE Module Rating

DIRECTIONS:

1. From Tables 01 - 09, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **EHE Module Total** box below.

4. Identify the appropriate range for the **EHE Module Total** at right.

5. Identify the **EHE Module Rating** that corresponds to the range selected and record this rating in the **EHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

	Source	Score	Value
Explosive Hazard Factor Data Elements			
Munitions Type	Table 01	30	40
Source of Hazard	Table 02	10	
Accessibility Factor Data Elements			
Location of Munitions	Table 03	10	25
Ease of Access	Table 04	10	
Status of Property	Table 05	5	
Receptor Factor Data Elements			
Population Density	Table 06	1	14
Population Near Hazard	Table 07	5	
Types of Activities/Structures	Table 08	5	
Ecological and/or Cultural Resources	Table 09	3	
EHE MODULE TOTAL			**79**

EHE Module Total	EHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected Explosive Hazard
EHE MODULE RATING	**C**

Table 11

CHE Module: CWM Configuration Data Element Table

Directions: Below are seven classifications of CWM configuration and their descriptions. Annotate the score(s) that correspond to **all** CWM configurations known or suspected to be present at the MRS.

Note: The terms *CWM/UXO*, *CWM/DMM*, *physical evidence*, and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
CWM, explosive configuration either UXO or damaged DMM	The CWM known or suspected of being present at the MRS is (a) explosively configured CWM that are UXO (i.e. CWM/UXO), or (b) explosively configured CWM that are DMM (i.e. CWM/DMM) that have been damaged.	30	
CWM mixed with UXO	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged, or nonexplosively configured CWM/DMM, or CWM not configured as a munition, that are commingled with conventional munitions that are UXO.	25	
CWM, explosive configuration that are undamaged DMM	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged.	20	
CWM, not explosively configured or CWM, bulk container	The CWM known or suspected of being present at the MRS is (a) nonexplosively configured CWM/DMM, or (b) bulk CWM/DMM (e.g., ton container).	15	
CAIS K941 and CAIS K942	The CWM/DMM known or suspected of being present at the MRS is CAIS K941(toxic gas set M-1) or CAIS K942 (toxic gas set M-2/E11).	12	
CAIS (chemical agent identification sets)	Only CAIS, other than CAIS K941 and K942, are known or suspected of being present at the MRS.	10	
Evidence of no CWM	Following investigation, the physical evidence indicates that CWM are not present at the MRS, or the historical evidence indicates that CWM are not present at the MRS.	0	0
CWM CONFIGURATION	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**0**

DIRECTIONS: Document any MRS-specific data used in selecting the ***CWM Configuration*** classifications in the space below.

As there are no records of CWM munitions being used or found at MRA/MRS No. 5.

Table 20

Determining the CHE Module Rating

DIRECTIONS:

1. From Tables 11 - 19, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **CHE Module Total** box below.

	Source	Score	Value
CWM Hazard Factor Data Elements			
CWM Configuration	Table 11	0	0
Sources of CWM	Table 12	0	
Accessibility Factor Data Elements			
Location of CWM	Table 13	0	0
Ease of Access	Table 14	0	
Status of Property	Table 15	0	
Receptor Factor Data Elements			
Population Density	Table 16	0	0
Population Near Hazard	Table 17	0	
Types of Activities/Structures	Table 18	0	
Ecological and/or Cultural Resources	Table 19	0	
		CHE MODULE TOTAL	**0**

4. Identify the appropriate range for the **CHE Module Total** at right.

5. Identify the **CHE Module Rating** that corresponds to the range selected and record this rating in the **CHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

CHE Module Total	CHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected CWM Hazard
CHE MODULE RATING	**No Known or Suspected CWM Hazard**

Table 21

HHE Module: Groundwater Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's groundwater and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the groundwater, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
		Sum the Ratios	

CHF Scale	CHF Value	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**
100 > CHF >2	**M (Medium)**	
2 > CHF	**L (Low)**	

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the groundwater migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the groundwater is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in groundwater has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the groundwater to a potential point of exposure (possibly due to geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the groundwater receptors at the MRS.

Classification	Description	Value
Identified	There is a threatened water supply well downgradient of the source and the groundwater is a current source of drinking water or source of water for other beneficial uses such as irrigation/agriculture (equivalent to Class I or IIA aquifer).	H
Potential	There is no threatened water supply well downgradient of the source and the groundwater is currently or potentially usable for drinking water, irrigation, or agriculture (equivalent to Class I, IIA, or IIB aquifer).	M
Limited	There is no potentially threatened water supply well downgradient of the source and the groundwater is not considered a potential source of drinking water and is of limited beneficial use (equivalent to Class IIIA or IIIB aquifer, or where perched aquifer exists only).	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	
Place an "X" in the box to the right if there is no known or suspected Groundwater MC Hazard		**X**

Table 22

HHE Module: Surface Water - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface water, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Human Endpoint) MC Hazard	**X**

Table 23

HHE Module: Sediment - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the site's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for human endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		
CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).		

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	
Place an "X" in the box to the right if there is no known or suspected Sediment (Human Endpoint) MC Hazard		**X**

Table 24

HHE Module: Surface Water - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the surface water, select the box at the bottom of the table.

Note: Use either dissolved or total metals analyses.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
		Sum the Ratios	

CHF Scale	CHF Value	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**
100 > CHF >2	**M (Medium)**	
2 > CHF	**L (Low)**	

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Ecological Endpoint) MC Hazard	**X**

Table 25

HHE Module: Sediment - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Sediment (Ecological Endpoint) MC Hazard	**X**

Table 26

HHE Module: Surface Soil - Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface soil and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface soil, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface soil migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface soil is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface soil has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface soil to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface soil receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface soil to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface soil to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface soil to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	
Place an "X" in the box to the right if there is no known or suspected Surface Soil MC Hazard		**X**

Table 27

HHE Module: Supplemental Contaminant Hazard Factor Table

Contaminant Hazard Factor (CHF)

Directions: **Only use this table if there are more than five contaminants present at the MRS.** This is a supplemental table designed to hold information about contaminants that do not fit in the previous tables. Indicate the **media** in which these contaminants are present. Then record all **contaminants**, their **maximum concentrations** and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Calculate and record the **ratio** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** for each medium on the appropriate media-specific tables.

Note: For human exposures to groundwater and surface water, use dissolved, rather than total, metals analyses when both are available. Remember not to add ratios from different media.

Media	Contaminant [CAS No.]	Maximum Concentration	Units	Comparison Value	Units	Ratios
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
					SUBTOTAL FOR SURFACE SOIL	**0**
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
					SUBTOTAL FOR SEDIMENT	**0**
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
					SUBTOTAL FOR SURFACE WATER	**0**
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L	4.00	µg/L	0
Groundwater			µg/L		µg/L	
					SUBTOTAL FOR GROUNDWATER	**0**

Table 28

Determining the HHE Module Rating

DIRECTIONS:

1. Record the letter values (H, M, L) for the **Contaminant Hazard**, **Migration Pathway**, and **Receptor Factors** for the media (from Tables 21 - 26) in the corresponding boxes below.
2. Record the media's three-letter combinations in the **Three-Letter-Combination** boxes below (three-letter combinations are arranged from Hs to Ms to Ls).
3. Using the reference provided below, determine each medium's rating (A - G) and record the letter in the corresponding **Media Rating** box below.

Medium (Source)	Contaminant Hazard Factor Value	Migratory Pathway Factor Value	Receptor Factor Value	Three-Letter Combination (Hs-Ms-Ls)	Media Rating (A - G)
Table 21 - Groundwater					
Table 22 - Surface Water (Human Endpoint)					
Table 23 - Sediment (Human Endpoint)					
Table 24 - Surface Water (Ecological Endpoint)					
Table 25 - Sediment (Ecological Endpoint)					
Table 26 - Surface Soil					
			HHE MODULE RATING		**No Known or Suspected MC Hazard**

DIRECTIONS (Continued):

4. Select the single highest **Media Rating** (A is the highest; G is the lowest) and enter the letter in the **HHE Module Rating** box below.

HHE Ratings (for reference only)	
HHH	A
HHM	B
HHL	C
HMM	
HML	D
MMM	
HLL	E
MML	
MLL	F
LLL	G

NOTE: An alternative module rating may be assigned when a module letter rating is used when more information is needed to score one or more media, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

Alternative Module Ratings	
	Evaluation Pending
	No Longer Required
	No Known or Suspected MC Hazard

Table 29

MRS Priority

DIRECTIONS: In the chart below, enter the letter **rating** for each module recorded in Table 10 (EHE), Table 20 (CHE), and Table 28 (HHE). Enter the corresponding numerical **priority** for each module. If information to determine the module rating is not available, choose the appropriate alternative module rating. The MRS priority is the single highest priority; record this number in the **MRS or Alternative Priority** box at the bottom of the table.

NOTE: An MRS assigned Priority 1 has the highest relative priority; an MRS assigned Priority 8 has the lowest relative priority. Only an MRS with CWM known or suspected to be present can be assigned Priority 1; an MRS that has CWM known or suspected to be present cannot be assigned Priority 8.

EHE Rating	Priority	CHE Rating	Priority	HHE Rating	Priority
		A	1		
A	2	B	2	A	2
B	3	C	3	B	3
C	4	D	4	C	4
D	5	E	5	D	5
E	6	F	6	E	6
F	7	G	7	F	7
G	8			G	8
Evaluation Pending		Evaluation Pending		Evaluation Pending	
No Longer Required		No Longer Required		No Longer Required	
No Known or Suspected Explosive Hazard		No Known or Suspected CWM Hazard		No Known or Suspected MC Hazard	

Reference Table 10:		Reference Table 20:		Reference Table 28:	
EHE Module Rating	Priority	CHE Module Rating	Priority	HHE Module Rating	Priority
C	4	No Known or Suspected CWM Hazard	No Known or Suspected CWM Hazard	No Known or Suspected MC Hazard	No Known or Suspected MC Hazard

MRS or Alternative Priority	4

Table A

MRS Background Information

DIRECTIONS: Record the background information below for the MRS to be evaluated. Much of this information is available from DoD databases, such as RMIS. If the MRS is located on a FUDS property, the suitable FUDS property information should be substituted. In the MRS summary, briefly describe the UXO, DMM, or MC that are known or suspected to be present, the exposure setting (the MRS's physical environment), any other incidental non-munitions related contaminants found at the MRS (e.g., benzene, trichloroethylene), and any potentially exposed human and ecological receptors. Include a map of the MRS, if one is available.

Munitions Response Site (MRS) Name:	**MRS No. 6, Live Hand Grenade Court No. 129**
Component:	US Army
Installation/Property Name:	**Camp Adair/Adair Air Force Station**
Location (City, County, State):	Polk County, Oregon
UTM Coordinates (NAD83):	N 4954780.25, E 476911.76
Site Name (RMIS ID):	Live Hand Grenade Court No. 129 (F10OR002903R11)
Project Name (Project No.):	Formerly Used Defense Sites, Military Munitions Response Program Site Inspections at Multiple Sites (116188)
Date Information Entered/Updated:	31-May-2007
Point of Contact (Name/Phone):	William Graney/206-764-3494

Project Phase ("X" only one):									
		PA	**X**	**SI**		**RI**		**FS**		**RD**
		RA-C		**RIP**		**RA-O**		**RC**		**LTM**

Media Evaluated ("X" all that apply):				
		Groundwater (human receptor)	**X**	**Sediment (human receptor)**
	X	**Surface soil (human receptor)**		**Surface water (ecological receptor)**
	X	**Sediment (ecological receptor)**		**Surface water (human receptor)**

MRS Summary

MRS Description: Describe the munitions-related activities that occurred at the installation, the dates of operation, and the UXO, DMM (by type of munition, if known) or munitions constituents (by type, if known) known or suspected to be present):

MRS No. 6 consists of the Live Hand Grenade Court No. 129. The live hand grenade court was used to train troops in the use of explosive fragmentation grenades. Munitions used included MkII fragmentation hand grenades and M21 practice hand grenades. Potential contaminants include cast iron, TNT, and smokeless powder. The MRS is currently used for growing Christmas trees.

Description of Pathways for Human and Ecological Receptors:

The pathways evaluated with respect to MRS No. 6 are: terrestrial and streams/sediments for humans (agricultural workers and residents) and ecological (ingestion and uptake by wildlife and plants).

Description of Receptors (Human and Ecological):

Receptors in the area of MRS No. 6 include agricultural workers, residents, plants, and wildlife.

Table 1
EHE Module: Munitions Type Data Element Table

Directions: Below are eleven classifications of munitions and their descriptions. Annotate the score(s) that correspond with **all** munitions types known or suspected to be present at the MRS.

Note: The terms *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Sensitive	All UXO that are considered likely to function upon any interaction with exposed persons [e.g., submunitions, 40mm high-explosive (HE) grenades, white phosphorous (WP) munitions, high-explosive antitank (HEAT) munitions, and practice munitions with sensitive fuzes, but excluding all other practice munitions].	30	30
	All hand grenades containing energetic filler.		
	Bulk primary explosives, or mixtures of these with environmental media, such that the mixture poses an explosive hazard.		
High explosive (used or damaged)	All UXO containing a high-explosive filler (e.g., RDX, Composition B), that are not considered "sensitive."	25	
	All DMM containing a high-explosive filler that have been damaged by burning or detonation, or deteriorated to the point of instability.		
Pyrotechnic (used or damaged)	All UXO containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades).	20	
	All DMM containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades) that have been damaged by burning or detonation, or deteriorated to the point of instability.		
High explosive (unused)	All DMM containing a high-explosive filler that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	15	
Propellant	All UXO containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor).	15	
	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor) that are damaged by burning or detonation, or deteriorated to the point of instability.		
Bulk secondary high explosives, pyrotechnics, or propellant	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor), that are deteriorated.	10	
	Bulk secondary high explosives, pyrotechnic compositions, or propellant (not contained in a munition), or mixtures of these with environmental media such that the mixture poses an explosive hazard.		
Pyrotechnic (not used or damaged)	All DMM containing a pyrotechnic filler (i.e. red phosphorous), other than white phosphorous filler, that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	10	
Practice	All UXO that are practice munitions that are not associated with a sensitive fuze.	5	5
	All DMM that are practice munitions that are not associated with a sensitive fuze and that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.		
Riot control	All UXO or DMM containing a riot control agent filler (e.g., tear gas).	3	
Small arms	All used munitions or DMM that are categorized as small arms ammunition [Physical evidence or historical evidence that no other types of munitions (e.g., grenades, subcaliber training rockets, demolition charges) were used or are present on the MRS is required for selection of this category.].	2	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
MUNITIONS TYPE	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**30**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Munitions Type*** classifications in the space below.

The ASR Site Inspection team inspected the Live Hand Grenade Court No 129. The team did not report any MEC or munitions debris. Munitions used included MkII fragmentation hand grenades and M21 practice hand grenades. There have been reports of hand grenades being found at this MRS (2007 SI Report, Table 2-3).

Table 2

EHE Module: Source of Hazard Data Element Table

Directions: Below are eleven classifications describing sources of explosive hazards. Annotate the score(s) that correspond with **all** sources of explosive hazards known or suspected to be present at the MRS.

Note: The terms *former range* , *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Former range	The MRS is a former military range where munitions (including practice munitions with sensitive fuzes) have been used. Such areas include: impact or target areas, associated buffer and safety zones, firing points, and live-fire maneuver areas.	10	10
Former munitions treatment (i.e. OB/OD) unit	The MRS is a location where UXO or DMM (e.g., munitions, bulk explosives, bulk pyrotechnic, or bulk propellants) were burned or detonated for the purpose of treatment prior to disposal.	8	
Former practice munitions range	The MRS is a former military range on which only practice munitions without sensitive fuzes were used.	6	
Former maneuver area	The MRS is a former maneuver area where no munitions other than flares, simulators, smokes, and blanks were used. There must be evidence that no other munitions were used at the location to place an MRS into this category.	5	
Former burial pit or other disposal area	The MRS is a location where DMM were buried or disposed of (e.g., disposed of into a water body) without prior thermal treatment.	5	
Former industrial operating facilities	The MRS is a location that is a former munitions maintenance, manufacturing, or demilitarization facility.	4	
Former firing points	The MRS is a firing point, where the firing point is delineated as an MRS separate from the rest of a former military range.	4	
Former missile or air defense artillery emplacements	The MRS is a former missile defense or air defense artillery (ADA) emplacement not associated with a military range.	2	
Former storage or transfer points	The MRS is a location where munitions were stored or handled for transfer between different modes of transportation (e.g., rail to truck, truck to weapon system).	2	
Former small arms range	The MRS is a former military range where only small arms ammunition was used [There must be evidence that no other types of munitions (e.g., grenades) were used or are present to place an MRS iinto this category.].	1	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that no UXO or DMM are present, or there is historical evidence indicating that no UXO or DMM are present.	0	
SOURCE OF HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**10**

DIRECTIONS: Document any MRS-specific data used in selecting the **Source of Hazard** classifications in the space below.

MRS was used to train troops in the use of live hand grenades Munitions used included MkII fragmentation hand grenades and M21 practice hand grenades. There have been reports of MEC at this MRS (2007 SI Report, Table 2-3).

Table 3
EHE Module: Location of Munitions Data Element Table

Directions: Below are eight classifications of munitions locations and their descriptions. Annotate the score(s) that correspond with **all** locations where munitions are located or suspected of being found at the MRS.

Note: The terms *surface* , *subsurface* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Confirmed surface	Physical evidence indicates that there are UXO or DMM on the surface of the MRS. Historical evidence (e.g., a confirmed incident report or accident report) indicates there are UXO or DMM on the surface of the MRS.	25	
Confirmed subsurface, active	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM.	20	20
Confirmed subsurface, stable	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed.	15	
Suspected (physical evidence)	There is physical evidence (e.g., munitions debris, such fragments, penetrators, projectiles, shell casings, links, fins), other than the documented presence of UXO or DMM, indicating that UXO or DMM may be present at the MRS.	10	
Suspected (historical evidence)	There is historical evidence indicating that UXO or DMM may be present at the MRS.	5	5
Subsurface, physical constraint	There is physical or historical evidence indicating that UXO or DMM may be present in the subsurface, but there is a physical constraint (e.g., pavement, water depth over 120 feet) preventing direct access to the UXO or DMM.	2	
Small arms (regardless of location)	The presence of small arms ammunition is confirmed or suspected, regardless of other factors such as geological stability [There must be evidence that no other types of munitions (e.g., grenades) were used or are present at the MRS to place an MRS into this category.]	1	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
LOCATION OF MUNITIONS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 25).		**20**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Location of Munitions*** classifications in the space below.

MRS was used to train troops in the use of live hand grenades. Munitions used included MkII fragmentation hand grenades and M21 practice hand grenades. There have been reports of MEC at this MRS (2007 SI Report, Table 2-3).

Table 4
EHE Module: Ease of Access Data Element Table

Directions: Below are four classifications of barrier types that can surround an MRS and their descriptions. The barrier type is directly related to the ease of public access to any explosive materiel. Annotate the score that corresponds with the ease of access to the MRS.

Note: The term *barrier* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
No barrier	There is no barrier preventing access to any part of the MRS (i.e. all parts of the MRS are accessible).	10	10
Barrier to MRS access is incomplete	There is a barrier preventing access to parts of the MRS, but not the entire MRS.	8	
Barrier to MRS access is complete but not monitored	There is a barrier preventing access to all parts of the MRS, but there is no surveillance (e.g., by a guard) to ensure that the barrier is effectively preventing access to all parts of the MRS.	5	
Barrier to MRS access is complete and monitored	There is a barrier preventing access to all parts of the MRS, and there is active, continual surveillance (e.g., by a guard, video monitoring) to ensure that the barrier is effectively preventing access to all parts of the MRS.	0	
EASE OF ACCESS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**10**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ease of Access*** classification in the space below.

As of August 2006, there is no fencing or signage restricting or limiting access to the area by the general public (2007 SI Report, Section 4.2.3).

Table 5
EHE Module: Status of Property Data Element Table

Directions: Below are three classifications of the status of a property within the Department of Defense (DoD) and their descriptions. Annotate the score that corresponds with the status of property at the MRS.

Note: N/A

Classification	Description	Possible Score	Score
Non-DoD control	The MRS is at a location that is no longer owned by, leased to, or otherwise possessed or used by DoD. Examples are privately owned land or water bodies; land or water bodies owned or controlled by state, tribal, or local governments; and land or water bodies managed by other federal agencies.	5	5
Scheduled for transfer from DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD, and DoD plans to transfer that land or water body to the control of another entity (e.g., a state, tribal, or local government; a private party; another federal agency) within 3 years from the date the rule is applied.	3	
DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD. With respect to property that is leased or otherwise possessed, DoD must control access to the MRS 24 hours per day, every day of the calendar year.	0	
STATUS OF PROPERTY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Status of Property*** classification in the space below.

Camp Adair was acquired by the Army beginning in 1941. In 1946, the War Department declared Camp Adair surplus and was assigned to the War Assets Administration for disposition under the Surplus Property Act. In 1946, the property was transferred to the Department of Agriculture for sale by the Federal Land Bank. The property is currently owned by a private company. There is no controlled access to the MRS (2007 SI Report, Section 2.4.3).

Table 6
EHE Module: Population Density Data Element Table

Directions: Below are three classifications of population density and their descriptions. Determine the population density per square mile in the vicinity of the MRS and annotate the score that corresponds with the associated population density.

Note: If an MRS is located in more than one county, use the largest population density value among the counties. If the MRS is within or borders a city or town, use the population density for the city or town, rather than that of the county.

Classification	Description	Possible Score	Score
> 500 persons per square mile	There are more than 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	5	
100 - 500 persons per square mile	There are 100 to 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	3	
< 100 persons per square mile	There are fewer than 100 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	1	1
POPULATION DENSITY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**1**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Density*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 7
EHE Module: Population Near Hazard Data Element Table

Directions: Below are six classifications describing the number of inhabited structures near the MRS. The number of inhabited buildings relates to the population near the hazard. Determine the number of inhabited structures within two miles of the MRS boundary and annotate the score that corresponds with the associated population near the known or suspected hazard.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
26 or more inhabited structures	There are 26 or more inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	5	5
16 to 25 inhabited structures	There are 16 to 25 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	4	
11 to 15 inhabited structures	There are 11 to 15 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	3	
6 to 10 inhabited structures	There are 6 to 10 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	2	
1 to 5 inhabited structures	There are 1 to 5 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	1	
0 inhabited structures	There are no inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	0	
POPULATION NEAR HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Near Hazard*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 8

EHE Module: Types of Activities/Structures Data Element Table

Directions: Below are five classifications of activities and/or inhabited structures near the hazard and their descriptions. Review the types of activities that occur and/or structures that are present within two miles of the MRS and annotate the score(s) that correspond with **all** the activities/structure classifications at the MRS.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Residential, educational, commercial, or subsistence	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with any of the following purposes: residential, educational, child care, critical assets (e.g., hospitals, fire and rescue, police stations, dams), hotels, commercial, shopping centers, playgrounds, community gathering areas, religious sites, or sites used for subsistence hunting, fishing, and gathering.	5	5
Parks and recreational areas	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with parks, nature preserves, or other recreational uses.	4	4
Agricultural, forestry	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with agriculture or forestry.	3	3
Industrial or warehousing	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with industrial activities or warehousing.	2	
No known or recurring activities	There are no known or recurring activities occurring up to two miles from the MRS's boundary or within the MRS's boundary.	1	
TYPES OF ACTIVITIES/STRUCTURES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Types of Activities/Structures*** classifications in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 9

EHE Module: Ecological and/or Cultural Resources Data Element Table

Directions: Below are four classifications of ecological and/or cultural resources and their descriptions. Review the types of resources present and annotate the score that corresponds with the ecological and/or cultural resource classifications at the MRS.

Note: The terms *ecological resources* and *cultural resources* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Ecological and cultural resources present	There are both ecological and cultural resources present on the MRS.	5	
Ecological resources present	There are ecological resources present on the MRS.	3	3
Cultural resources present	There are cultural resources present on the MRS.	3	
No ecological or cultural resources present	There are no ecological resources or cultural resources present on the MRS.	0	
ECOLOGICAL AND/OR CULTURAL RESOURCES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**3**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ecological and/or Cultural Resources*** classification in the space below.

The State Historic Preservation Office (SHPO), U.S. Forest Service (USFS), and the Oregon Department of Fish and Wildlife (ODFW) were contacted regarding cultural and natural resources. The SHPO indicated that no potential cultural/archaeological resources were within the currently identified MRS No. 6. The ODFW, Oregon Department of Agriculture, and the U.S. Fish and Wildlife Service were contacted regarding identification of any potentially impacted, threatened, or endangered species at Camp Adair. Two plant species are known to grow in the Camp Adair area. However, the agencies were not concerned with the proposed site activities because of the fact they were minimally invasive (2007 SI Report, Sections 2.4.7, 3.2.1 and 3.2.2). There is a small creek that runs adjacent to the MRS.

Table 10

Determining the EHE Module Rating

DIRECTIONS:

1. From Tables 01 - 09, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **EHE Module Total** box below.

4. Identify the appropriate range for the **EHE Module Total** at right.

5. Identify the **EHE Module Rating** that corresponds to the range selected and record this rating in the **EHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

	Source	Score	Value
Explosive Hazard Factor Data Elements			
Munitions Type	Table 01	30	40
Source of Hazard	Table 02	10	
Accessibility Factor Data Elements			
Location of Munitions	Table 03	20	35
Ease of Access	Table 04	10	
Status of Property	Table 05	5	
Receptor Factor Data Elements			
Population Density	Table 06	1	14
Population Near Hazard	Table 07	5	
Types of Activities/Structures	Table 08	5	
Ecological and/or Cultural Resources	Table 09	3	
EHE MODULE TOTAL			**89**

EHE Module Total	EHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected Explosive Hazard
EHE MODULE RATING	**B**

Table 11

CHE Module: CWM Configuration Data Element Table

Directions: Below are seven classifications of CWM configuration and their descriptions. Annotate the score(s) that correspond to **all** CWM configurations known or suspected to be present at the MRS.

Note: The terms *CWM/UXO*, *CWM/DMM*, *physical evidence*, and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
CWM, explosive configuration either UXO or damaged DMM	The CWM known or suspected of being present at the MRS is (a) explosively configured CWM that are UXO (i.e. CWM/UXO), or (b) explosively configured CWM that are DMM (i.e. CWM/DMM) that have been damaged.	30	
CWM mixed with UXO	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged, or nonexplosively configured CWM/DMM, or CWM not configured as a munition, that are commingled with conventional munitions that are UXO.	25	
CWM, explosive configuration that are undamaged DMM	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged.	20	
CWM, not explosively configured or CWM, bulk container	The CWM known or suspected of being present at the MRS is (a) nonexplosively configured CWM/DMM, or (b) bulk CWM/DMM (e.g., ton container).	15	
CAIS K941 and CAIS K942	The CWM/DMM known or suspected of being present at the MRS is CAIS K941(toxic gas set M-1) or CAIS K942 (toxic gas set M-2/E11).	12	
CAIS (chemical agent identification sets)	Only CAIS, other than CAIS K941 and K942, are known or suspected of being present at the MRS.	10	
Evidence of no CWM	Following investigation, the physical evidence indicates that CWM are not present at the MRS, or the historical evidence indicates that CWM are not present at the MRS.	0	0
CWM CONFIGURATION	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**0**

DIRECTIONS: Document any MRS-specific data used in selecting the ***CWM Configuration*** classifications in the space below.

As there are no records of CWM munitions being used or found at MRA/MRS No. 6.

Table 20

Determining the CHE Module Rating

DIRECTIONS:

1. From Tables 11 - 19, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **CHE Module Total** box below.

	Source	Score	Value
CWM Hazard Factor Data Elements			
CWM Configuration	Table 11	0	0
Sources of CWM	Table 12	0	
Accessibility Factor Data Elements			
Location of CWM	Table 13	0	0
Ease of Access	Table 14	0	
Status of Property	Table 15	0	
Receptor Factor Data Elements			
Population Density	Table 16	0	0
Population Near Hazard	Table 17	0	
Types of Activities/Structures	Table 18	0	
Ecological and/or Cultural Resources	Table 19	0	
		CHE MODULE TOTAL	**0**

4. Identify the appropriate range for the **CHE Module Total** at right.

5. Identify the **CHE Module Rating** that corresponds to the range selected and record this rating in the **CHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

CHE Module Total	CHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected CWM Hazard
CHE MODULE RATING	**No Known or Suspected CWM Hazard**

Table 21

HHE Module: Groundwater Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's groundwater and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the groundwater, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
		Sum the Ratios	

CHF Scale	CHF Value
CHF > 100	H (High)
100 > CHF >2	M (Medium)
2 > CHF	L (Low)

CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the groundwater migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the groundwater is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in groundwater has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the groundwater to a potential point of exposure (possibly due to geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the groundwater receptors at the MRS.

Classification	Description	Value
Identified	There is a threatened water supply well downgradient of the source and the groundwater is a current source of drinking water or source of water for other beneficial uses such as irrigation/agriculture (equivalent to Class I or IIA aquifer).	H
Potential	There is no threatened water supply well downgradient of the source and the groundwater is currently or potentially usable for drinking water, irrigation, or agriculture (equivalent to Class I, IIA, or IIB aquifer).	M
Limited	There is no potentially threatened water supply well downgradient of the source and the groundwater is not considered a potential source of drinking water and is of limited beneficial use (equivalent to Class IIIA or IIIB aquifer, or where perched aquifer exists only).	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Groundwater MC Hazard	**X**

Table 22

HHE Module: Surface Water - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface water, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Human Endpoint) MC Hazard	**X**

Table 23

HHE Module: Sediment - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the site's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for human endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		
CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).		

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	
Place an "X" in the box to the right if there is no known or suspected Sediment (Human Endpoint) MC Hazard		**X**

Table 24

HHE Module: Surface Water - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the surface water, select the box at the bottom of the table.

Note: Use either dissolved or total metals analyses.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		
CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).		

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Ecological Endpoint) MC Hazard	**X**

Table 25

HHE Module: Sediment - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Sediment (Ecological Endpoint) MC Hazard	**X**

Table 26

HHE Module: Surface Soil - Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface soil and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface soil, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface soil migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface soil is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface soil has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface soil to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface soil receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface soil to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface soil to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface soil to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Soil MC Hazard	**X**

Table 27

HHE Module: Supplemental Contaminant Hazard Factor Table

Contaminant Hazard Factor (CHF)

Directions: **Only use this table if there are more than five contaminants present at the MRS.** This is a supplemental table designed to hold information about contaminants that do not fit in the previous tables. Indicate the **media** in which these contaminants are present. Then record all **contaminants**, their **maximum concentrations** and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Calculate and record the **ratio** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** for each medium on the appropriate media-specific tables.

Note: For human exposures to groundwater and surface water, use dissolved, rather than total, metals analyses when both are available. Remember not to add ratios from different media.

Media	Contaminant [CAS No.]	Maximum Concentration	Units	Comparison Value	Units	Ratios
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
					SUBTOTAL FOR SURFACE SOIL	**0**
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
					SUBTOTAL FOR SEDIMENT	**0**
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
					SUBTOTAL FOR SURFACE WATER	**0**
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L	4.00	µg/L	0
Groundwater			µg/L		µg/L	
					SUBTOTAL FOR GROUNDWATER	**0**

Table 28

Determining the HHE Module Rating

DIRECTIONS:

1. Record the letter values (H, M, L) for the **Contaminant Hazard**, **Migration Pathway**, and **Receptor Factors** for the media (from Tables 21 - 26) in the corresponding boxes below.
2. Record the media's three-letter combinations in the **Three-Letter-Combination** boxes below (three-letter combinations are arranged from Hs to Ms to Ls).
3. Using the reference provided below, determine each medium's rating (A - G) and record the letter in the corresponding **Media Rating** box below.

Medium (Source)	Contaminant Hazard Factor Value	Migratory Pathway Factor Value	Receptor Factor Value	Three-Letter Combination (Hs-Ms-Ls)	Media Rating (A - G)
Table 21 - Groundwater					
Table 22 - Surface Water (Human Endpoint)					
Table 23 - Sediment (Human Endpoint)					
Table 24 - Surface Water (Ecological Endpoint)					
Table 25 - Sediment (Ecological Endpoint)					
Table 26 - Surface Soil					
			HHE MODULE RATING		**No Known or Suspected MC Hazard**

DIRECTIONS (Continued):

4. Select the single highest **Media Rating** (A is the highest; G is the lowest) and enter the letter in the **HHE Module Rating** box below.

HHE Ratings (for reference only)	
HHH	A
HHM	B
HHL	C
HMM	
HML	D
MMM	
HLL	E
MML	
MLL	F
LLL	G

NOTE: An alternative module rating may be assigned when a module letter rating is used when more information is needed to score one or more media, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

Alternative Module Ratings	
	Evaluation Pending
	No Longer Required
	No Known or Suspected MC Hazard

Table 29

MRS Priority

DIRECTIONS: In the chart below, enter the letter **rating** for each module recorded in Table 10 (EHE), Table 20 (CHE), and Table 28 (HHE). Enter the corresponding numerical **priority** for each module. If information to determine the module rating is not available, choose the appropriate alternative module rating. The MRS priority is the single highest priority; record this number in the **MRS or Alternative Priority** box at the bottom of the table.

NOTE: An MRS assigned Priority 1 has the highest relative priority; an MRS assigned Priority 8 has the lowest relative priority. Only an MRS with CWM known or suspected to be present can be assigned Priority 1; an MRS that has CWM known or suspected to be present cannot be assigned Priority 8.

EHE Rating	Priority	CHE Rating	Priority	HHE Rating	Priority
		A	1		
A	2	B	2	A	2
B	3	C	3	B	3
C	4	D	4	C	4
D	5	E	5	D	5
E	6	F	6	E	6
F	7	G	7	F	7
G	8			G	8
Evaluation Pending		Evaluation Pending		Evaluation Pending	
No Longer Required		No Longer Required		No Longer Required	
No Known or Suspected Explosive Hazard		No Known or Suspected CWM Hazard		No Known or Suspected MC Hazard	

Reference Table 10:		Reference Table 20:		Reference Table 28:	
EHE Module Rating	Priority	CHE Module Rating	Priority	HHE Module Rating	Priority
B	3	No Known or Suspected CWM Hazard	No Known or Suspected CWM Hazard	No Known or Suspected MC Hazard	No Known or Suspected MC Hazard

MRS or Alternative Priority	3

Table A

MRS Background Information

DIRECTIONS: Record the background information below for the MRS to be evaluated. Much of this information is available from DoD databases, such as RMIS. If the MRS is located on a FUDS property, the suitable FUDS property information should be substituted. In the MRS summary, briefly describe the UXO, DMM, or MC that are known or suspected to be present, the exposure setting (the MRS's physical environment), any other incidental non-munitions related contaminants found at the MRS (e.g., benzene, trichloroethylene), and any potentially exposed human and ecological receptors. Include a map of the MRS, if one is available.

Munitions Response Site (MRS) Name:	**MRS No. 7, West Live Hand Grenade Court**
Component:	US Army
Installation/Property Name:	**Camp Adair/Adair Air Force Station**
Location (City, County, State):	Polk County, Oregon
UTM Coordinates (NAD83):	N 4954201.13, E 475801.27
Site Name (RMIS ID):	West Live Hand Grenade Court (F10OR002903R12)
Project Name (Project No.):	Formerly Used Defense Sites, Military Munitions Response Program Site Inspections at Multiple Sites (116188)
Date Information Entered/Updated:	31-May-2007
Point of Contact (Name/Phone):	William Graney/206-764-3494

Project Phase ("X" only one):									
		PA	**X**	**SI**		**RI**		**FS**		**RD**
		RA-C		**RIP**		**RA-O**		**RC**		**LTM**

Media Evaluated ("X" all that apply):				
		Groundwater (human receptor)	**X**	**Sediment (human receptor)**
	X	**Surface soil (human receptor)**		**Surface water (ecological receptor)**
	X	**Sediment (ecological receptor)**		**Surface water (human receptor)**

MRS Summary

MRS Description: Describe the munitions-related activities that occurred at the installation, the dates of operation, and the UXO, DMM (by type of munition, if known) or munitions constituents (by type, if known) known or suspected to be present):

MRS No. 7 consists of the West Live Hand Grenade Court. The live hand grenade court was used to train troops in the use of explosive fragmentation grenades. Munitions used included MkII fragmentation hand grenades and M21 practice hand grenades. Potential contaminants include cast iron, TNT, and smokeless powder. The MRS is currently used for growing growing agricultural crops.

Description of Pathways for Human and Ecological Receptors:

The pathways evaluated with respect to MRS No. 7 are: terrestrial and streams/sediments for humans (agricultural workers and residents) and ecological (ingestion and uptake by wildlife and plants).

Description of Receptors (Human and Ecological):

Receptors in the area of MRS No. 7 include agricultural workers, residents, plants, and wildlife.

Table 1
EHE Module: Munitions Type Data Element Table

Directions: Below are eleven classifications of munitions and their descriptions. Annotate the score(s) that correspond with **all** munitions types known or suspected to be present at the MRS.

Note: The terms *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Sensitive	All UXO that are considered likely to function upon any interaction with exposed persons [e.g., submunitions, 40mm high-explosive (HE) grenades, white phosphorous (WP) munitions, high-explosive antitank (HEAT) munitions, and practice munitions with sensitive fuzes, but excluding all other practice munitions].	30	30
	All hand grenades containing energetic filler.		
	Bulk primary explosives, or mixtures of these with environmental media, such that the mixture poses an explosive hazard.		
High explosive (used or damaged)	All UXO containing a high-explosive filler (e.g., RDX, Composition B), that are not considered "sensitive."	25	
	All DMM containing a high-explosive filler that have been damaged by burning or detonation, or deteriorated to the point of instability.		
Pyrotechnic (used or damaged)	All UXO containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades).	20	
	All DMM containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades) that have been damaged by burning or detonation, or deteriorated to the point of instability.		
High explosive (unused)	All DMM containing a high-explosive filler that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	15	
Propellant	All UXO containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor).	15	
	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor) that are damaged by burning or detonation, or deteriorated to the point of instability.		
Bulk secondary high explosives, pyrotechnics, or propellant	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor), that are deteriorated.	10	
	Bulk secondary high explosives, pyrotechnic compositions, or propellant (not contained in a munition), or mixtures of these with environmental media such that the mixture poses an explosive hazard.		
Pyrotechnic (not used or damaged)	All DMM containing a pyrotechnic filler (i.e. red phosphorous), other than white phosphorous filler, that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	10	
Practice	All UXO that are practice munitions that are not associated with a sensitive fuze.	5	5
	All DMM that are practice munitions that are not associated with a sensitive fuze and that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.		
Riot control	All UXO or DMM containing a riot control agent filler (e.g., tear gas).	3	
Small arms	All used munitions or DMM that are categorized as small arms ammunition [Physical evidence or historical evidence that no other types of munitions (e.g., grenades, subcaliber training rockets, demolition charges) were used or are present on the MRS is required for selection of this category.].	2	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
MUNITIONS TYPE	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**30**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Munitions Type*** classifications in the space below.

The ASR Site Inspection team inspected the West Live Hand Grenade Court. The team did not report any MEC or munitions debris. Munitions used included MkII fragmentation hand grenades and M21 practice hand grenades. There have been reports of hand grenades being found at this MRS (2007 SI Report, Table 2-3). No MEC or munitions debris was identified during the SI.

Table 2

EHE Module: Source of Hazard Data Element Table

Directions: Below are eleven classifications describing sources of explosive hazards. Annotate the score(s) that correspond with **all** sources of explosive hazards known or suspected to be present at the MRS.

Note: The terms *former range* , *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Former range	The MRS is a former military range where munitions (including practice munitions with sensitive fuzes) have been used. Such areas include: impact or target areas, associated buffer and safety zones, firing points, and live-fire maneuver areas.	10	10
Former munitions treatment (i.e. OB/OD) unit	The MRS is a location where UXO or DMM (e.g., munitions, bulk explosives, bulk pyrotechnic, or bulk propellants) were burned or detonated for the purpose of treatment prior to disposal.	8	
Former practice munitions range	The MRS is a former military range on which only practice munitions without sensitive fuzes were used.	6	
Former maneuver area	The MRS is a former maneuver area where no munitions other than flares, simulators, smokes, and blanks were used. There must be evidence that no other munitions were used at the location to place an MRS into this category.	5	
Former burial pit or other disposal area	The MRS is a location where DMM were buried or disposed of (e.g., disposed of into a water body) without prior thermal treatment.	5	
Former industrial operating facilities	The MRS is a location that is a former munitions maintenance, manufacturing, or demilitarization facility.	4	
Former firing points	The MRS is a firing point, where the firing point is delineated as an MRS separate from the rest of a former military range.	4	
Former missile or air defense artillery emplacements	The MRS is a former missile defense or air defense artillery (ADA) emplacement not associated with a military range.	2	
Former storage or transfer points	The MRS is a location where munitions were stored or handled for transfer between different modes of transportation (e.g., rail to truck, truck to weapon system).	2	
Former small arms range	The MRS is a former military range where only small arms ammunition was used [There must be evidence that no other types of munitions (e.g., grenades) were used or are present to place an MRS iinto this category.].	1	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that no UXO or DMM are present, or there is historical evidence indicating that no UXO or DMM are present.	0	
SOURCE OF HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**10**

DIRECTIONS: Document any MRS-specific data used in selecting the **Source of Hazard** classifications in the space below.

MRS was used to train troops in the use of live hand grenades. Munitions used included MkII fragmentation hand grenades and M21 practice hand grenades. There have been reports of MEC at this MRS (2007 SI Report, Table 2-3).

Table 3
EHE Module: Location of Munitions Data Element Table

Directions: Below are eight classifications of munitions locations and their descriptions. Annotate the score(s) that correspond with **all** locations where munitions are located or suspected of being found at the MRS.

Note: The terms *surface* , *subsurface* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Confirmed surface	Physical evidence indicates that there are UXO or DMM on the surface of the MRS. Historical evidence (e.g., a confirmed incident report or accident report) indicates there are UXO or DMM on the surface of the MRS.	25	
Confirmed subsurface, active	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM.	20	20
Confirmed subsurface, stable	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed.	15	
Suspected (physical evidence)	There is physical evidence (e.g., munitions debris, such fragments, penetrators, projectiles, shell casings, links, fins), other than the documented presence of UXO or DMM, indicating that UXO or DMM may be present at the MRS.	10	
Suspected (historical evidence)	There is historical evidence indicating that UXO or DMM may be present at the MRS.	5	5
Subsurface, physical constraint	There is physical or historical evidence indicating that UXO or DMM may be present in the subsurface, but there is a physical constraint (e.g., pavement, water depth over 120 feet) preventing direct access to the UXO or DMM.	2	
Small arms (regardless of location)	The presence of small arms ammunition is confirmed or suspected, regardless of other factors such as geological stability [There must be evidence that no other types of munitions (e.g., grenades) were used or are present at the MRS to place an MRS into this category.]	1	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
LOCATION OF MUNITIONS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 25).		**20**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Location of Munitions*** classifications in the space below.

MRS was used to train troops in the use of live hand grenades. Munitions used included MkII fragmentation hand grenades and M21 practice hand grenades. There have been reports of MEC at this MRS (2007 SI Report, Table 2-3).

Table 4
EHE Module: Ease of Access Data Element Table

Directions: Below are four classifications of barrier types that can surround an MRS and their descriptions. The barrier type is directly related to the ease of public access to any explosive materiel. Annotate the score that corresponds with the ease of access to the MRS.

Note: The term *barrier* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
No barrier	There is no barrier preventing access to any part of the MRS (i.e. all parts of the MRS are accessible).	10	10
Barrier to MRS access is incomplete	There is a barrier preventing access to parts of the MRS, but not the entire MRS.	8	
Barrier to MRS access is complete but not monitored	There is a barrier preventing access to all parts of the MRS, but there is no surveillance (e.g., by a guard) to ensure that the barrier is effectively preventing access to all parts of the MRS.	5	
Barrier to MRS access is complete and monitored	There is a barrier preventing access to all parts of the MRS, and there is active, continual surveillance (e.g., by a guard, video monitoring) to ensure that the barrier is effectively preventing access to all parts of the MRS.	0	
EASE OF ACCESS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**10**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ease of Access*** classification in the space below.

As of August 2006, there is no fencing or signage restricting or limiting access to the area by the general public (2007 SI Report, Section 4.2.3).

Table 5
EHE Module: Status of Property Data Element Table

Directions: Below are three classifications of the status of a property within the Department of Defense (DoD) and their descriptions. Annotate the score that corresponds with the status of property at the MRS.

Note: N/A

Classification	Description	Possible Score	Score
Non-DoD control	The MRS is at a location that is no longer owned by, leased to, or otherwise possessed or used by DoD. Examples are privately owned land or water bodies; land or water bodies owned or controlled by state, tribal, or local governments; and land or water bodies managed by other federal agencies.	5	5
Scheduled for transfer from DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD, and DoD plans to transfer that land or water body to the control of another entity (e.g., a state, tribal, or local government; a private party; another federal agency) within 3 years from the date the rule is applied.	3	
DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD. With respect to property that is leased or otherwise possessed, DoD must control access to the MRS 24 hours per day, every day of the calendar year.	0	
STATUS OF PROPERTY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Status of Property*** classification in the space below.

Camp Adair was acquired by the Army beginning in 1941. In 1946, the War Department declared Camp Adair surplus and was assigned to the War Assets Administration for disposition under the Surplus Property Act. In 1946, the property was transferred to the Department of Agriculture for sale by the Federal Land Bank. The property is currently owned by a private citizen. There is no controlled access to the MRS (2007 SI Report, Section 4.2.3).

Table 6
EHE Module: Population Density Data Element Table

Directions: Below are three classifications of population density and their descriptions. Determine the population density per square mile in the vicinity of the MRS and annotate the score that corresponds with the associated population density.

Note: If an MRS is located in more than one county, use the largest population density value among the counties. If the MRS is within or borders a city or town, use the population density for the city or town, rather than that of the county.

Classification	Description	Possible Score	Score
> 500 persons per square mile	There are more than 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	5	
100 - 500 persons per square mile	There are 100 to 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	3	
< 100 persons per square mile	There are fewer than 100 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	1	1
POPULATION DENSITY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**1**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Density*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 7
EHE Module: Population Near Hazard Data Element Table

Directions: Below are six classifications describing the number of inhabited structures near the MRS. The number of inhabited buildings relates to the population near the hazard. Determine the number of inhabited structures within two miles of the MRS boundary and annotate the score that corresponds with the associated population near the known or suspected hazard.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
26 or more inhabited structures	There are 26 or more inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	5	5
16 to 25 inhabited structures	There are 16 to 25 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	4	
11 to 15 inhabited structures	There are 11 to 15 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	3	
6 to 10 inhabited structures	There are 6 to 10 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	2	
1 to 5 inhabited structures	There are 1 to 5 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	1	
0 inhabited structures	There are no inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	0	
POPULATION NEAR HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Near Hazard*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 8

EHE Module: Types of Activities/Structures Data Element Table

Directions: Below are five classifications of activities and/or inhabited structures near the hazard and their descriptions. Review the types of activities that occur and/or structures that are present within two miles of the MRS and annotate the score(s) that correspond with **all** the activities/structure classifications at the MRS.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Residential, educational, commercial, or subsistence	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with any of the following purposes: residential, educational, child care, critical assets (e.g., hospitals, fire and rescue, police stations, dams), hotels, commercial, shopping centers, playgrounds, community gathering areas, religious sites, or sites used for subsistence hunting, fishing, and gathering.	5	5
Parks and recreational areas	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with parks, nature preserves, or other recreational uses.	4	4
Agricultural, forestry	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with agriculture or forestry.	3	3
Industrial or warehousing	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with industrial activities or warehousing.	2	
No known or recurring activities	There are no known or recurring activities occurring up to two miles from the MRS's boundary or within the MRS's boundary.	1	
TYPES OF ACTIVITIES/STRUCTURES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Types of Activities/Structures*** classifications in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 9

EHE Module: Ecological and/or Cultural Resources Data Element Table

Directions: Below are four classifications of ecological and/or cultural resources and their descriptions. Review the types of resources present and annotate the score that corresponds with the ecological and/or cultural resource classifications at the MRS.

Note: The terms *ecological resources* and *cultural resources* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Ecological and cultural resources present	There are both ecological and cultural resources present on the MRS.	5	
Ecological resources present	There are ecological resources present on the MRS.	3	
Cultural resources present	There are cultural resources present on the MRS.	3	
No ecological or cultural resources present	There are no ecological resources or cultural resources present on the MRS.	0	0
ECOLOGICAL AND/OR CULTURAL RESOURCES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**0**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ecological and/or Cultural Resources*** classification in the space below.

The State Historic Preservation Office (SHPO), U.S. Forest Service (USFS), and the Oregon Department of Fish and Wildlife (ODFW) were contacted regarding cultural and natural resources. The SHPO indicated that no potential cultural/archaeological resources were within the currently identified MRS No. 7. The ODFW, Oregon Department of Agriculture, and the U.S. Fish and Wildlife Service were contacted regarding identification of any potentially impacted, threatened, or endangered species at Camp Adair. Two plant species are known to grow in the Camp Adair area. However, the agencies were not concerned with the proposed site activities because of the fact they were minimally invasive (2007 SI Report, Sections 2.4.7, 3.2.1 and 3.2.2). There are no ecological sentive areas in the MRS.

Table 10

Determining the EHE Module Rating

DIRECTIONS:

1. From Tables 01 - 09, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **EHE Module Total** box below.

4. Identify the appropriate range for the **EHE Module Total** at right.

5. Identify the **EHE Module Rating** that corresponds to the range selected and record this rating in the **EHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

	Source	Score	Value
Explosive Hazard Factor Data Elements			
Munitions Type	Table 01	30	40
Source of Hazard	Table 02	10	
Accessibility Factor Data Elements			
Location of Munitions	Table 03	20	35
Ease of Access	Table 04	10	
Status of Property	Table 05	5	
Receptor Factor Data Elements			
Population Density	Table 06	1	11
Population Near Hazard	Table 07	5	
Types of Activities/Structures	Table 08	5	
Ecological and/or Cultural Resources	Table 09	0	
EHE MODULE TOTAL			**86**

EHE Module Total	EHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected Explosive Hazard
EHE MODULE RATING	**B**

Table 11

CHE Module: CWM Configuration Data Element Table

Directions: Below are seven classifications of CWM configuration and their descriptions. Annotate the score(s) that correspond to **all** CWM configurations known or suspected to be present at the MRS.

Note: The terms *CWM/UXO*, *CWM/DMM*, *physical evidence*, and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
CWM, explosive configuration either UXO or damaged DMM	The CWM known or suspected of being present at the MRS is (a) explosively configured CWM that are UXO (i.e. CWM/UXO), or (b) explosively configured CWM that are DMM (i.e. CWM/DMM) that have been damaged.	30	
CWM mixed with UXO	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged, or nonexplosively configured CWM/DMM, or CWM not configured as a munition, that are commingled with conventional munitions that are UXO.	25	
CWM, explosive configuration that are undamaged DMM	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged.	20	
CWM, not explosively configured or CWM, bulk container	The CWM known or suspected of being present at the MRS is (a) nonexplosively configured CWM/DMM, or (b) bulk CWM/DMM (e.g., ton container).	15	
CAIS K941 and CAIS K942	The CWM/DMM known or suspected of being present at the MRS is CAIS K941(toxic gas set M-1) or CAIS K942 (toxic gas set M-2/E11).	12	
CAIS (chemical agent identification sets)	Only CAIS, other than CAIS K941 and K942, are known or suspected of being present at the MRS.	10	
Evidence of no CWM	Following investigation, the physical evidence indicates that CWM are not present at the MRS, or the historical evidence indicates that CWM are not present at the MRS.	0	0
CWM CONFIGURATION	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**0**

DIRECTIONS: Document any MRS-specific data used in selecting the ***CWM Configuration*** classifications in the space below.

As there are no records of CWM munitions being used or found at MRA/MRS No. 7.

Table 20

Determining the CHE Module Rating

DIRECTIONS:

1. From Tables 11 - 19, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **CHE Module Total** box below.

	Source	Score	Value
CWM Hazard Factor Data Elements			
CWM Configuration	Table 11	0	0
Sources of CWM	Table 12	0	
Accessibility Factor Data Elements			
Location of CWM	Table 13	0	0
Ease of Access	Table 14	0	
Status of Property	Table 15	0	
Receptor Factor Data Elements			
Population Density	Table 16	0	0
Population Near Hazard	Table 17	0	
Types of Activities/Structures	Table 18	0	
Ecological and/or Cultural Resources	Table 19	0	
		CHE MODULE TOTAL	**0**

4. Identify the appropriate range for the **CHE Module Total** at right.

5. Identify the **CHE Module Rating** that corresponds to the range selected and record this rating in the **CHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

CHE Module Total	CHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected CWM Hazard
CHE MODULE RATING	**No Known or Suspected CWM Hazard**

Table 21

HHE Module: Groundwater Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's groundwater and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the groundwater, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
		Sum the Ratios	

CHF Scale	CHF Value
CHF > 100	**H (High)**
100 > CHF >2	**M (Medium)**
2 > CHF	**L (Low)**

CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the groundwater migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the groundwater is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in groundwater has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the groundwater to a potential point of exposure (possibly due to geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the groundwater receptors at the MRS.

Classification	Description	Value
Identified	There is a threatened water supply well downgradient of the source and the groundwater is a current source of drinking water or source of water for other beneficial uses such as irrigation/agriculture (equivalent to Class I or IIA aquifer).	H
Potential	There is no threatened water supply well downgradient of the source and the groundwater is currently or potentially usable for drinking water, irrigation, or agriculture (equivalent to Class I, IIA, or IIB aquifer).	M
Limited	There is no potentially threatened water supply well downgradient of the source and the groundwater is not considered a potential source of drinking water and is of limited beneficial use (equivalent to Class IIIA or IIIB aquifer, or where perched aquifer exists only).	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	
	Place an "X" in the box to the right if there is no known or suspected Groundwater MC Hazard	**X**

Table 22

HHE Module: Surface Water - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface water, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Human Endpoint) MC Hazard	**X**

Table 23

HHE Module: Sediment - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the site's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for human endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		
CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).		

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	
Place an "X" in the box to the right if there is no known or suspected Sediment (Human Endpoint) MC Hazard		**X**

Table 24

HHE Module: Surface Water - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the surface water, select the box at the bottom of the table.

Note: Use either dissolved or total metals analyses.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Ecological Endpoint) MC Hazard	**X**

Table 25

HHE Module: Sediment - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Sediment (Ecological Endpoint) MC Hazard	**X**

Table 26

HHE Module: Surface Soil - Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface soil and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface soil, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface soil migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface soil is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface soil has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface soil to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface soil receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface soil to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface soil to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface soil to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Soil MC Hazard	**X**

Table 27

HHE Module: Supplemental Contaminant Hazard Factor Table

Contaminant Hazard Factor (CHF)

Directions: **Only use this table if there are more than five contaminants present at the MRS.** This is a supplemental table designed to hold information about contaminants that do not fit in the previous tables. Indicate the **media** in which these contaminants are present. Then record all **contaminants**, their **maximum concentrations** and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Calculate and record the **ratio** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** for each medium on the appropriate media-specific tables.

Note: For human exposures to groundwater and surface water, use dissolved, rather than total, metals analyses when both are available. Remember not to add ratios from different media.

Media	Contaminant [CAS No.]	Maximum Concentration	Units	Comparison Value	Units	Ratios
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
				SUBTOTAL FOR SURFACE SOIL		**0**
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
				SUBTOTAL FOR SEDIMENT		**0**
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
				SUBTOTAL FOR SURFACE WATER		**0**
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L	4.00	µg/L	0
Groundwater			µg/L		µg/L	
				SUBTOTAL FOR GROUNDWATER		**0**

Table 28

Determining the HHE Module Rating

DIRECTIONS:

1. Record the letter values (H, M, L) for the **Contaminant Hazard**, **Migration Pathway**, and **Receptor Factors** for the media (from Tables 21 - 26) in the corresponding boxes below.
2. Record the media's three-letter combinations in the **Three-Letter-Combination** boxes below (three-letter combinations are arranged from Hs to Ms to Ls).
3. Using the reference provided below, determine each medium's rating (A - G) and record the letter in the corresponding **Media Rating** box below.

Medium (Source)	Contaminant Hazard Factor Value	Migratory Pathway Factor Value	Receptor Factor Value	Three-Letter Combination (Hs-Ms-Ls)	Media Rating (A - G)
Table 21 - Groundwater					
Table 22 - Surface Water (Human Endpoint)					
Table 23 - Sediment (Human Endpoint)					
Table 24 - Surface Water (Ecological Endpoint)					
Table 25 - Sediment (Ecological Endpoint)					
Table 26 - Surface Soil					
			HHE MODULE RATING		**No Known or Suspected MC Hazard**

DIRECTIONS (Continued):

4. Select the single highest **Media Rating** (A is the highest; G is the lowest) and enter the letter in the **HHE Module Rating** box below.

HHE Ratings (for reference only)	
HHH	A
HHM	B
HHL	C
HMM	
HML	D
MMM	
HLL	E
MML	
MLL	F
LLL	G

NOTE: An alternative module rating may be assigned when a module letter rating is used when more information is needed to score one or more media, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

Alternative Module Ratings	
	Evaluation Pending
	No Longer Required
	No Known or Suspected MC Hazard

Table 29

MRS Priority

DIRECTIONS: In the chart below, enter the letter **rating** for each module recorded in Table 10 (EHE), Table 20 (CHE), and Table 28 (HHE). Enter the corresponding numerical **priority** for each module. If information to determine the module rating is not available, choose the appropriate alternative module rating. The MRS priority is the single highest priority; record this number in the **MRS or Alternative Priority** box at the bottom of the table.

NOTE: An MRS assigned Priority 1 has the highest relative priority; an MRS assigned Priority 8 has the lowest relative priority. Only an MRS with CWM known or suspected to be present can be assigned Priority 1; an MRS that has CWM known or suspected to be present cannot be assigned Priority 8.

EHE Rating	Priority	CHE Rating	Priority	HHE Rating	Priority
		A	1		
A	2	B	2	A	2
B	3	C	3	B	3
C	4	D	4	C	4
D	5	E	5	D	5
E	6	F	6	E	6
F	7	G	7	F	7
G	8			G	8
Evaluation Pending		Evaluation Pending		Evaluation Pending	
No Longer Required		No Longer Required		No Longer Required	
No Known or Suspected Explosive Hazard		No Known or Suspected CWM Hazard		No Known or Suspected MC Hazard	

Reference Table 10:		Reference Table 20:		Reference Table 28:	
EHE Module Rating	Priority	CHE Module Rating	Priority	HHE Module Rating	Priority
B	3	No Known or Suspected CWM Hazard	No Known or Suspected CWM Hazard	No Known or Suspected MC Hazard	No Known or Suspected MC Hazard

MRS or Alternative Priority	3

Table A

MRS Background Information

DIRECTIONS: Record the background information below for the MRS to be evaluated. Much of this information is available from DoD databases, such as RMIS. If the MRS is located on a FUDS property, the suitable FUDS property information should be substituted. In the MRS summary, briefly describe the UXO, DMM, or MC that are known or suspected to be present, the exposure setting (the MRS's physical environment), any other incidental non-munitions related contaminants found at the MRS (e.g., benzene, trichloroethylene), and any potentially exposed human and ecological receptors. Include a map of the MRS, if one is available.

Munitions Response Site (MRS) Name:	**MRS No. 8, Moving Target Range No. 75**
Component:	US Army
Installation/Property Name:	**Camp Adair/Adair Air Force Station**
Location (City, County, State):	Benton County
UTM Coordinates (NAD83):	N 4952193.89, E 474603.57
Site Name (RMIS ID):	Moving Target Range No. 75 (F10OR002903R15)
Project Name (Project No.):	Formerly Used Defense Sites, Military Munitions Response Program Site Inspections at Multiple Sites (116188)
Date Information Entered/Updated:	31-May-2007
Point of Contact (Name/Phone):	William Graney/206-764-3494

Project Phase ("X" only one):									
		PA	**X**	**SI**		**RI**		**FS**		**RD**
		RA-C		**RIP**		**RA-O**		**RC**		**LTM**

Media Evaluated ("X" all that apply):				
	X	**Groundwater (human receptor)**	**X**	**Sediment (human receptor)**
	X	**Surface soil (human receptor)**		**Surface water (ecological receptor)**
	X	**Sediment (ecological receptor)**		**Surface water (human receptor)**

MRS Summary

MRS Description: Describe the munitions-related activities that occurred at the installation, the dates of operation, and the UXO, DMM (by type of munition, if known) or munitions constituents (by type, if known) known or suspected to be present):

MRS No. 8 consists of the Moving Target Range No. 75. The range was used by Camp Adair between 1942 and 1945. The range was supported by trails running parallel to the firing line approximately 1,000 yds and 1,500 yds down range. It is thought that this range was used as a moving target for anti-tank training. Authorized munitions would include small arms, 37mm APC, and 75 mm AP. MEC has been reported in the past. The range area is currently used for agricultural use, Christmas tree farms, and managed forests.

Description of Pathways for Human and Ecological Receptors:

The pathways evaluated with respect to MRS No. 8 (Moving Target Range No. 75): terrestrial for humans (agricultural workers and residents) and ecological (ingestion and uptake by wildlife and plants), and groundwater for humans (direct and ingestion by agricultural workers and residents).

Description of Receptors (Human and Ecological):

Receptors in the area of MRS No. 8 (Moving Target Range No. 75) include agricultural workers, forest workers, residents, plants, and wildlife.

Table 1
EHE Module: Munitions Type Data Element Table

Directions: Below are eleven classifications of munitions and their descriptions. Annotate the score(s) that correspond with **all** munitions types known or suspected to be present at the MRS.

Note: The terms *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Sensitive	All UXO that are considered likely to function upon any interaction with exposed persons [e.g., submunitions, 40mm high-explosive (HE) grenades, white phosphorous (WP) munitions, high-explosive antitank (HEAT) munitions, and practice munitions with sensitive fuzes, but excluding all other practice munitions].	30	
	All hand grenades containing energetic filler.		
	Bulk primary explosives, or mixtures of these with environmental media, such that the mixture poses an explosive hazard.		
High explosive (used or damaged)	All UXO containing a high-explosive filler (e.g., RDX, Composition B), that are not considered "sensitive."	25	25
	All DMM containing a high-explosive filler that have been damaged by burning or detonation, or deteriorated to the point of instability.		
Pyrotechnic (used or damaged)	All UXO containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades).	20	
	All DMM containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades) that have been damaged by burning or detonation, or deteriorated to the point of instability.		
High explosive (unused)	All DMM containing a high-explosive filler that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	15	15
Propellant	All UXO containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor).	15	15
	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor) that are damaged by burning or detonation, or deteriorated to the point of instability.		
Bulk secondary high explosives, pyrotechnics, or propellant	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor), that are deteriorated.	10	
	Bulk secondary high explosives, pyrotechnic compositions, or propellant (not contained in a munition), or mixtures of these with environmental media such that the mixture poses an explosive hazard.		
Pyrotechnic (not used or damaged)	All DMM containing a pyrotechnic filler (i.e. red phosphorous), other than white phosphorous filler, that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	10	
Practice	All UXO that are practice munitions that are not associated with a sensitive fuze.	5	
	All DMM that are practice munitions that are not associated with a sensitive fuze and that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.		
Riot control	All UXO or DMM containing a riot control agent filler (e.g., tear gas).	3	
Small arms	All used munitions or DMM that are categorized as small arms ammunition [Physical evidence or historical evidence that no other types of munitions (e.g., grenades, subcaliber training rockets, demolition charges) were used or are present on the MRS is required for selection of this category.].	2	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
MUNITIONS TYPE	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**25**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Munitions Type*** classifications in the space below.

The ASR Site Inspection team inspected the Range Complex No. 75 vicinity. The team did not uncover any OE debris or hazards. There has been one report of MEC in the MRS (2007 SI Report, Table 2-3). The 2006 SI field team did not observe any ordnance or explosives during site sampling activities.

Table 2

EHE Module: Source of Hazard Data Element Table

Directions: Below are eleven classifications describing sources of explosive hazards. Annotate the score(s) that correspond with **all** sources of explosive hazards known or suspected to be present at the MRS.

Note: The terms *former range* , *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Former range	The MRS is a former military range where munitions (including practice munitions with sensitive fuzes) have been used. Such areas include: impact or target areas, associated buffer and safety zones, firing points, and live-fire maneuver areas.	10	10
Former munitions treatment (i.e. OB/OD) unit	The MRS is a location where UXO or DMM (e.g., munitions, bulk explosives, bulk pyrotechnic, or bulk propellants) were burned or detonated for the purpose of treatment prior to disposal.	8	
Former practice munitions range	The MRS is a former military range on which only practice munitions without sensitive fuzes were used.	6	
Former maneuver area	The MRS is a former maneuver area where no munitions other than flares, simulators, smokes, and blanks were used. There must be evidence that no other munitions were used at the location to place an MRS into this category.	5	
Former burial pit or other disposal area	The MRS is a location where DMM were buried or disposed of (e.g., disposed of into a water body) without prior thermal treatment.	5	
Former industrial operating facilities	The MRS is a location that is a former munitions maintenance, manufacturing, or demilitarization facility.	4	
Former firing points	The MRS is a firing point, where the firing point is delineated as an MRS separate from the rest of a former military range.	4	
Former missile or air defense artillery emplacements	The MRS is a former missile defense or air defense artillery (ADA) emplacement not associated with a military range.	2	
Former storage or transfer points	The MRS is a location where munitions were stored or handled for transfer between different modes of transportation (e.g., rail to truck, truck to weapon system).	2	
Former small arms range	The MRS is a former military range where only small arms ammunition was used [There must be evidence that no other types of munitions (e.g., grenades) were used or are present to place an MRS iinto this category.].	1	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that no UXO or DMM are present, or there is historical evidence indicating that no UXO or DMM are present.	0	
SOURCE OF HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**10**

DIRECTIONS: Document any MRS-specific data used in selecting the **Source of Hazard** classifications in the space below.

MRS No. 8 consists of the Moving Target Range No. 75. The range was used by Camp Adair between 1942 and 1945. The range was supported by trails running parallel to the firing line approximately 1,000 yds and 1,500 yds down range. It is thought that this range was used as a moving target for anti-tank training. Authorized munitions would include small arms, 37mm APC, and 75 mm AP. MEC has been reported in the past. The range area is currently used for agricultural use, Christmas tree farms, and managed forests (2007 SI Report, Table 2-1).

Table 3
EHE Module: Location of Munitions Data Element Table

Directions: Below are eight classifications of munitions locations and their descriptions. Annotate the score(s) that correspond with **all** locations where munitions are located or suspected of being found at the MRS.

Note: The terms *surface* , *subsurface* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Confirmed surface	Physical evidence indicates that there are UXO or DMM on the surface of the MRS. Historical evidence (e.g., a confirmed incident report or accident report) indicates there are UXO or DMM on the surface of the MRS.	25	
Confirmed subsurface, active	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM.	20	
Confirmed subsurface, stable	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed.	15	
Suspected (physical evidence)	There is physical evidence (e.g., munitions debris, such fragments, penetrators, projectiles, shell casings, links, fins), other than the documented presence of UXO or DMM, indicating that UXO or DMM may be present at the MRS.	10	10
Suspected (historical evidence)	There is historical evidence indicating that UXO or DMM may be present at the MRS.	5	5
Subsurface, physical constraint	There is physical or historical evidence indicating that UXO or DMM may be present in the subsurface, but there is a physical constraint (e.g., pavement, water depth over 120 feet) preventing direct access to the UXO or DMM.	2	
Small arms (regardless of location)	The presence of small arms ammunition is confirmed or suspected, regardless of other factors such as geological stability [There must be evidence that no other types of munitions (e.g., grenades) were used or are present at the MRS to place an MRS into this category.]	1	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
LOCATION OF MUNITIONS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 25).		**10**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Location of Munitions*** classifications in the space below.

The ASR Site Inspection team inspected the Range Complex No. 75 MRS vicinity. The team did not uncover any OE debris or hazards. There has been one report of MEC in the MRS (2007 SI Report, Table 2-3, Figure 5-11). The 2006 SI field team did not observe any ordnance or explosives during site sampling activities.

Table 4
EHE Module: Ease of Access Data Element Table

Directions: Below are four classifications of barrier types that can surround an MRS and their descriptions. The barrier type is directly related to the ease of public access to any explosive materiel. Annotate the score that corresponds with the ease of access to the MRS.

Note: The term *barrier* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
No barrier	There is no barrier preventing access to any part of the MRS (i.e. all parts of the MRS are accessible).	10	10
Barrier to MRS access is incomplete	There is a barrier preventing access to parts of the MRS, but not the entire MRS.	8	
Barrier to MRS access is complete but not monitored	There is a barrier preventing access to all parts of the MRS, but there is no surveillance (e.g., by a guard) to ensure that the barrier is effectively preventing access to all parts of the MRS.	5	
Barrier to MRS access is complete and monitored	There is a barrier preventing access to all parts of the MRS, and there is active, continual surveillance (e.g., by a guard, video monitoring) to ensure that the barrier is effectively preventing access to all parts of the MRS.	0	
EASE OF ACCESS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**10**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ease of Access*** classification in the space below.

As of August 2006, there is no fencing or signage restricting or limiting access to the area by the general public (2007 SI Report, Section 4.2.2).

Table 5
EHE Module: Status of Property Data Element Table

Directions: Below are three classifications of the status of a property within the Department of Defense (DoD) and their descriptions. Annotate the score that corresponds with the status of property at the MRS.

Note: N/A

Classification	Description	Possible Score	Score
Non-DoD control	The MRS is at a location that is no longer owned by, leased to, or otherwise possessed or used by DoD. Examples are privately owned land or water bodies; land or water bodies owned or controlled by state, tribal, or local governments; and land or water bodies managed by other federal agencies.	5	5
Scheduled for transfer from DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD, and DoD plans to transfer that land or water body to the control of another entity (e.g., a state, tribal, or local government; a private party; another federal agency) within 3 years from the date the rule is applied.	3	
DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD. With respect to property that is leased or otherwise possessed, DoD must control access to the MRS 24 hours per day, every day of the calendar year.	0	
STATUS OF PROPERTY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Status of Property*** classification in the space below.

Camp Adair was acquired by the Army beginning in 1941. In 1946, the War Department declared Camp Adair surplus and was assigned to the War Assets Administration for disposition under the Surplus Property Act. In 1946, the property was transferred to the Department of Agriculture for sale by the Federal Land Bank. The property is currently owned by private citizens and corporations. There is no controlled access to the MRS (2007 SI Report, Section 4.2.2).

Table 6
EHE Module: Population Density Data Element Table

Directions: Below are three classifications of population density and their descriptions. Determine the population density per square mile in the vicinity of the MRS and annotate the score that corresponds with the associated population density.

Note: If an MRS is located in more than one county, use the largest population density value among the counties. If the MRS is within or borders a city or town, use the population density for the city or town, rather than that of the county.

Classification	Description	Possible Score	Score
> 500 persons per square mile	There are more than 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	5	
100 - 500 persons per square mile	There are 100 to 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	3	
< 100 persons per square mile	There are fewer than 100 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	1	1
POPULATION DENSITY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**1**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Density*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 4.2.3).

Table 7
EHE Module: Population Near Hazard Data Element Table

Directions: Below are six classifications describing the number of inhabited structures near the MRS. The number of inhabited buildings relates to the population near the hazard. Determine the number of inhabited structures within two miles of the MRS boundary and annotate the score that corresponds with the associated population near the known or suspected hazard.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
26 or more inhabited structures	There are 26 or more inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	5	5
16 to 25 inhabited structures	There are 16 to 25 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	4	
11 to 15 inhabited structures	There are 11 to 15 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	3	
6 to 10 inhabited structures	There are 6 to 10 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	2	
1 to 5 inhabited structures	There are 1 to 5 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	1	
0 inhabited structures	There are no inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	0	
POPULATION NEAR HAZARD	**DIRECTIONS:** Record **<u>the single highest score</u>** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Near Hazard*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 4.2.3).

Table 8

EHE Module: Types of Activities/Structures Data Element Table

Directions: Below are five classifications of activities and/or inhabited structures near the hazard and their descriptions. Review the types of activities that occur and/or structures that are present within two miles of the MRS and annotate the score(s) that correspond with **all** the activities/structure classifications at the MRS.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Residential, educational, commercial, or subsistence	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with any of the following purposes: residential, educational, child care, critical assets (e.g., hospitals, fire and rescue, police stations, dams), hotels, commercial, shopping centers, playgrounds, community gathering areas, religious sites, or sites used for subsistence hunting, fishing, and gathering.	5	5
Parks and recreational areas	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with parks, nature preserves, or other recreational uses.	4	4
Agricultural, forestry	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with agriculture or forestry.	3	3
Industrial or warehousing	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with industrial activities or warehousing.	2	
No known or recurring activities	There are no known or recurring activities occurring up to two miles from the MRS's boundary or within the MRS's boundary.	1	
TYPES OF ACTIVITIES/STRUCTURES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Types of Activities/Structures*** classifications in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 4.2.3).

Table 9

EHE Module: Ecological and/or Cultural Resources Data Element Table

Directions: Below are four classifications of ecological and/or cultural resources and their descriptions. Review the types of resources present and annotate the score that corresponds with the ecological and/or cultural resource classifications at the MRS.

Note: The terms *ecological resources* and *cultural resources* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Ecological and cultural resources present	There are both ecological and cultural resources present on the MRS.	5	
Ecological resources present	There are ecological resources present on the MRS.	3	3
Cultural resources present	There are cultural resources present on the MRS.	3	
No ecological or cultural resources present	There are no ecological resources or cultural resources present on the MRS.	0	
ECOLOGICAL AND/OR CULTURAL RESOURCES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**3**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ecological and/or Cultural Resources*** classification in the space below.

The State Historic Preservation Office (SHPO), U.S. Forest Service (USFS), and the Oregon Department of Fish and Wildlife (ODFW) were contacted regarding cultural and natural resources. The SHPO indicated that no potential cultural/archaeological resources were within the currently identified MRS No. 8. The ODFW, Oregon Department of Agriculture, and the U.S. Fish and Wildlife Service were contacted regarding identification of any potentially impacted, threatened, or endangered species at Camp Adair. Two plant species are known to grow in the Camp Adair area. However, the agencies were not concerned with the proposed site activities because of the fact they were minimally invasive (2007 SI Report, Sections 2.4.7, 3.2.1 and 3.2.2).

Table 10

Determining the EHE Module Rating

DIRECTIONS:

1. From Tables 01 - 09, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **EHE Module Total** box below.

4. Identify the appropriate range for the **EHE Module Total** at right.

5. Identify the **EHE Module Rating** that corresponds to the range selected and record this rating in the **EHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

	Source	Score	Value
Explosive Hazard Factor Data Elements			
Munitions Type	Table 01	25	35
Source of Hazard	Table 02	10	
Accessibility Factor Data Elements			
Location of Munitions	Table 03	10	25
Ease of Access	Table 04	10	
Status of Property	Table 05	5	
Receptor Factor Data Elements			
Population Density	Table 06	1	14
Population Near Hazard	Table 07	5	
Types of Activities/Structures	Table 08	5	
Ecological and/or Cultural Resources	Table 09	3	
EHE MODULE TOTAL			**74**

EHE Module Total	EHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected Explosive Hazard
EHE MODULE RATING	**C**

Table 11

CHE Module: CWM Configuration Data Element Table

Directions: Below are seven classifications of CWM configuration and their descriptions. Annotate the score(s) that correspond to **all** CWM configurations known or suspected to be present at the MRS.

Note: The terms *CWM/UXO*, *CWM/DMM*, *physical evidence*, and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
CWM, explosive configuration either UXO or damaged DMM	The CWM known or suspected of being present at the MRS is (a) explosively configured CWM that are UXO (i.e. CWM/UXO), or (b) explosively configured CWM that are DMM (i.e. CWM/DMM) that have been damaged.	30	
CWM mixed with UXO	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged, or nonexplosively configured CWM/DMM, or CWM not configured as a munition, that are commingled with conventional munitions that are UXO.	25	
CWM, explosive configuration that are undamaged DMM	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged.	20	
CWM, not explosively configured or CWM, bulk container	The CWM known or suspected of being present at the MRS is (a) nonexplosively configured CWM/DMM, or (b) bulk CWM/DMM (e.g., ton container).	15	
CAIS K941 and CAIS K942	The CWM/DMM known or suspected of being present at the MRS is CAIS K941(toxic gas set M-1) or CAIS K942 (toxic gas set M-2/E11).	12	
CAIS (chemical agent identification sets)	Only CAIS, other than CAIS K941 and K942, are known or suspected of being present at the MRS.	10	
Evidence of no CWM	Following investigation, the physical evidence indicates that CWM are not present at the MRS, or the historical evidence indicates that CWM are not present at the MRS.	0	0
CWM CONFIGURATION	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**0**

DIRECTIONS: Document any MRS-specific data used in selecting the ***CWM Configuration*** classifications in the space below.

As there are no records of CWM munitions being used or found at the MRS No. 8

Table 20

Determining the CHE Module Rating

DIRECTIONS:

1. From Tables 11 - 19, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **CHE Module Total** box below.

	Source	Score	Value
CWM Hazard Factor Data Elements			
CWM Configuration	Table 11	0	0
Sources of CWM	Table 12	0	
Accessibility Factor Data Elements			
Location of CWM	Table 13	0	0
Ease of Access	Table 14	0	
Status of Property	Table 15	0	
Receptor Factor Data Elements			
Population Density	Table 16	0	0
Population Near Hazard	Table 17	0	
Types of Activities/Structures	Table 18	0	
Ecological and/or Cultural Resources	Table 19	0	
		CHE MODULE TOTAL	**0**

4. Identify the appropriate range for the **CHE Module Total** at right.

5. Identify the **CHE Module Rating** that corresponds to the range selected and record this rating in the **CHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

CHE Module Total	CHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected CWM Hazard
CHE MODULE RATING	**No Known or Suspected CWM Hazard**

Table 21

HHE Module: Groundwater Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's groundwater and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the groundwater, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
		Sum the Ratios	

CHF Scale	CHF Value
CHF > 100	H (High)
100 > CHF >2	M (Medium)
2 > CHF	L (Low)

CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the groundwater migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the groundwater is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in groundwater has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the groundwater to a potential point of exposure (possibly due to geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the groundwater receptors at the MRS.

Classification	Description	Value
Identified	There is a threatened water supply well downgradient of the source and the groundwater is a current source of drinking water or source of water for other beneficial uses such as irrigation/agriculture (equivalent to Class I or IIA aquifer).	H
Potential	There is no threatened water supply well downgradient of the source and the groundwater is currently or potentially usable for drinking water, irrigation, or agriculture (equivalent to Class I, IIA, or IIB aquifer).	M
Limited	There is no potentially threatened water supply well downgradient of the source and the groundwater is not considered a potential source of drinking water and is of limited beneficial use (equivalent to Class IIIA or IIIB aquifer, or where perched aquifer exists only).	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Groundwater MC Hazard	**X**

Table 22

HHE Module: Surface Water - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface water, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Human Endpoint) MC Hazard	**X**

Table 23

HHE Module: Sediment - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the site's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for human endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		
CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).		

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	
Place an "X" in the box to the right if there is no known or suspected Sediment (Human Endpoint) MC Hazard		**X**

Table 24

HHE Module: Surface Water - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the surface water, select the box at the bottom of the table.

Note: Use either dissolved or total metals analyses.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Ecological Endpoint) MC Hazard	**X**

Table 25

HHE Module: Sediment - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Sediment (Ecological Endpoint) MC Hazard	**X**

Table 26

HHE Module: Surface Soil - Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface soil and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface soil, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
7440-38-2 (Barium)	646.00	2,600.00	0
		Total from Table 27	
		Sum the Ratios	0

CHF Scale	CHF Value
CHF > 100	H (High)
100 > CHF >2	M (Medium)
2 > CHF	L (Low)

CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	**L**

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface soil migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface soil is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface soil has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface soil to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	**M**

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface soil receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface soil to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface soil to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface soil to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	**H**

Place an "X" in the box to the right if there is no known or suspected Surface Soil MC Hazard	

Table 27

HHE Module: Supplemental Contaminant Hazard Factor Table

Contaminant Hazard Factor (CHF)

Directions: **Only use this table if there are more than five contaminants present at the MRS.** This is a supplemental table designed to hold information about contaminants that do not fit in the previous tables. Indicate the **media** in which these contaminants are present. Then record all **contaminants**, their **maximum concentrations** and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Calculate and record the **ratio** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** for each medium on the appropriate media-specific tables.

Note: For human exposures to groundwater and surface water, use dissolved, rather than total, metals analyses when both are available. Remember not to add ratios from different media.

Media	Contaminant [CAS No.]	Maximum Concentration	Units	Comparison Value	Units	Ratios
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
					SUBTOTAL FOR SURFACE SOIL	**0**
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
					SUBTOTAL FOR SEDIMENT	**0**
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
					SUBTOTAL FOR SURFACE WATER	**0**
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
					SUBTOTAL FOR GROUNDWATER	**0**

Table 28

Determining the HHE Module Rating

DIRECTIONS:

1. Record the letter values (H, M, L) for the **Contaminant Hazard**, **Migration Pathway**, and **Receptor Factors** for the media (from Tables 21 - 26) in the corresponding boxes below.
2. Record the media's three-letter combinations in the **Three-Letter-Combination** boxes below (three-letter combinations are arranged from Hs to Ms to Ls).
3. Using the reference provided below, determine each medium's rating (A - G) and record the letter in the corresponding **Media Rating** box below.

Medium (Source)	Contaminant Hazard Factor Value	Migratory Pathway Factor Value	Receptor Factor Value	Three-Letter Combination (Hs-Ms-Ls)	Media Rating (A - G)
Table 21 - Groundwater					
Table 22 - Surface Water (Human Endpoint)					
Table 23 - Sediment (Human Endpoint)					
Table 24 - Surface Water (Ecological Endpoint)					
Table 25 - Sediment (Ecological Endpoint)					
Table 26 - Surface Soil	L	M	H	HML	D
			HHE MODULE RATING		**D**

DIRECTIONS (Continued):

4. Select the single highest **Media Rating** (A is the highest; G is the lowest) and enter the letter in the **HHE Module Rating** box below.

HHE Ratings (for reference only)	
HHH	A
HHM	B
HHL	C
HMM	
HML	D
MMM	
HLL	E
MML	
MLL	F
LLL	G

NOTE: An alternative module rating may be assigned when a module letter rating is used when more information is needed to score one or more media, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

Alternative Module Ratings	
	Evaluation Pending
	No Longer Required
	No Known or Suspected MC Hazard

Table 29

MRS Priority

DIRECTIONS: In the chart below, enter the letter **rating** for each module recorded in Table 10 (EHE), Table 20 (CHE), and Table 28 (HHE). Enter the corresponding numerical **priority** for each module. If information to determine the module rating is not available, choose the appropriate alternative module rating. The MRS priority is the single highest priority; record this number in the **MRS or Alternative Priority** box at the bottom of the table.

NOTE: An MRS assigned Priority 1 has the highest relative priority; an MRS assigned Priority 8 has the lowest relative priority. Only an MRS with CWM known or suspected to be present can be assigned Priority 1; an MRS that has CWM known or suspected to be present cannot be assigned Priority 8.

EHE Rating	Priority	CHE Rating	Priority	HHE Rating	Priority
		A	1		
A	2	B	2	A	2
B	3	C	3	B	3
C	4	D	4	C	4
D	5	E	5	D	5
E	6	F	6	E	6
F	7	G	7	F	7
G	8			G	8
Evaluation Pending		Evaluation Pending		Evaluation Pending	
No Longer Required		No Longer Required		No Longer Required	
No Known or Suspected Explosive Hazard		No Known or Suspected CWM Hazard		No Known or Suspected MC Hazard	

Reference Table 10:		Reference Table 20:		Reference Table 28:	
EHE Module Rating	Priority	CHE Module Rating	Priority	HHE Module Rating	Priority
C	4	No Known or Suspected CWM Hazard	No Known or Suspected CWM Hazard	D	5

MRS or Alternative Priority	4

Table A

MRS Background Information

DIRECTIONS: Record the background information below for the MRS to be evaluated. Much of this information is available from DoD databases, such as RMIS. If the MRS is located on a FUDS property, the suitable FUDS property information should be substituted. In the MRS summary, briefly describe the UXO, DMM, or MC that are known or suspected to be present, the exposure setting (the MRS's physical environment), any other incidental non-munitions related contaminants found at the MRS (e.g., benzene, trichloroethylene), and any potentially exposed human and ecological receptors. Include a map of the MRS, if one is available.

Munitions Response Site (MRS) Name:	**MRS No. 9, Range Complex No. 4**
Component:	US Army
Installation/Property Name:	**Camp Adair/Adair Air Force Station**
Location (City, County, State):	Benton County, Oregon
UTM Coordinates (NAD83):	N 4950504.85, E 477424.57
Site Name (RMIS ID):	Range Complex No. 4 (F10OR002903R19)
Project Name (Project No.):	Formerly Used Defense Sites, Military Munitions Response Program Site Inspections at Multiple Sites (116188)
Date Information Entered/Updated:	31-May-2007
Point of Contact (Name/Phone):	William Graney/206-764-3494

Project Phase ("X" only one):									
		PA	**X**	**SI**		**RI**		**FS**		**RD**
		RA-C		**RIP**		**RA-O**		**RC**		**LTM**

Media Evaluated ("X" all that apply):				
	X	**Groundwater (human receptor)**	**X**	**Sediment (human receptor)**
	X	**Surface soil (human receptor)**		**Surface water (ecological receptor)**
	X	**Sediment (ecological receptor)**		**Surface water (human receptor)**

MRS Summary

MRS Description: Describe the munitions-related activities that occurred at the installation, the dates of operation, and the UXO, DMM (by type of munition, if known) or munitions constituents (by type, if known) known or suspected to be present):

MRS No. 9 consists entirely of Range Complex No. 4. The MRS was used by Camp Adair 1942 and 1945. The MRS is comprised of 16 subranges. The range was used only for small arms training. Potential contaminants include lead from bullets and perchorate used in tracer rounds. The range area is currently used as a managed forest by Oregon State University, small agricultural crop growing operations, and residences.

Description of Pathways for Human and Ecological Receptors:

The pathways evaluated with respect to MRS No. 9 are: groundwater for humans (direct ingestion by agricultural workers and residents); terrestrial for humans (direct contact by forest workers, agricultural workers, and residents) and ecological (ingestion and uptake by wildlife and plants); and sediments for humans (direct contact by forest workers, agricultural workers, and residents) and ecological (ingestion and uptake by wildlife and plants).

Description of Receptors (Human and Ecological):

Receptors at MRS No. 9 include forest workers, agricultural workers, residents, plants, and wildlife.

Table 1
EHE Module: Munitions Type Data Element Table

Directions: Below are eleven classifications of munitions and their descriptions. Annotate the score(s) that correspond with **all** munitions types known or suspected to be present at the MRS.

Note: The terms *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Sensitive	All UXO that are considered likely to function upon any interaction with exposed persons [e.g., submunitions, 40mm high-explosive (HE) grenades, white phosphorous (WP) munitions, high-explosive antitank (HEAT) munitions, and practice munitions with sensitive fuzes, but excluding all other practice munitions].	30	
	All hand grenades containing energetic filler.		
	Bulk primary explosives, or mixtures of these with environmental media, such that the mixture poses an explosive hazard.		
High explosive (used or damaged)	All UXO containing a high-explosive filler (e.g., RDX, Composition B), that are not considered "sensitive."	25	
	All DMM containing a high-explosive filler that have been damaged by burning or detonation, or deteriorated to the point of instability.		
Pyrotechnic (used or damaged)	All UXO containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades).	20	
	All DMM containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades) that have been damaged by burning or detonation, or deteriorated to the point of instability.		
High explosive (unused)	All DMM containing a high-explosive filler that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	15	
Propellant	All UXO containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor).	15	
	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor) that are damaged by burning or detonation, or deteriorated to the point of instability.		
Bulk secondary high explosives, pyrotechnics, or propellant	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor), that are deteriorated.	10	
	Bulk secondary high explosives, pyrotechnic compositions, or propellant (not contained in a munition), or mixtures of these with environmental media such that the mixture poses an explosive hazard.		
Pyrotechnic (not used or damaged)	All DMM containing a pyrotechnic filler (i.e. red phosphorous), other than white phosphorous filler, that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	10	
Practice	All UXO that are practice munitions that are not associated with a sensitive fuze.	5	
	All DMM that are practice munitions that are not associated with a sensitive fuze and that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.		
Riot control	All UXO or DMM containing a riot control agent filler (e.g., tear gas).	3	
Small arms	All used munitions or DMM that are categorized as small arms ammunition [Physical evidence or historical evidence that no other types of munitions (e.g., grenades, subcaliber training rockets, demolition charges) were used or are present on the MRS is required for selection of this category.].	2	2
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
MUNITIONS TYPE	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**2**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Munitions Type*** classifications in the space below.

The ASR Site Inspection team inspected the MRS No. 9 area. MRS was only used for small arms training. The team reported no ordnance or explosives were found at the MRS. The 2006 SI field team inspected the MRA/MRS and during sampling identified one expended bullet. No MEC or munitions debris has been reported found in this MRS.

Table 2

EHE Module: Source of Hazard Data Element Table

Directions: Below are eleven classifications describing sources of explosive hazards. Annotate the score(s) that correspond with **all** sources of explosive hazards known or suspected to be present at the MRS.

Note: The terms *former range* , *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Former range	The MRS is a former military range where munitions (including practice munitions with sensitive fuzes) have been used. Such areas include: impact or target areas, associated buffer and safety zones, firing points, and live-fire maneuver areas.	10	
Former munitions treatment (i.e. OB/OD) unit	The MRS is a location where UXO or DMM (e.g., munitions, bulk explosives, bulk pyrotechnic, or bulk propellants) were burned or detonated for the purpose of treatment prior to disposal.	8	
Former practice munitions range	The MRS is a former military range on which only practice munitions without sensitive fuzes were used.	6	
Former maneuver area	The MRS is a former maneuver area where no munitions other than flares, simulators, smokes, and blanks were used. There must be evidence that no other munitions were used at the location to place an MRS into this category.	5	
Former burial pit or other disposal area	The MRS is a location where DMM were buried or disposed of (e.g., disposed of into a water body) without prior thermal treatment.	5	
Former industrial operating facilities	The MRS is a location that is a former munitions maintenance, manufacturing, or demilitarization facility.	4	
Former firing points	The MRS is a firing point, where the firing point is delineated as an MRS separate from the rest of a former military range.	4	
Former missile or air defense artillery emplacements	The MRS is a former missile defense or air defense artillery (ADA) emplacement not associated with a military range.	2	
Former storage or transfer points	The MRS is a location where munitions were stored or handled for transfer between different modes of transportation (e.g., rail to truck, truck to weapon system).	2	
Former small arms range	The MRS is a former military range where only small arms ammunition was used [There must be evidence that no other types of munitions (e.g., grenades) were used or are present to place an MRS iinto this category.].	1	1
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that no UXO or DMM are present, or there is historical evidence indicating that no UXO or DMM are present.	0	
SOURCE OF HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**1**

DIRECTIONS: Document any MRS-specific data used in selecting the **Source of Hazard** classifications in the space below.

MRS No. 9 consists entirely of Range Complex No. 4. The MRS was used by Camp Adair 1942 and 1945 for small arms training only. The SI field team did not observe any indication that anything other than small arms were used (2007 SI Report, Section 4.1.1).

Table 3
EHE Module: Location of Munitions Data Element Table

Directions: Below are eight classifications of munitions locations and their descriptions. Annotate the score(s) that correspond with **all** locations where munitions are located or suspected of being found at the MRS.

Note: The terms *surface* , *subsurface* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Confirmed surface	Physical evidence indicates that there are UXO or DMM on the surface of the MRS. Historical evidence (e.g., a confirmed incident report or accident report) indicates there are UXO or DMM on the surface of the MRS.	25	
Confirmed subsurface, active	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM.	20	
Confirmed subsurface, stable	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed.	15	
Suspected (physical evidence)	There is physical evidence (e.g., munitions debris, such fragments, penetrators, projectiles, shell casings, links, fins), other than the documented presence of UXO or DMM, indicating that UXO or DMM may be present at the MRS.	10	
Suspected (historical evidence)	There is historical evidence indicating that UXO or DMM may be present at the MRS.	5	
Subsurface, physical constraint	There is physical or historical evidence indicating that UXO or DMM may be present in the subsurface, but there is a physical constraint (e.g., pavement, water depth over 120 feet) preventing direct access to the UXO or DMM.	2	
Small arms (regardless of location)	The presence of small arms ammunition is confirmed or suspected, regardless of other factors such as geological stability [There must be evidence that no other types of munitions (e.g., grenades) were used or are present at the MRS to place an MRS into this category.]	1	1
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
LOCATION OF MUNITIONS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 25).		**1**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Location of Munitions*** classifications in the space below.

The ASR Site Inspection team inspected the MRS No. 9 area. The team reported no ordnance or explosives were found at the MRS. The 2006 SI field team inspected the MRS and during sampling identified one expended bullet (2007 SI Report, Section 4.1.1).

Table 4
EHE Module: Ease of Access Data Element Table

Directions: Below are four classifications of barrier types that can surround an MRS and their descriptions. The barrier type is directly related to the ease of public access to any explosive materiel. Annotate the score that corresponds with the ease of access to the MRS.

Note: The term *barrier* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
No barrier	There is no barrier preventing access to any part of the MRS (i.e. all parts of the MRS are accessible).	10	10
Barrier to MRS access is incomplete	There is a barrier preventing access to parts of the MRS, but not the entire MRS.	8	
Barrier to MRS access is complete but not monitored	There is a barrier preventing access to all parts of the MRS, but there is no surveillance (e.g., by a guard) to ensure that the barrier is effectively preventing access to all parts of the MRS.	5	
Barrier to MRS access is complete and monitored	There is a barrier preventing access to all parts of the MRS, and there is active, continual surveillance (e.g., by a guard, video monitoring) to ensure that the barrier is effectively preventing access to all parts of the MRS.	0	
EASE OF ACCESS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**10**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ease of Access*** classification in the space below.

As of August 2006, there is no fencing or signage restricting or limiting access to the area by the general public. Roads into the managed forest lands are gated and locked. However, foot traffic is unrestricted onto that portion of MRS No. 9.

Table 5
EHE Module: Status of Property Data Element Table

Directions: Below are three classifications of the status of a property within the Department of Defense (DoD) and their descriptions. Annotate the score that corresponds with the status of property at the MRS.

Note: N/A

Classification	Description	Possible Score	Score
Non-DoD control	The MRS is at a location that is no longer owned by, leased to, or otherwise possessed or used by DoD. Examples are privately owned land or water bodies; land or water bodies owned or controlled by state, tribal, or local governments; and land or water bodies managed by other federal agencies.	5	5
Scheduled for transfer from DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD, and DoD plans to transfer that land or water body to the control of another entity (e.g., a state, tribal, or local government; a private party; another federal agency) within 3 years from the date the rule is applied.	3	
DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD. With respect to property that is leased or otherwise possessed, DoD must control access to the MRS 24 hours per day, every day of the calendar year.	0	
STATUS OF PROPERTY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Status of Property*** classification in the space below.

Camp Adair was acquired by the Army beginning in 1941. In 1946, the War Department declared Camp Adair surplus and was assigned to the War Assets Administration for disposition under the Surplus Property Act. In 1946, the property was transferred to the Department of Agriculture for sale by the Federal Land Bank. The Oregon National Guard has occupied a portion of Camp Adair since 1946 as a training facility. As of 2006, property ownership of MRS No. 9 include Oregon State Unversity Forestry Department and private citizens. There is no controlled access to the FUDS.

Table 6
EHE Module: Population Density Data Element Table

Directions: Below are three classifications of population density and their descriptions. Determine the population density per square mile in the vicinity of the MRS and annotate the score that corresponds with the associated population density.

Note: If an MRS is located in more than one county, use the largest population density value among the counties. If the MRS is within or borders a city or town, use the population density for the city or town, rather than that of the county.

Classification	Description	Possible Score	Score
> 500 persons per square mile	There are more than 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	5	
100 - 500 persons per square mile	There are 100 to 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	3	
< 100 persons per square mile	There are fewer than 100 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	1	1
POPULATION DENSITY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**1**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Density*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 7
EHE Module: Population Near Hazard Data Element Table

Directions: Below are six classifications describing the number of inhabited structures near the MRS. The number of inhabited buildings relates to the population near the hazard. Determine the number of inhabited structures within two miles of the MRS boundary and annotate the score that corresponds with the associated population near the known or suspected hazard.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
26 or more inhabited structures	There are 26 or more inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	5	5
16 to 25 inhabited structures	There are 16 to 25 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	4	
11 to 15 inhabited structures	There are 11 to 15 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	3	
6 to 10 inhabited structures	There are 6 to 10 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	2	
1 to 5 inhabited structures	There are 1 to 5 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	1	
0 inhabited structures	There are no inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	0	
POPULATION NEAR HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Near Hazard*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 8

EHE Module: Types of Activities/Structures Data Element Table

Directions: Below are five classifications of activities and/or inhabited structures near the hazard and their descriptions. Review the types of activities that occur and/or structures that are present within two miles of the MRS and annotate the score(s) that correspond with **all** the activities/structure classifications at the MRS.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Residential, educational, commercial, or subsistence	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with any of the following purposes: residential, educational, child care, critical assets (e.g., hospitals, fire and rescue, police stations, dams), hotels, commercial, shopping centers, playgrounds, community gathering areas, religious sites, or sites used for subsistence hunting, fishing, and gathering.	5	5
Parks and recreational areas	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with parks, nature preserves, or other recreational uses.	4	4
Agricultural, forestry	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with agriculture or forestry.	3	3
Industrial or warehousing	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with industrial activities or warehousing.	2	
No known or recurring activities	There are no known or recurring activities occurring up to two miles from the MRS's boundary or within the MRS's boundary.	1	
TYPES OF ACTIVITIES/STRUCTURES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Types of Activities/Structures*** classifications in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 9

EHE Module: Ecological and/or Cultural Resources Data Element Table

Directions: Below are four classifications of ecological and/or cultural resources and their descriptions. Review the types of resources present and annotate the score that corresponds with the ecological and/or cultural resource classifications at the MRS.

Note: The terms *ecological resources* and *cultural resources* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Ecological and cultural resources present	There are both ecological and cultural resources present on the MRS.	5	5
Ecological resources present	There are ecological resources present on the MRS.	3	3
Cultural resources present	There are cultural resources present on the MRS.	3	3
No ecological or cultural resources present	There are no ecological resources or cultural resources present on the MRS.	0	0
ECOLOGICAL AND/OR CULTURAL RESOURCES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ecological and/or Cultural Resources*** classification in the space below.

The State Historic Preservation Office (SHPO), U.S. Forest Service (USFS), and the Oregon Department of Fish and Wildlife (ODFW) were contacted regarding cultural and natural resources. The SHPO indicated that no potential cultural/archaeological resources were within the currently identified MRS No. 9 The ODFW, Oregon Department of Agriculture, and the U.S. Fish and Wildlife Service were contacted regarding identification of any potentially impacted, threatened, or endangered species at Camp Adair. Two plant species are known to grow in the Camp Adair area. However, the agencies were not concerned with the proposed site activities because of the fact they were minimally invasive (2007 SI Report, Sections 2.4.7, 3.2.1 and 3.2.2).

Table 10

Determining the EHE Module Rating

DIRECTIONS:

1. From Tables 01 - 09, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **EHE Module Total** box below.

4. Identify the appropriate range for the **EHE Module Total** at right.

5. Identify the **EHE Module Rating** that corresponds to the range selected and record this rating in the **EHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

	Source	Score	Value
Explosive Hazard Factor Data Elements			
Munitions Type	Table 01	2	3
Source of Hazard	Table 02	1	
Accessibility Factor Data Elements			
Location of Munitions	Table 03	1	16
Ease of Access	Table 04	10	
Status of Property	Table 05	5	
Receptor Factor Data Elements			
Population Density	Table 06	1	16
Population Near Hazard	Table 07	5	
Types of Activities/Structures	Table 08	5	
Ecological and/or Cultural Resources	Table 09	5	
EHE MODULE TOTAL			**35**

EHE Module Total	EHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected Explosive Hazard
EHE MODULE RATING	**G**

Table 11

CHE Module: CWM Configuration Data Element Table

Directions: Below are seven classifications of CWM configuration and their descriptions. Annotate the score(s) that correspond to **all** CWM configurations known or suspected to be present at the MRS.

Note: The terms *CWM/UXO*, *CWM/DMM*, *physical evidence*, and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
CWM, explosive configuration either UXO or damaged DMM	The CWM known or suspected of being present at the MRS is (a) explosively configured CWM that are UXO (i.e. CWM/UXO), or (b) explosively configured CWM that are DMM (i.e. CWM/DMM) that have been damaged.	30	
CWM mixed with UXO	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged, or nonexplosively configured CWM/DMM, or CWM not configured as a munition, that are commingled with conventional munitions that are UXO.	25	
CWM, explosive configuration that are undamaged DMM	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged.	20	
CWM, not explosively configured or CWM, bulk container	The CWM known or suspected of being present at the MRS is (a) nonexplosively configured CWM/DMM, or (b) bulk CWM/DMM (e.g., ton container).	15	
CAIS K941 and CAIS K942	The CWM/DMM known or suspected of being present at the MRS is CAIS K941(toxic gas set M-1) or CAIS K942 (toxic gas set M-2/E11).	12	
CAIS (chemical agent identification sets)	Only CAIS, other than CAIS K941 and K942, are known or suspected of being present at the MRS.	10	
Evidence of no CWM	Following investigation, the physical evidence indicates that CWM are not present at the MRS, or the historical evidence indicates that CWM are not present at the MRS.	0	0
CWM CONFIGURATION	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**0**

DIRECTIONS: Document any MRS-specific data used in selecting the ***CWM Configuration*** classifications in the space below.

As there are no records of munitions other than small arms being used or found at MRA/MRS No. 9, other types of munitions (e.g., grenades) are not considered to be of concern for this site.

Table 20

Determining the CHE Module Rating

DIRECTIONS:

1. From Tables 11 - 19, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **CHE Module Total** box below.

	Source	Score	Value
CWM Hazard Factor Data Elements			
CWM Configuration	Table 11	0	0
Sources of CWM	Table 12	0	
Accessibility Factor Data Elements			
Location of CWM	Table 13	0	0
Ease of Access	Table 14	0	
Status of Property	Table 15	0	
Receptor Factor Data Elements			
Population Density	Table 16	0	0
Population Near Hazard	Table 17	0	
Types of Activities/Structures	Table 18	0	
Ecological and/or Cultural Resources	Table 19	0	
		CHE MODULE TOTAL	**0**

4. Identify the appropriate range for the **CHE Module Total** at right.

5. Identify the **CHE Module Rating** that corresponds to the range selected and record this rating in the **CHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

CHE Module Total	CHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected CWM Hazard
CHE MODULE RATING	**No Known or Suspected CWM Hazard**

Table 21

HHE Module: Groundwater Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's groundwater and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the groundwater, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
		Sum the Ratios	

CHF Scale	CHF Value	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**
100 > CHF >2	**M (Medium)**	
2 > CHF	**L (Low)**	

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the groundwater migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the groundwater is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in groundwater has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the groundwater to a potential point of exposure (possibly due to geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the groundwater receptors at the MRS.

Classification	Description	Value
Identified	There is a threatened water supply well downgradient of the source and the groundwater is a current source of drinking water or source of water for other beneficial uses such as irrigation/agriculture (equivalent to Class I or IIA aquifer).	H
Potential	There is no threatened water supply well downgradient of the source and the groundwater is currently or potentially usable for drinking water, irrigation, or agriculture (equivalent to Class I, IIA, or IIB aquifer).	M
Limited	There is no potentially threatened water supply well downgradient of the source and the groundwater is not considered a potential source of drinking water and is of limited beneficial use (equivalent to Class IIIA or IIIB aquifer, or where perched aquifer exists only).	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	
Place an "X" in the box to the right if there is no known or suspected Groundwater MC Hazard		**X**

Table 22

HHE Module: Surface Water - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface water, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Human Endpoint) MC Hazard	**X**

Table 23

HHE Module: Sediment - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the site's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for human endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		
CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).		

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	
Place an "X" in the box to the right if there is no known or suspected Sediment (Human Endpoint) MC Hazard		**X**

Table 24

HHE Module: Surface Water - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the surface water, select the box at the bottom of the table.

Note: Use either dissolved or total metals analyses.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Ecological Endpoint) MC Hazard	**X**

Table 25

HHE Module: Sediment - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Sediment (Ecological Endpoint) MC Hazard	**X**

Table 26

HHE Module: Surface Soil - Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface soil and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface soil, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
7439-92-1 (Lead)	73.20	400.00	0
		Total from Table 27	
		Sum the Ratios	0

CHF Scale	CHF Value
CHF > 100	H (High)
100 > CHF >2	M (Medium)
2 > CHF	L (Low)

CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	**L**

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface soil migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface soil is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface soil has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface soil to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	**L**

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface soil receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface soil to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface soil to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface soil to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	**H**

Place an "X" in the box to the right if there is no known or suspected Surface Soil MC Hazard	

Table 27

HHE Module: Supplemental Contaminant Hazard Factor Table

Contaminant Hazard Factor (CHF)

Directions: **Only use this table if there are more than five contaminants present at the MRS.** This is a supplemental table designed to hold information about contaminants that do not fit in the previous tables. Indicate the **media** in which these contaminants are present. Then record all **contaminants**, their **maximum concentrations** and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Calculate and record the **ratio** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** for each medium on the appropriate media-specific tables.

Note: For human exposures to groundwater and surface water, use dissolved, rather than total, metals analyses when both are available. Remember not to add ratios from different media.

Media	Contaminant [CAS No.]	Maximum Concentration	Units	Comparison Value	Units	Ratios
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
					SUBTOTAL FOR SURFACE SOIL	**0**
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
					SUBTOTAL FOR SEDIMENT	**0**
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
					SUBTOTAL FOR SURFACE WATER	**0**
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
					SUBTOTAL FOR GROUNDWATER	**0**

Table 28

Determining the HHE Module Rating

DIRECTIONS:

1. Record the letter values (H, M, L) for the **Contaminant Hazard**, **Migration Pathway**, and **Receptor Factors** for the media (from Tables 21 - 26) in the corresponding boxes below.
2. Record the media's three-letter combinations in the **Three-Letter-Combination** boxes below (three-letter combinations are arranged from Hs to Ms to Ls).
3. Using the reference provided below, determine each medium's rating (A - G) and record the letter in the corresponding **Media Rating** box below.

Medium (Source)	Contaminant Hazard Factor Value	Migratory Pathway Factor Value	Receptor Factor Value	Three-Letter Combination (Hs-Ms-Ls)	Media Rating (A - G)
Table 21 - Groundwater					E
Table 22 - Surface Water (Human Endpoint)					
Table 23 - Sediment (Human Endpoint)					E
Table 24 - Surface Water (Ecological Endpoint)					
Table 25 - Sediment (Ecological Endpoint)					E
Table 26 - Surface Soil	L	L	H	HLL	E
			HHE MODULE RATING		**E**

DIRECTIONS (Continued):

4. Select the single highest **Media Rating** (A is the highest; G is the lowest) and enter the letter in the **HHE Module Rating** box below.

HHE Ratings (for reference only)	
HHH	A
HHM	B
HHL	C
HMM	
HML	D
MMM	
HLL	E
MML	
MLL	F
LLL	G

NOTE: An alternative module rating may be assigned when a module letter rating is used when more information is needed to score one or more media, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

Alternative Module Ratings	
	Evaluation Pending
	No Longer Required
	No Known or Suspected MC Hazard

Table 29

MRS Priority

DIRECTIONS: In the chart below, enter the letter **rating** for each module recorded in Table 10 (EHE), Table 20 (CHE), and Table 28 (HHE). Enter the corresponding numerical **priority** for each module. If information to determine the module rating is not available, choose the appropriate alternative module rating. The MRS priority is the single highest priority; record this number in the **MRS or Alternative Priority** box at the bottom of the table.

NOTE: An MRS assigned Priority 1 has the highest relative priority; an MRS assigned Priority 8 has the lowest relative priority. Only an MRS with CWM known or suspected to be present can be assigned Priority 1; an MRS that has CWM known or suspected to be present cannot be assigned Priority 8.

EHE Rating	Priority	CHE Rating	Priority	HHE Rating	Priority
		A	1		
A	2	B	2	A	2
B	3	C	3	B	3
C	4	D	4	C	4
D	5	E	5	D	5
E	6	F	6	E	6
F	7	G	7	F	7
G	8			G	8
Evaluation Pending		Evaluation Pending		Evaluation Pending	
No Longer Required		No Longer Required		No Longer Required	
No Known or Suspected Explosive Hazard		No Known or Suspected CWM Hazard		No Known or Suspected MC Hazard	

Reference Table 10:		Reference Table 20:		Reference Table 28:	
EHE Module Rating	Priority	CHE Module Rating	Priority	HHE Module Rating	Priority
G	8	No Known or Suspected CWM Hazard	No Known or Suspected CWM Hazard	E	6

MRS or Alternative Priority	6

Table A

MRS Background Information

DIRECTIONS: Record the background information below for the MRS to be evaluated. Much of this information is available from DoD databases, such as RMIS. If the MRS is located on a FUDS property, the suitable FUDS property information should be substituted. In the MRS summary, briefly describe the UXO, DMM, or MC that are known or suspected to be present, the exposure setting (the MRS's physical environment), any other incidental non-munitions related contaminants found at the MRS (e.g., benzene, trichloroethylene), and any potentially exposed human and ecological receptors. Include a map of the MRS, if one is available.

Munitions Response Site (MRS) Name:	**MRS No. 10, Mortar Range**
Component:	US Army
Installation/Property Name:	**Camp Adair/Adair Air Force Station**
Location (City, County, State):	Benton County, OR
UTM Coordinates (NAD83):	N 4947540.61, E 478953.06
Site Name (RMIS ID):	Mortar Range (F10OR002903R14)
Project Name (Project No.):	Formerly Used Defense Sites, Military Munitions Response Program Site Inspections at Multiple Sites (116188)
Date Information Entered/Updated:	31-May-2007
Point of Contact (Name/Phone):	William Graney/206-764-3494

Project Phase ("X" only one):									
		PA	**X**	**SI**		**RI**		**FS**		**RD**
		RA-C		**RIP**		**RA-O**		**RC**		**LTM**

Media Evaluated ("X" all that apply):				
	X	**Groundwater (human receptor)**	**X**	**Sediment (human receptor)**
	X	**Surface soil (human receptor)**		**Surface water (ecological receptor)**
	X	**Sediment (ecological receptor)**		**Surface water (human receptor)**

MRS Summary

MRS Description: Describe the munitions-related activities that occurred at the installation, the dates of operation, and the UXO, DMM (by type of munition, if known) or munitions constituents (by type, if known) known or suspected to be present):

MRS No. 10 consists entirely of Mortar Range. The MRS was used by Camp Adair between 1942 and 1945. The range was used for mortar firing and likely used 60mm HE rounds. The range crosses over several small arms ranges associated with Range Complex No 4 (MRS No. 9). Potential contaminants include select metals from mortar round and explosives. The range area is currently used for cattle grazing and residences.

Description of Pathways for Human and Ecological Receptors:

The pathways evaluated with respect to MRS No. 10 are: terrestrial for humans (agricultural workers and residents) and ecological (ingestion and uptake by wildlife and plants), and groundwater for humans (direct and ingestion by agricultural workers and residents).

Description of Receptors (Human and Ecological):

Receptors in the MRS No. 10 include agricultural workers, residents, plants, and wildlife.

Table 1
EHE Module: Munitions Type Data Element Table

Directions: Below are eleven classifications of munitions and their descriptions. Annotate the score(s) that correspond with **all** munitions types known or suspected to be present at the MRS.

Note: The terms *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Sensitive	All UXO that are considered likely to function upon any interaction with exposed persons [e.g., submunitions, 40mm high-explosive (HE) grenades, white phosphorous (WP) munitions, high-explosive antitank (HEAT) munitions, and practice munitions with sensitive fuzes, but excluding all other practice munitions].	30	
	All hand grenades containing energetic filler.		
	Bulk primary explosives, or mixtures of these with environmental media, such that the mixture poses an explosive hazard.		
High explosive (used or damaged)	All UXO containing a high-explosive filler (e.g., RDX, Composition B), that are not considered "sensitive."	25	25
	All DMM containing a high-explosive filler that have been damaged by burning or detonation, or deteriorated to the point of instability.		
Pyrotechnic (used or damaged)	All UXO containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades).	20	
	All DMM containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades) that have been damaged by burning or detonation, or deteriorated to the point of instability.		
High explosive (unused)	All DMM containing a high-explosive filler that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	15	15
Propellant	All UXO containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor).	15	15
	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor) that are damaged by burning or detonation, or deteriorated to the point of instability.		
Bulk secondary high explosives, pyrotechnics, or propellant	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor), that are deteriorated.	10	
	Bulk secondary high explosives, pyrotechnic compositions, or propellant (not contained in a munition), or mixtures of these with environmental media such that the mixture poses an explosive hazard.		
Pyrotechnic (not used or damaged)	All DMM containing a pyrotechnic filler (i.e. red phosphorous), other than white phosphorous filler, that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	10	
Practice	All UXO that are practice munitions that are not associated with a sensitive fuze.	5	
	All DMM that are practice munitions that are not associated with a sensitive fuze and that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.		
Riot control	All UXO or DMM containing a riot control agent filler (e.g., tear gas).	3	
Small arms	All used munitions or DMM that are categorized as small arms ammunition [Physical evidence or historical evidence that no other types of munitions (e.g., grenades, subcaliber training rockets, demolition charges) were used or are present on the MRS is required for selection of this category.].	2	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
MUNITIONS TYPE	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**25**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Munitions Type*** classifications in the space below.

The ASR Site Inspection team inspected the MRS No. 10 (Mortar Range). The team did not uncover any munitions debris or hazards. A dud 60mm round was reportedly found in the vicinity by others (2007 SI Report, Table 2-3, Figure 5-10). The 2006 SI field team did not observe any ordnance or explosives during site sampling activities.

Table 2

EHE Module: Source of Hazard Data Element Table

Directions: Below are eleven classifications describing sources of explosive hazards. Annotate the score(s) that correspond with **all** sources of explosive hazards known or suspected to be present at the MRS.

Note: The terms *former range* , *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Former range	The MRS is a former military range where munitions (including practice munitions with sensitive fuzes) have been used. Such areas include: impact or target areas, associated buffer and safety zones, firing points, and live-fire maneuver areas.	10	10
Former munitions treatment (i.e. OB/OD) unit	The MRS is a location where UXO or DMM (e.g., munitions, bulk explosives, bulk pyrotechnic, or bulk propellants) were burned or detonated for the purpose of treatment prior to disposal.	8	
Former practice munitions range	The MRS is a former military range on which only practice munitions without sensitive fuzes were used.	6	
Former maneuver area	The MRS is a former maneuver area where no munitions other than flares, simulators, smokes, and blanks were used. There must be evidence that no other munitions were used at the location to place an MRS into this category.	5	
Former burial pit or other disposal area	The MRS is a location where DMM were buried or disposed of (e.g., disposed of into a water body) without prior thermal treatment.	5	
Former industrial operating facilities	The MRS is a location that is a former munitions maintenance, manufacturing, or demilitarization facility.	4	
Former firing points	The MRS is a firing point, where the firing point is delineated as an MRS separate from the rest of a former military range.	4	
Former missile or air defense artillery emplacements	The MRS is a former missile defense or air defense artillery (ADA) emplacement not associated with a military range.	2	
Former storage or transfer points	The MRS is a location where munitions were stored or handled for transfer between different modes of transportation (e.g., rail to truck, truck to weapon system).	2	
Former small arms range	The MRS is a former military range where only small arms ammunition was used [There must be evidence that no other types of munitions (e.g., grenades) were used or are present to place an MRS iinto this category.].	1	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that no UXO or DMM are present, or there is historical evidence indicating that no UXO or DMM are present.	0	
SOURCE OF HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**10**

DIRECTIONS: Document any MRS-specific data used in selecting the **Source of Hazard** classifications in the space below.

MRS No. 10 consists entirely of Mortar Range. The MRS was used by Camp Adair between 1942 and 1945. The range was used for mortar firing and likely used 60mm HE rounds (Table 2-1). The range crosses over several small arms ranges associated with Range Complex No 4 (MRS No. 9).

Table 3
EHE Module: Location of Munitions Data Element Table

Directions: Below are eight classifications of munitions locations and their descriptions. Annotate the score(s) that correspond with **all** locations where munitions are located or suspected of being found at the MRS.

Note: The terms *surface* , *subsurface* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Confirmed surface	Physical evidence indicates that there are UXO or DMM on the surface of the MRS. Historical evidence (e.g., a confirmed incident report or accident report) indicates there are UXO or DMM on the surface of the MRS.	25	
Confirmed subsurface, active	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM.	20	
Confirmed subsurface, stable	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed.	15	
Suspected (physical evidence)	There is physical evidence (e.g., munitions debris, such fragments, penetrators, projectiles, shell casings, links, fins), other than the documented presence of UXO or DMM, indicating that UXO or DMM may be present at the MRS.	10	
Suspected (historical evidence)	There is historical evidence indicating that UXO or DMM may be present at the MRS.	5	5
Subsurface, physical constraint	There is physical or historical evidence indicating that UXO or DMM may be present in the subsurface, but there is a physical constraint (e.g., pavement, water depth over 120 feet) preventing direct access to the UXO or DMM.	2	
Small arms (regardless of location)	The presence of small arms ammunition is confirmed or suspected, regardless of other factors such as geological stability [There must be evidence that no other types of munitions (e.g., grenades) were used or are present at the MRS to place an MRS into this category.]	1	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
LOCATION OF MUNITIONS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 25).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Location of Munitions*** classifications in the space below.

The ASR Site Inspection team inspected the MRS No. 10 (Mortar Range). The team did not uncover any munitions debris or hazards. A dud 60mm round was reportedly found in the vicinity by others (2007 SI Report, Table 2-3). The 2006 SI field team did not observe any ordnance or explosives during site sampling activities.

Table 4
EHE Module: Ease of Access Data Element Table

Directions: Below are four classifications of barrier types that can surround an MRS and their descriptions. The barrier type is directly related to the ease of public access to any explosive materiel. Annotate the score that corresponds with the ease of access to the MRS.

Note: The term *barrier* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
No barrier	There is no barrier preventing access to any part of the MRS (i.e. all parts of the MRS are accessible).	10	10
Barrier to MRS access is incomplete	There is a barrier preventing access to parts of the MRS, but not the entire MRS.	8	
Barrier to MRS access is complete but not monitored	There is a barrier preventing access to all parts of the MRS, but there is no surveillance (e.g., by a guard) to ensure that the barrier is effectively preventing access to all parts of the MRS.	5	
Barrier to MRS access is complete and monitored	There is a barrier preventing access to all parts of the MRS, and there is active, continual surveillance (e.g., by a guard, video monitoring) to ensure that the barrier is effectively preventing access to all parts of the MRS.	0	
EASE OF ACCESS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**10**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ease of Access*** classification in the space below.

As of August 2006, there is no fencing or signage restricting or limiting access to the area by the general public (2007 SI Report, Section 4.2.2).

Table 5
EHE Module: Status of Property Data Element Table

Directions: Below are three classifications of the status of a property within the Department of Defense (DoD) and their descriptions. Annotate the score that corresponds with the status of property at the MRS.

Note: N/A

Classification	Description	Possible Score	Score
Non-DoD control	The MRS is at a location that is no longer owned by, leased to, or otherwise possessed or used by DoD. Examples are privately owned land or water bodies; land or water bodies owned or controlled by state, tribal, or local governments; and land or water bodies managed by other federal agencies.	5	5
Scheduled for transfer from DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD, and DoD plans to transfer that land or water body to the control of another entity (e.g., a state, tribal, or local government; a private party; another federal agency) within 3 years from the date the rule is applied.	3	
DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD. With respect to property that is leased or otherwise possessed, DoD must control access to the MRS 24 hours per day, every day of the calendar year.	0	
STATUS OF PROPERTY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Status of Property*** classification in the space below.

Camp Adair was acquired by the Army beginning in 1941. In 1946, the War Department declared Camp Adair surplus and was assigned to the War Assets Administration for disposition under the Surplus Property Act. In 1946, the property was transferred to the Department of Agriculture for sale by the Federal Land Bank. The property is currently owned by Oregon State University. There is no controlled access to the MRS.

Table 6
EHE Module: Population Density Data Element Table

Directions: Below are three classifications of population density and their descriptions. Determine the population density per square mile in the vicinity of the MRS and annotate the score that corresponds with the associated population density.

Note: If an MRS is located in more than one county, use the largest population density value among the counties. If the MRS is within or borders a city or town, use the population density for the city or town, rather than that of the county.

Classification	Description	Possible Score	Score
> 500 persons per square mile	There are more than 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	5	
100 - 500 persons per square mile	There are 100 to 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	3	
< 100 persons per square mile	There are fewer than 100 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	1	1
POPULATION DENSITY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**1**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Density*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 7
EHE Module: Population Near Hazard Data Element Table

Directions: Below are six classifications describing the number of inhabited structures near the MRS. The number of inhabited buildings relates to the population near the hazard. Determine the number of inhabited structures within two miles of the MRS boundary and annotate the score that corresponds with the associated population near the known or suspected hazard.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
26 or more inhabited structures	There are 26 or more inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	5	5
16 to 25 inhabited structures	There are 16 to 25 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	4	
11 to 15 inhabited structures	There are 11 to 15 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	3	
6 to 10 inhabited structures	There are 6 to 10 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	2	
1 to 5 inhabited structures	There are 1 to 5 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	1	
0 inhabited structures	There are no inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	0	
POPULATION NEAR HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Near Hazard*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 8

EHE Module: Types of Activities/Structures Data Element Table

Directions: Below are five classifications of activities and/or inhabited structures near the hazard and their descriptions. Review the types of activities that occur and/or structures that are present within two miles of the MRS and annotate the score(s) that correspond with **all** the activities/structure classifications at the MRS.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Residential, educational, commercial, or subsistence	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with any of the following purposes: residential, educational, child care, critical assets (e.g., hospitals, fire and rescue, police stations, dams), hotels, commercial, shopping centers, playgrounds, community gathering areas, religious sites, or sites used for subsistence hunting, fishing, and gathering.	5	5
Parks and recreational areas	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with parks, nature preserves, or other recreational uses.	4	4
Agricultural, forestry	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with agriculture or forestry.	3	3
Industrial or warehousing	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with industrial activities or warehousing.	2	
No known or recurring activities	There are no known or recurring activities occurring up to two miles from the MRS's boundary or within the MRS's boundary.	1	
TYPES OF ACTIVITIES/STRUCTURES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Types of Activities/Structures*** classifications in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 9

EHE Module: Ecological and/or Cultural Resources Data Element Table

Directions: Below are four classifications of ecological and/or cultural resources and their descriptions. Review the types of resources present and annotate the score that corresponds with the ecological and/or cultural resource classifications at the MRS.

Note: The terms *ecological resources* and *cultural resources* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Ecological and cultural resources present	There are both ecological and cultural resources present on the MRS.	5	
Ecological resources present	There are ecological resources present on the MRS.	3	3
Cultural resources present	There are cultural resources present on the MRS.	3	
No ecological or cultural resources present	There are no ecological resources or cultural resources present on the MRS.	0	
ECOLOGICAL AND/OR CULTURAL RESOURCES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**3**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ecological and/or Cultural Resources*** classification in the space below.

The State Historic Preservation Office (SHPO), U.S. Forest Service (USFS), and the Oregon Department of Fish and Wildlife (ODFW) were contacted regarding cultural and natural resources. The SHPO indicated that no potential cultural/archaeological resources were within the currently identified MRS No. 10. The ODFW, Oregon Department of Agriculture, and the U.S. Fish and Wildlife Service were contacted regarding identification of any potentially impacted, threatened, or endangered species at Camp Adair. Two plant species are known to grow in the Camp Adair area. However, the agencies were not concerned with the proposed site activities because of the fact they were minimally invasive (2007 SI Report, Sections 2.4.7, 3.2.1 and 3.2.2).

Table 10

Determining the EHE Module Rating

DIRECTIONS:

1. From Tables 01 - 09, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **EHE Module Total** box below.

	Source	Score	Value
Explosive Hazard Factor Data Elements			
Munitions Type	Table 01	25	35
Source of Hazard	Table 02	10	
Accessibility Factor Data Elements			
Location of Munitions	Table 03	5	20
Ease of Access	Table 04	10	
Status of Property	Table 05	5	
Receptor Factor Data Elements			
Population Density	Table 06	1	14
Population Near Hazard	Table 07	5	
Types of Activities/Structures	Table 08	5	
Ecological and/or Cultural Resources	Table 09	3	
EHE MODULE TOTAL			**69**

4. Identify the appropriate range for the **EHE Module Total** at right.

5. Identify the **EHE Module Rating** that corresponds to the range selected and record this rating in the **EHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

EHE Module Total	EHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected Explosive Hazard
EHE MODULE RATING	**D**

Table 11

CHE Module: CWM Configuration Data Element Table

Directions: Below are seven classifications of CWM configuration and their descriptions. Annotate the score(s) that correspond to **all** CWM configurations known or suspected to be present at the MRS.

Note: The terms *CWM/UXO*, *CWM/DMM*, *physical evidence*, and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
CWM, explosive configuration either UXO or damaged DMM	The CWM known or suspected of being present at the MRS is (a) explosively configured CWM that are UXO (i.e. CWM/UXO), or (b) explosively configured CWM that are DMM (i.e. CWM/DMM) that have been damaged.	30	
CWM mixed with UXO	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged, or nonexplosively configured CWM/DMM, or CWM not configured as a munition, that are commingled with conventional munitions that are UXO.	25	
CWM, explosive configuration that are undamaged DMM	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged.	20	
CWM, not explosively configured or CWM, bulk container	The CWM known or suspected of being present at the MRS is (a) nonexplosively configured CWM/DMM, or (b) bulk CWM/DMM (e.g., ton container).	15	
CAIS K941 and CAIS K942	The CWM/DMM known or suspected of being present at the MRS is CAIS K941(toxic gas set M-1) or CAIS K942 (toxic gas set M-2/E11).	12	
CAIS (chemical agent identification sets)	Only CAIS, other than CAIS K941 and K942, are known or suspected of being present at the MRS.	10	
Evidence of no CWM	Following investigation, the physical evidence indicates that CWM are not present at the MRS, or the historical evidence indicates that CWM are not present at the MRS.	0	0
CWM CONFIGURATION	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**0**

DIRECTIONS: Document any MRS-specific data used in selecting the ***CWM Configuration*** classifications in the space below.

As there are no records of CWM munitions being used or found at MRA/MRS No. 10

Table 20

Determining the CHE Module Rating

DIRECTIONS:

1. From Tables 11 - 19, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **CHE Module Total** box below.

	Source	Score	Value
CWM Hazard Factor Data Elements			
CWM Configuration	Table 11	0	0
Sources of CWM	Table 12	0	
Accessibility Factor Data Elements			
Location of CWM	Table 13	0	0
Ease of Access	Table 14	0	
Status of Property	Table 15	0	
Receptor Factor Data Elements			
Population Density	Table 16	0	0
Population Near Hazard	Table 17	0	
Types of Activities/Structures	Table 18	0	
Ecological and/or Cultural Resources	Table 19	0	
		CHE MODULE TOTAL	**0**

4. Identify the appropriate range for the **CHE Module Total** at right.

5. Identify the **CHE Module Rating** that corresponds to the range selected and record this rating in the **CHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

CHE Module Total	CHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected CWM Hazard
CHE MODULE RATING	**No Known or Suspected CWM Hazard**

Table 21

HHE Module: Groundwater Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's groundwater and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the groundwater, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
		Sum the Ratios	

CHF Scale	CHF Value
CHF > 100	H (High)
100 > CHF >2	M (Medium)
2 > CHF	L (Low)

$CHF = \sum$ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the groundwater migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the groundwater is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in groundwater has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the groundwater to a potential point of exposure (possibly due to geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the groundwater receptors at the MRS.

Classification	Description	Value
Identified	There is a threatened water supply well downgradient of the source and the groundwater is a current source of drinking water or source of water for other beneficial uses such as irrigation/agriculture (equivalent to Class I or IIA aquifer).	H
Potential	There is no threatened water supply well downgradient of the source and the groundwater is currently or potentially usable for drinking water, irrigation, or agriculture (equivalent to Class I, IIA, or IIB aquifer).	M
Limited	There is no potentially threatened water supply well downgradient of the source and the groundwater is not considered a potential source of drinking water and is of limited beneficial use (equivalent to Class IIIA or IIIB aquifer, or where perched aquifer exists only).	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Groundwater MC Hazard	**X**

Table 22

HHE Module: Surface Water - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface water, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Human Endpoint) MC Hazard	**X**

Table 23

HHE Module: Sediment - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the site's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for human endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		
CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).		

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	
Place an "X" in the box to the right if there is no known or suspected Sediment (Human Endpoint) MC Hazard		**X**

Table 24

HHE Module: Surface Water - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the surface water, select the box at the bottom of the table.

Note: Use either dissolved or total metals analyses.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		
CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).		

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Ecological Endpoint) MC Hazard	**X**

Table 25

HHE Module: Sediment - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Sediment (Ecological Endpoint) MC Hazard	**X**

Table 26

HHE Module: Surface Soil - Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface soil and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface soil, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
7440-73-9 (Cadmium)	1.00	38.00	0
7440-47-3 (Chromium)	175.00	3,000.00	0
7440-24-6 (Strontium)	89.30	46,000.00	0
		Total from Table 27	
		Sum the Ratios	0

CHF Scale	CHF Value
CHF > 100	H (High)
100 > CHF >2	M (Medium)
2 > CHF	L (Low)

CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	**L**

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface soil migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface soil is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface soil has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface soil to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	**M**

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface soil receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface soil to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface soil to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface soil to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	**H**

Place an "X" in the box to the right if there is no known or suspected Surface Soil MC Hazard	

Table 27

HHE Module: Supplemental Contaminant Hazard Factor Table

Contaminant Hazard Factor (CHF)

Directions: **Only use this table if there are more than five contaminants present at the MRS.** This is a supplemental table designed to hold information about contaminants that do not fit in the previous tables. Indicate the **media** in which these contaminants are present. Then record all **contaminants**, their **maximum concentrations** and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Calculate and record the **ratio** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** for each medium on the appropriate media-specific tables.

Note: For human exposures to groundwater and surface water, use dissolved, rather than total, metals analyses when both are available. Remember not to add ratios from different media.

Media	Contaminant [CAS No.]	Maximum Concentration	Units	Comparison Value	Units	Ratios
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
					SUBTOTAL FOR SURFACE SOIL	**0**
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
					SUBTOTAL FOR SEDIMENT	**0**
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
					SUBTOTAL FOR SURFACE WATER	**0**
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
					SUBTOTAL FOR GROUNDWATER	**0**

Table 28

Determining the HHE Module Rating

DIRECTIONS:

1. Record the letter values (H, M, L) for the **Contaminant Hazard**, **Migration Pathway**, and **Receptor Factors** for the media (from Tables 21 - 26) in the corresponding boxes below.
2. Record the media's three-letter combinations in the **Three-Letter-Combination** boxes below (three-letter combinations are arranged from Hs to Ms to Ls).
3. Using the reference provided below, determine each medium's rating (A - G) and record the letter in the corresponding **Media Rating** box below.

Medium (Source)	Contaminant Hazard Factor Value	Migratory Pathway Factor Value	Receptor Factor Value	Three-Letter Combination (Hs-Ms-Ls)	Media Rating (A - G)
Table 21 - Groundwater					
Table 22 - Surface Water (Human Endpoint)					
Table 23 - Sediment (Human Endpoint)					
Table 24 - Surface Water (Ecological Endpoint)					
Table 25 - Sediment (Ecological Endpoint)					
Table 26 - Surface Soil	L	M	H	HML	D
			HHE MODULE RATING		**D**

DIRECTIONS (Continued):

4. Select the single highest **Media Rating** (A is the highest; G is the lowest) and enter the letter in the **HHE Module Rating** box below.

HHE Ratings (for reference only)	
HHH	A
HHM	B
HHL	C
HMM	
HML	D
MMM	
HLL	E
MML	
MLL	F
LLL	G

NOTE: An alternative module rating may be assigned when a module letter rating is used when more information is needed to score one or more media, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

Alternative Module Ratings	
	Evaluation Pending
	No Longer Required
	No Known or Suspected MC Hazard

Table 29

MRS Priority

DIRECTIONS: In the chart below, enter the letter **rating** for each module recorded in Table 10 (EHE), Table 20 (CHE), and Table 28 (HHE). Enter the corresponding numerical **priority** for each module. If information to determine the module rating is not available, choose the appropriate alternative module rating. The MRS priority is the single highest priority; record this number in the **MRS or Alternative Priority** box at the bottom of the table.

NOTE: An MRS assigned Priority 1 has the highest relative priority; an MRS assigned Priority 8 has the lowest relative priority. Only an MRS with CWM known or suspected to be present can be assigned Priority 1; an MRS that has CWM known or suspected to be present cannot be assigned Priority 8.

EHE Rating	Priority	CHE Rating	Priority	HHE Rating	Priority
		A	1		
A	2	B	2	A	2
B	3	C	3	B	3
C	4	D	4	C	4
D	5	E	5	D	5
E	6	F	6	E	6
F	7	G	7	F	7
G	8			G	8
Evaluation Pending		Evaluation Pending		Evaluation Pending	
No Longer Required		No Longer Required		No Longer Required	
No Known or Suspected Explosive Hazard		No Known or Suspected CWM Hazard		No Known or Suspected MC Hazard	

Reference Table 10:		Reference Table 20:		Reference Table 28:	
EHE Module Rating	Priority	CHE Module Rating	Priority	HHE Module Rating	Priority
D	5	No Known or Suspected CWM Hazard	No Known or Suspected CWM Hazard	D	5

MRS or Alternative Priority	5

Table A

MRS Background Information

DIRECTIONS: Record the background information below for the MRS to be evaluated. Much of this information is available from DoD databases, such as RMIS. If the MRS is located on a FUDS property, the suitable FUDS property information should be substituted. In the MRS summary, briefly describe the UXO, DMM, or MC that are known or suspected to be present, the exposure setting (the MRS's physical environment), any other incidental non-munitions related contaminants found at the MRS (e.g., benzene, trichloroethylene), and any potentially exposed human and ecological receptors. Include a map of the MRS, if one is available.

Munitions Response Site (MRS) Name:	**MRS No. 11, Range Complex No. 5**
Component:	US Army
Installation/Property Name:	**Camp Adair/Adair Air Force Station**
Location (City, County, State):	Benton County, Oregon
UTM Coordinates (NAD83):	N 4950325.53, E 481418.10
Site Name (RMIS ID):	Range Complex No. 5 (F10OR002903R20)
Project Name (Project No.):	Formerly Used Defense Sites, Military Munitions Response Program Site Inspections at Multiple Sites (116188)
Date Information Entered/Updated:	31-May-2007
Point of Contact (Name/Phone):	William Graney/206-764-3494

Project Phase ("X" only one):									
		PA	**X**	**SI**		**RI**		**FS**		**RD**
		RA-C		**RIP**		**RA-O**		**RC**		**LTM**

Media Evaluated ("X" all that apply):				
	X	**Groundwater (human receptor)**		**Sediment (human receptor)**
	X	**Surface soil (human receptor)**		**Surface water (ecological receptor)**
		Sediment (ecological receptor)		**Surface water (human receptor)**

MRS Summary

MRS Description: Describe the munitions-related activities that occurred at the installation, the dates of operation, and the UXO, DMM (by type of munition, if known) or munitions constituents (by type, if known) known or suspected to be present):

MRS No. 11 consists entirely of Range Complex No. 5 and was used by Camp Adair 1942 and 1945. The MRS is comprised of 5 subranges. The range was used only for small arms training. Potential contaminants include lead from bullets and perchorate using in tracer rounds. The range area is currently used as for small agricultural crop growing operations and residences.

Description of Pathways for Human and Ecological Receptors:

The pathways evaluated with respect to MRS No. 11 are: terrestrial for humans (direct contact by forest workers, agricultural workers, and residents) and groundwater for humans (direct and ingestion by agricultural workers and residents).

Description of Receptors (Human and Ecological):

Receptors in the area of MRS No. 11 include agricultural workers, residents, plants, and wildlife.

Table 1
EHE Module: Munitions Type Data Element Table

Directions: Below are eleven classifications of munitions and their descriptions. Annotate the score(s) that correspond with **all** munitions types known or suspected to be present at the MRS.

Note: The terms *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Sensitive	All UXO that are considered likely to function upon any interaction with exposed persons [e.g., submunitions, 40mm high-explosive (HE) grenades, white phosphorous (WP) munitions, high-explosive antitank (HEAT) munitions, and practice munitions with sensitive fuzes, but excluding all other practice munitions].	30	
	All hand grenades containing energetic filler.		
	Bulk primary explosives, or mixtures of these with environmental media, such that the mixture poses an explosive hazard.		
High explosive (used or damaged)	All UXO containing a high-explosive filler (e.g., RDX, Composition B), that are not considered "sensitive."	25	
	All DMM containing a high-explosive filler that have been damaged by burning or detonation, or deteriorated to the point of instability.		
Pyrotechnic (used or damaged)	All UXO containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades).	20	
	All DMM containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades) that have been damaged by burning or detonation, or deteriorated to the point of instability.		
High explosive (unused)	All DMM containing a high-explosive filler that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	15	
Propellant	All UXO containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor).	15	
	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor) that are damaged by burning or detonation, or deteriorated to the point of instability.		
Bulk secondary high explosives, pyrotechnics, or propellant	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor), that are deteriorated.	10	
	Bulk secondary high explosives, pyrotechnic compositions, or propellant (not contained in a munition), or mixtures of these with environmental media such that the mixture poses an explosive hazard.		
Pyrotechnic (not used or damaged)	All DMM containing a pyrotechnic filler (i.e. red phosphorous), other than white phosphorous filler, that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	10	
Practice	All UXO that are practice munitions that are not associated with a sensitive fuze.	5	
	All DMM that are practice munitions that are not associated with a sensitive fuze and that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.		
Riot control	All UXO or DMM containing a riot control agent filler (e.g., tear gas).	3	
Small arms	All used munitions or DMM that are categorized as small arms ammunition [Physical evidence or historical evidence that no other types of munitions (e.g., grenades, subcaliber training rockets, demolition charges) were used or are present on the MRS is required for selection of this category.].	2	2
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
MUNITIONS TYPE	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**2**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Munitions Type*** classifications in the space below.

The ASR Site Inspection team inspected the MRS No. 11 area. The team reported no ordnance or explosives were found at the MRS. The 2006 SI field team inspected MRS No. 11 area did not identify any ordnance or explosives. There have been no reports of MEC or munitions debris from this MRS (2007 SI Report, Section 4.1.1).

Table 2

EHE Module: Source of Hazard Data Element Table

Directions: Below are eleven classifications describing sources of explosive hazards. Annotate the score(s) that correspond with **all** sources of explosive hazards known or suspected to be present at the MRS.

Note: The terms *former range* , *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Former range	The MRS is a former military range where munitions (including practice munitions with sensitive fuzes) have been used. Such areas include: impact or target areas, associated buffer and safety zones, firing points, and live-fire maneuver areas.	10	
Former munitions treatment (i.e. OB/OD) unit	The MRS is a location where UXO or DMM (e.g., munitions, bulk explosives, bulk pyrotechnic, or bulk propellants) were burned or detonated for the purpose of treatment prior to disposal.	8	
Former practice munitions range	The MRS is a former military range on which only practice munitions without sensitive fuzes were used.	6	
Former maneuver area	The MRS is a former maneuver area where no munitions other than flares, simulators, smokes, and blanks were used. There must be evidence that no other munitions were used at the location to place an MRS into this category.	5	
Former burial pit or other disposal area	The MRS is a location where DMM were buried or disposed of (e.g., disposed of into a water body) without prior thermal treatment.	5	
Former industrial operating facilities	The MRS is a location that is a former munitions maintenance, manufacturing, or demilitarization facility.	4	
Former firing points	The MRS is a firing point, where the firing point is delineated as an MRS separate from the rest of a former military range.	4	
Former missile or air defense artillery emplacements	The MRS is a former missile defense or air defense artillery (ADA) emplacement not associated with a military range.	2	
Former storage or transfer points	The MRS is a location where munitions were stored or handled for transfer between different modes of transportation (e.g., rail to truck, truck to weapon system).	2	
Former small arms range	The MRS is a former military range where only small arms ammunition was used [There must be evidence that no other types of munitions (e.g., grenades) were used or are present to place an MRS iinto this category.].	1	1
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that no UXO or DMM are present, or there is historical evidence indicating that no UXO or DMM are present.	0	
SOURCE OF HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**1**

DIRECTIONS: Document any MRS-specific data used in selecting the **Source of Hazard** classifications in the space below.

MRS No. 11 consists entirely of Range Complex No. 5 and was used by Camp Adair 1942 and 1945. The MRS is comprised of 5 subranges. The range was used only for small arms training (2007 SI Report, Section 4.1.1).

Table 3
EHE Module: Location of Munitions Data Element Table

Directions: Below are eight classifications of munitions locations and their descriptions. Annotate the score(s) that correspond with **all** locations where munitions are located or suspected of being found at the MRS.

Note: The terms *surface* , *subsurface* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Confirmed surface	Physical evidence indicates that there are UXO or DMM on the surface of the MRS. Historical evidence (e.g., a confirmed incident report or accident report) indicates there are UXO or DMM on the surface of the MRS.	25	
Confirmed subsurface, active	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM.	20	
Confirmed subsurface, stable	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed.	15	
Suspected (physical evidence)	There is physical evidence (e.g., munitions debris, such fragments, penetrators, projectiles, shell casings, links, fins), other than the documented presence of UXO or DMM, indicating that UXO or DMM may be present at the MRS.	10	
Suspected (historical evidence)	There is historical evidence indicating that UXO or DMM may be present at the MRS.	5	
Subsurface, physical constraint	There is physical or historical evidence indicating that UXO or DMM may be present in the subsurface, but there is a physical constraint (e.g., pavement, water depth over 120 feet) preventing direct access to the UXO or DMM.	2	
Small arms (regardless of location)	The presence of small arms ammunition is confirmed or suspected, regardless of other factors such as geological stability [There must be evidence that no other types of munitions (e.g., grenades) were used or are present at the MRS to place an MRS into this category.]	1	1
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
LOCATION OF MUNITIONS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 25).		**1**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Location of Munitions*** classifications in the space below.

The ASR Site Inspection team inspected the MRS No. 11 area. The team reported no ordnance or explosives were found at the MRS. The 2006 SI field team inspected MRS No. 11 area and did not identify any ordnance or explosives.

Table 4
EHE Module: Ease of Access Data Element Table

Directions: Below are four classifications of barrier types that can surround an MRS and their descriptions. The barrier type is directly related to the ease of public access to any explosive materiel. Annotate the score that corresponds with the ease of access to the MRS.

Note: The term *barrier* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
No barrier	There is no barrier preventing access to any part of the MRS (i.e. all parts of the MRS are accessible).	10	10
Barrier to MRS access is incomplete	There is a barrier preventing access to parts of the MRS, but not the entire MRS.	8	
Barrier to MRS access is complete but not monitored	There is a barrier preventing access to all parts of the MRS, but there is no surveillance (e.g., by a guard) to ensure that the barrier is effectively preventing access to all parts of the MRS.	5	
Barrier to MRS access is complete and monitored	There is a barrier preventing access to all parts of the MRS, and there is active, continual surveillance (e.g., by a guard, video monitoring) to ensure that the barrier is effectively preventing access to all parts of the MRS.	0	
EASE OF ACCESS	**DIRECTIONS:** Record **<u>the single highest score</u>** from above in the box to the right (maximum score = 10).		**10**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ease of Access*** classification in the space below.

As of August 2006, there is no fencing or signage restricting or limiting access to the area by the general public.

Table 5
EHE Module: Status of Property Data Element Table

Directions: Below are three classifications of the status of a property within the Department of Defense (DoD) and their descriptions. Annotate the score that corresponds with the status of property at the MRS.

Note: N/A

Classification	Description	Possible Score	Score
Non-DoD control	The MRS is at a location that is no longer owned by, leased to, or otherwise possessed or used by DoD. Examples are privately owned land or water bodies; land or water bodies owned or controlled by state, tribal, or local governments; and land or water bodies managed by other federal agencies.	5	5
Scheduled for transfer from DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD, and DoD plans to transfer that land or water body to the control of another entity (e.g., a state, tribal, or local government; a private party; another federal agency) within 3 years from the date the rule is applied.	3	
DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD. With respect to property that is leased or otherwise possessed, DoD must control access to the MRS 24 hours per day, every day of the calendar year.	0	
STATUS OF PROPERTY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Status of Property*** classification in the space below.

Camp Adair was acquired by the Army beginning in 1941. In 1946, the War Department declared Camp Adair surplus and was assigned to the War Assets Administration for disposition under the Surplus Property Act. In 1946, the property was transferred to the Department of Agriculture for sale by the Federal Land Bank. As of 2006, property ownership is by private citizens.

Table 6
EHE Module: Population Density Data Element Table

Directions: Below are three classifications of population density and their descriptions. Determine the population density per square mile in the vicinity of the MRS and annotate the score that corresponds with the associated population density.

Note: If an MRS is located in more than one county, use the largest population density value among the counties. If the MRS is within or borders a city or town, use the population density for the city or town, rather than that of the county.

Classification	Description	Possible Score	Score
> 500 persons per square mile	There are more than 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	5	
100 - 500 persons per square mile	There are 100 to 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	3	
< 100 persons per square mile	There are fewer than 100 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	1	1
POPULATION DENSITY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**1**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Density*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 7
EHE Module: Population Near Hazard Data Element Table

Directions: Below are six classifications describing the number of inhabited structures near the MRS. The number of inhabited buildings relates to the population near the hazard. Determine the number of inhabited structures within two miles of the MRS boundary and annotate the score that corresponds with the associated population near the known or suspected hazard.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
26 or more inhabited structures	There are 26 or more inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	5	5
16 to 25 inhabited structures	There are 16 to 25 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	4	
11 to 15 inhabited structures	There are 11 to 15 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	3	
6 to 10 inhabited structures	There are 6 to 10 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	2	
1 to 5 inhabited structures	There are 1 to 5 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	1	
0 inhabited structures	There are no inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	0	
POPULATION NEAR HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Near Hazard*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 8

EHE Module: Types of Activities/Structures Data Element Table

Directions: Below are five classifications of activities and/or inhabited structures near the hazard and their descriptions. Review the types of activities that occur and/or structures that are present within two miles of the MRS and annotate the score(s) that correspond with **all** the activities/structure classifications at the MRS.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Residential, educational, commercial, or subsistence	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with any of the following purposes: residential, educational, child care, critical assets (e.g., hospitals, fire and rescue, police stations, dams), hotels, commercial, shopping centers, playgrounds, community gathering areas, religious sites, or sites used for subsistence hunting, fishing, and gathering.	5	5
Parks and recreational areas	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with parks, nature preserves, or other recreational uses.	4	4
Agricultural, forestry	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with agriculture or forestry.	3	3
Industrial or warehousing	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with industrial activities or warehousing.	2	
No known or recurring activities	There are no known or recurring activities occurring up to two miles from the MRS's boundary or within the MRS's boundary.	1	
TYPES OF ACTIVITIES/STRUCTURES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Types of Activities/Structures*** classifications in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 9

EHE Module: Ecological and/or Cultural Resources Data Element Table

Directions: Below are four classifications of ecological and/or cultural resources and their descriptions. Review the types of resources present and annotate the score that corresponds with the ecological and/or cultural resource classifications at the MRS.

Note: The terms *ecological resources* and *cultural resources* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Ecological and cultural resources present	There are both ecological and cultural resources present on the MRS.	5	
Ecological resources present	There are ecological resources present on the MRS.	3	3
Cultural resources present	There are cultural resources present on the MRS.	3	
No ecological or cultural resources present	There are no ecological resources or cultural resources present on the MRS.	0	
ECOLOGICAL AND/OR CULTURAL RESOURCES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**3**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ecological and/or Cultural Resources*** classification in the space below.

The State Historic Preservation Office (SHPO), U.S. Forest Service (USFS), and the Oregon Department of Fish and Wildlife (ODFW) were contacted regarding cultural and natural resources. The SHPO indicated that no potential cultural/archaeological resources were within the currently identified MRS No. 11. The ODFW, Oregon Department of Agriculture, and the U.S. Fish and Wildlife Service were contacted regarding identification of any potentially impacted, threatened, or endangered species at Camp Adair. Two plant species are known to grow in the Camp Adair area. However, the agencies were not concerned with the proposed site activities because of the fact they were minimally invasive (2007 SI Report, Sections 2.4.7, 3.2.1 and 3.2.2).

Table 10

Determining the EHE Module Rating

DIRECTIONS:

1. From Tables 01 - 09, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **EHE Module Total** box below.

4. Identify the appropriate range for the **EHE Module Total** at right.

5. Identify the **EHE Module Rating** that corresponds to the range selected and record this rating in the **EHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

	Source	Score	Value
Explosive Hazard Factor Data Elements			
Munitions Type	Table 01	2	3
Source of Hazard	Table 02	1	
Accessibility Factor Data Elements			
Location of Munitions	Table 03	1	16
Ease of Access	Table 04	10	
Status of Property	Table 05	5	
Receptor Factor Data Elements			
Population Density	Table 06	1	14
Population Near Hazard	Table 07	5	
Types of Activities/Structures	Table 08	5	
Ecological and/or Cultural Resources	Table 09	3	
EHE MODULE TOTAL			**33**

EHE Module Total	EHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected Explosive Hazard
EHE MODULE RATING	**G**

Table 11

CHE Module: CWM Configuration Data Element Table

Directions: Below are seven classifications of CWM configuration and their descriptions. Annotate the score(s) that correspond to **all** CWM configurations known or suspected to be present at the MRS.

Note: The terms *CWM/UXO*, *CWM/DMM*, *physical evidence*, and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
CWM, explosive configuration either UXO or damaged DMM	The CWM known or suspected of being present at the MRS is (a) explosively configured CWM that are UXO (i.e. CWM/UXO), or (b) explosively configured CWM that are DMM (i.e. CWM/DMM) that have been damaged.	30	
CWM mixed with UXO	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged, or nonexplosively configured CWM/DMM, or CWM not configured as a munition, that are commingled with conventional munitions that are UXO.	25	
CWM, explosive configuration that are undamaged DMM	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged.	20	
CWM, not explosively configured or CWM, bulk container	The CWM known or suspected of being present at the MRS is (a) nonexplosively configured CWM/DMM, or (b) bulk CWM/DMM (e.g., ton container).	15	
CAIS K941 and CAIS K942	The CWM/DMM known or suspected of being present at the MRS is CAIS K941(toxic gas set M-1) or CAIS K942 (toxic gas set M-2/E11).	12	
CAIS (chemical agent identification sets)	Only CAIS, other than CAIS K941 and K942, are known or suspected of being present at the MRS.	10	
Evidence of no CWM	Following investigation, the physical evidence indicates that CWM are not present at the MRS, or the historical evidence indicates that CWM are not present at the MRS.	0	0
CWM CONFIGURATION	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**0**

DIRECTIONS: Document any MRS-specific data used in selecting the ***CWM Configuration*** classifications in the space below.

As there are no records of munitions other than small arms being used or found at MRA/MRS No. 11, other types of munitions (e.g., grenades) are not considered to be of concern for this site.

Table 20

Determining the CHE Module Rating

DIRECTIONS:

1. From Tables 11 - 19, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **CHE Module Total** box below.

	Source	Score	Value
CWM Hazard Factor Data Elements			
CWM Configuration	Table 11	0	0
Sources of CWM	Table 12	0	
Accessibility Factor Data Elements			
Location of CWM	Table 13	0	0
Ease of Access	Table 14	0	
Status of Property	Table 15	0	
Receptor Factor Data Elements			
Population Density	Table 16	0	0
Population Near Hazard	Table 17	0	
Types of Activities/Structures	Table 18	0	
Ecological and/or Cultural Resources	Table 19	0	
		CHE MODULE TOTAL	**0**

4. Identify the appropriate range for the **CHE Module Total** at right.

5. Identify the **CHE Module Rating** that corresponds to the range selected and record this rating in the **CHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

CHE Module Total	CHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected CWM Hazard
CHE MODULE RATING	**No Known or Suspected CWM Hazard**

Table 21

HHE Module: Groundwater Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's groundwater and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the groundwater, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
		Sum the Ratios	

CHF Scale	CHF Value
CHF > 100	H (High)
100 > CHF >2	M (Medium)
2 > CHF	L (Low)

$$CHF = \sum ([\text{Max Conc of Contaminant}] / [\text{Comparison Value for Contaminant}])$$

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the groundwater migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the groundwater is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in groundwater has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the groundwater to a potential point of exposure (possibly due to geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the groundwater receptors at the MRS.

Classification	Description	Value
Identified	There is a threatened water supply well downgradient of the source and the groundwater is a current source of drinking water or source of water for other beneficial uses such as irrigation/agriculture (equivalent to Class I or IIA aquifer).	H
Potential	There is no threatened water supply well downgradient of the source and the groundwater is currently or potentially usable for drinking water, irrigation, or agriculture (equivalent to Class I, IIA, or IIB aquifer).	M
Limited	There is no potentially threatened water supply well downgradient of the source and the groundwater is not considered a potential source of drinking water and is of limited beneficial use (equivalent to Class IIIA or IIIB aquifer, or where perched aquifer exists only).	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Groundwater MC Hazard	**X**

Table 22

HHE Module: Surface Water - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface water, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Human Endpoint) MC Hazard	**X**

Table 23

HHE Module: Sediment - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the site's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for human endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		
CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).		

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	
Place an "X" in the box to the right if there is no known or suspected Sediment (Human Endpoint) MC Hazard		**X**

Table 24

HHE Module: Surface Water - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the surface water, select the box at the bottom of the table.

Note: Use either dissolved or total metals analyses.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		
CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).		

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Ecological Endpoint) MC Hazard	**X**

Table 25

HHE Module: Sediment - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Sediment (Ecological Endpoint) MC Hazard	**X**

Table 26

HHE Module: Surface Soil - Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface soil and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface soil, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface soil migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface soil is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface soil has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface soil to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface soil receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface soil to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface soil to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface soil to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Soil MC Hazard	**X**

Table 27

HHE Module: Supplemental Contaminant Hazard Factor Table

Contaminant Hazard Factor (CHF)

Directions: **Only use this table if there are more than five contaminants present at the MRS.** This is a supplemental table designed to hold information about contaminants that do not fit in the previous tables. Indicate the **media** in which these contaminants are present. Then record all **contaminants**, their **maximum concentrations** and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Calculate and record the **ratio** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** for each medium on the appropriate media-specific tables.

Note: For human exposures to groundwater and surface water, use dissolved, rather than total, metals analyses when both are available. Remember not to add ratios from different media.

Media	Contaminant [CAS No.]	Maximum Concentration	Units	Comparison Value	Units	Ratios
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
					SUBTOTAL FOR SURFACE SOIL	**0**
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
					SUBTOTAL FOR SEDIMENT	**0**
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
					SUBTOTAL FOR SURFACE WATER	**0**
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
					SUBTOTAL FOR GROUNDWATER	**0**

Table 28

Determining the HHE Module Rating

DIRECTIONS:

1. Record the letter values (H, M, L) for the **Contaminant Hazard**, **Migration Pathway**, and **Receptor Factors** for the media (from Tables 21 - 26) in the corresponding boxes below.
2. Record the media's three-letter combinations in the **Three-Letter-Combination** boxes below (three-letter combinations are arranged from Hs to Ms to Ls).
3. Using the reference provided below, determine each medium's rating (A - G) and record the letter in the corresponding **Media Rating** box below.

Medium (Source)	Contaminant Hazard Factor Value	Migratory Pathway Factor Value	Receptor Factor Value	Three-Letter Combination (Hs-Ms-Ls)	Media Rating (A - G)
Table 21 - Groundwater					
Table 22 - Surface Water (Human Endpoint)					
Table 23 - Sediment (Human Endpoint)					
Table 24 - Surface Water (Ecological Endpoint)					
Table 25 - Sediment (Ecological Endpoint)					
Table 26 - Surface Soil					
			HHE MODULE RATING		**No Known or Suspected MC Hazard**

DIRECTIONS (Continued):

4. Select the single highest **Media Rating** (A is the highest; G is the lowest) and enter the letter in the **HHE Module Rating** box below.

HHE Ratings (for reference only)	
HHH	A
HHM	B
HHL	C
HMM	
HML	D
MMM	
HLL	E
MML	
MLL	F
LLL	G

NOTE: An alternative module rating may be assigned when a module letter rating is used when more information is needed to score one or more media, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

Alternative Module Ratings	
	Evaluation Pending
	No Longer Required
	No Known or Suspected MC Hazard

Table 29

MRS Priority

DIRECTIONS: In the chart below, enter the letter **rating** for each module recorded in Table 10 (EHE), Table 20 (CHE), and Table 28 (HHE). Enter the corresponding numerical **priority** for each module. If information to determine the module rating is not available, choose the appropriate alternative module rating. The MRS priority is the single highest priority; record this number in the **MRS or Alternative Priority** box at the bottom of the table.

NOTE: An MRS assigned Priority 1 has the highest relative priority; an MRS assigned Priority 8 has the lowest relative priority. Only an MRS with CWM known or suspected to be present can be assigned Priority 1; an MRS that has CWM known or suspected to be present cannot be assigned Priority 8.

EHE Rating	Priority	CHE Rating	Priority	HHE Rating	Priority
		A	1		
A	2	B	2	A	2
B	3	C	3	B	3
C	4	D	4	C	4
D	5	E	5	D	5
E	6	F	6	E	6
F	7	G	7	F	7
G	8			G	8
Evaluation Pending		Evaluation Pending		Evaluation Pending	
No Longer Required		No Longer Required		No Longer Required	
No Known or Suspected Explosive Hazard		No Known or Suspected CWM Hazard		No Known or Suspected MC Hazard	

Reference Table 10:		Reference Table 20:		Reference Table 28:	
EHE Module Rating	Priority	CHE Module Rating	Priority	HHE Module Rating	Priority
G	8	No Known or Suspected CWM Hazard	No Known or Suspected CWM Hazard	No Known or Suspected MC Hazard	No Known or Suspected MC Hazard

MRS or Alternative Priority	8

Table A

MRS Background Information

DIRECTIONS: Record the background information below for the MRS to be evaluated. Much of this information is available from DoD databases, such as RMIS. If the MRS is located on a FUDS property, the suitable FUDS property information should be substituted. In the MRS summary, briefly describe the UXO, DMM, or MC that are known or suspected to be present, the exposure setting (the MRS's physical environment), any other incidental non-munitions related contaminants found at the MRS (e.g., benzene, trichloroethylene), and any potentially exposed human and ecological receptors. Include a map of the MRS, if one is available.

Munitions Response Site (MRS) Name:	**MRS No. 12, Range Complex No. 6**
Component:	US Army
Installation/Property Name:	**Camp Adair/Adair Air Force Station**
Location (City, County, State):	Benton County, Oregon
UTM Coordinates (NAD83):	N 4948187.48, E 482428.79
Site Name (RMIS ID):	Range Complex No. 6 (F10OR002903R21)
Project Name (Project No.):	Formerly Used Defense Sites, Military Munitions Response Program Site Inspections at Multiple Sites (116188)
Date Information Entered/Updated:	31-May-2007
Point of Contact (Name/Phone):	William Graney/206-764-3494

Project Phase ("X" only one):									
		PA	**X**	**SI**		**RI**		**FS**		**RD**
		RA-C		**RIP**		**RA-O**		**RC**		**LTM**

Media Evaluated ("X" all that apply):				
	X	**Groundwater (human receptor)**		**Sediment (human receptor)**
	X	**Surface soil (human receptor)**		**Surface water (ecological receptor)**
		Sediment (ecological receptor)		**Surface water (human receptor)**

MRS Summary

MRS Description: Describe the munitions-related activities that occurred at the installation, the dates of operation, and the UXO, DMM (by type of munition, if known) or munitions constituents (by type, if known) known or suspected to be present):

MRS No. 12 consists of Range Complex No. 6 and was used by Camp Adair 1942 and 1945. The MRS is comprised of 4 subranges. The range was used only for small arms training. Potential contaminants include lead from bullets and perchorate using in tracer reounds. The range area is currently used as for small agricultural crop growing operations and residences.

Description of Pathways for Human and Ecological Receptors:

The pathways evaluated with respect to MRS No. 12 are: terrestrial for humans (direct contact by forest workers, agricultural workers, and residents) and groundwater for humans (direct and ingestion by agricultural workers and residents).

Description of Receptors (Human and Ecological):

Receptors for MRS No. 12 include agricultural workers, residents, plants, and wildlife.

Table 1
EHE Module: Munitions Type Data Element Table

Directions: Below are eleven classifications of munitions and their descriptions. Annotate the score(s) that correspond with **all** munitions types known or suspected to be present at the MRS.

Note: The terms *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Sensitive	All UXO that are considered likely to function upon any interaction with exposed persons [e.g., submunitions, 40mm high-explosive (HE) grenades, white phosphorous (WP) munitions, high-explosive antitank (HEAT) munitions, and practice munitions with sensitive fuzes, but excluding all other practice munitions].	30	
	All hand grenades containing energetic filler.		
	Bulk primary explosives, or mixtures of these with environmental media, such that the mixture poses an explosive hazard.		
High explosive (used or damaged)	All UXO containing a high-explosive filler (e.g., RDX, Composition B), that are not considered "sensitive."	25	
	All DMM containing a high-explosive filler that have been damaged by burning or detonation, or deteriorated to the point of instability.		
Pyrotechnic (used or damaged)	All UXO containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades).	20	
	All DMM containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades) that have been damaged by burning or detonation, or deteriorated to the point of instability.		
High explosive (unused)	All DMM containing a high-explosive filler that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	15	
Propellant	All UXO containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor).	15	
	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor) that are damaged by burning or detonation, or deteriorated to the point of instability.		
Bulk secondary high explosives, pyrotechnics, or propellant	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor), that are deteriorated.	10	
	Bulk secondary high explosives, pyrotechnic compositions, or propellant (not contained in a munition), or mixtures of these with environmental media such that the mixture poses an explosive hazard.		
Pyrotechnic (not used or damaged)	All DMM containing a pyrotechnic filler (i.e. red phosphorous), other than white phosphorous filler, that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	10	
Practice	All UXO that are practice munitions that are not associated with a sensitive fuze.	5	
	All DMM that are practice munitions that are not associated with a sensitive fuze and that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.		
Riot control	All UXO or DMM containing a riot control agent filler (e.g., tear gas).	3	
Small arms	All used munitions or DMM that are categorized as small arms ammunition [Physical evidence or historical evidence that no other types of munitions (e.g., grenades, subcaliber training rockets, demolition charges) were used or are present on the MRS is required for selection of this category.].	2	2
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
MUNITIONS TYPE	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**2**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Munitions Type*** classifications in the space below.

The ASR Site Inspection team inspected the MRS No. 12 (Range Complex No. 6) area. The team reported no ordnance or explosives were found at the MRS. The range was used for small arms training only (2007 SI Report, Section 4.1.1). The 2006 SI field team inspected Range Complex No. 6 and did not identify any ordnance or explosives.

Table 2

EHE Module: Source of Hazard Data Element Table

Directions: Below are eleven classifications describing sources of explosive hazards. Annotate the score(s) that correspond with **all** sources of explosive hazards known or suspected to be present at the MRS.

Note: The terms *former range* , *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Former range	The MRS is a former military range where munitions (including practice munitions with sensitive fuzes) have been used. Such areas include: impact or target areas, associated buffer and safety zones, firing points, and live-fire maneuver areas.	10	
Former munitions treatment (i.e. OB/OD) unit	The MRS is a location where UXO or DMM (e.g., munitions, bulk explosives, bulk pyrotechnic, or bulk propellants) were burned or detonated for the purpose of treatment prior to disposal.	8	
Former practice munitions range	The MRS is a former military range on which only practice munitions without sensitive fuzes were used.	6	
Former maneuver area	The MRS is a former maneuver area where no munitions other than flares, simulators, smokes, and blanks were used. There must be evidence that no other munitions were used at the location to place an MRS into this category.	5	
Former burial pit or other disposal area	The MRS is a location where DMM were buried or disposed of (e.g., disposed of into a water body) without prior thermal treatment.	5	
Former industrial operating facilities	The MRS is a location that is a former munitions maintenance, manufacturing, or demilitarization facility.	4	
Former firing points	The MRS is a firing point, where the firing point is delineated as an MRS separate from the rest of a former military range.	4	
Former missile or air defense artillery emplacements	The MRS is a former missile defense or air defense artillery (ADA) emplacement not associated with a military range.	2	
Former storage or transfer points	The MRS is a location where munitions were stored or handled for transfer between different modes of transportation (e.g., rail to truck, truck to weapon system).	2	
Former small arms range	The MRS is a former military range where only small arms ammunition was used [There must be evidence that no other types of munitions (e.g., grenades) were used or are present to place an MRS iinto this category.].	1	1
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that no UXO or DMM are present, or there is historical evidence indicating that no UXO or DMM are present.	0	
SOURCE OF HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**1**

DIRECTIONS: Document any MRS-specific data used in selecting the **Source of Hazard** classifications in the space below.

The Range Complex No. 6 was used to train troops in the use and proficiency of small arms. Only small arms were reported as being used.

Table 3
EHE Module: Location of Munitions Data Element Table

Directions: Below are eight classifications of munitions locations and their descriptions. Annotate the score(s) that correspond with **all** locations where munitions are located or suspected of being found at the MRS.

Note: The terms *surface* , *subsurface* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Confirmed surface	Physical evidence indicates that there are UXO or DMM on the surface of the MRS. Historical evidence (e.g., a confirmed incident report or accident report) indicates there are UXO or DMM on the surface of the MRS.	25	
Confirmed subsurface, active	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM.	20	
Confirmed subsurface, stable	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed.	15	
Suspected (physical evidence)	There is physical evidence (e.g., munitions debris, such fragments, penetrators, projectiles, shell casings, links, fins), other than the documented presence of UXO or DMM, indicating that UXO or DMM may be present at the MRS.	10	
Suspected (historical evidence)	There is historical evidence indicating that UXO or DMM may be present at the MRS.	5	
Subsurface, physical constraint	There is physical or historical evidence indicating that UXO or DMM may be present in the subsurface, but there is a physical constraint (e.g., pavement, water depth over 120 feet) preventing direct access to the UXO or DMM.	2	
Small arms (regardless of location)	The presence of small arms ammunition is confirmed or suspected, regardless of other factors such as geological stability [There must be evidence that no other types of munitions (e.g., grenades) were used or are present at the MRS to place an MRS into this category.]	1	1
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
LOCATION OF MUNITIONS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 25).		**1**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Location of Munitions*** classifications in the space below.

There are no records of munitions other than small arms being used at MRS No. 12.

Table 4
EHE Module: Ease of Access Data Element Table

Directions: Below are four classifications of barrier types that can surround an MRS and their descriptions. The barrier type is directly related to the ease of public access to any explosive materiel. Annotate the score that corresponds with the ease of access to the MRS.

Note: The term *barrier* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
No barrier	There is no barrier preventing access to any part of the MRS (i.e. all parts of the MRS are accessible).	10	10
Barrier to MRS access is incomplete	There is a barrier preventing access to parts of the MRS, but not the entire MRS.	8	
Barrier to MRS access is complete but not monitored	There is a barrier preventing access to all parts of the MRS, but there is no surveillance (e.g., by a guard) to ensure that the barrier is effectively preventing access to all parts of the MRS.	5	
Barrier to MRS access is complete and monitored	There is a barrier preventing access to all parts of the MRS, and there is active, continual surveillance (e.g., by a guard, video monitoring) to ensure that the barrier is effectively preventing access to all parts of the MRS.	0	
EASE OF ACCESS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**10**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ease of Access*** classification in the space below.

As of August 2006, there is no fencing or signage restricting or limiting access to the area by the general public.

Table 5
EHE Module: Status of Property Data Element Table

Directions: Below are three classifications of the status of a property within the Department of Defense (DoD) and their descriptions. Annotate the score that corresponds with the status of property at the MRS.

Note: N/A

Classification	Description	Possible Score	Score
Non-DoD control	The MRS is at a location that is no longer owned by, leased to, or otherwise possessed or used by DoD. Examples are privately owned land or water bodies; land or water bodies owned or controlled by state, tribal, or local governments; and land or water bodies managed by other federal agencies.	5	5
Scheduled for transfer from DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD, and DoD plans to transfer that land or water body to the control of another entity (e.g., a state, tribal, or local government; a private party; another federal agency) within 3 years from the date the rule is applied.	3	
DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD. With respect to property that is leased or otherwise possessed, DoD must control access to the MRS 24 hours per day, every day of the calendar year.	0	
STATUS OF PROPERTY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Status of Property*** classification in the space below.

Camp Adair was acquired by the Army beginning in 1941. In 1946, the War Department declared Camp Adair surplus and was assigned to the War Assets Administration for disposition under the Surplus Property Act. In 1946, the property was transferred to the Department of Agriculture for sale by the Federal Land Bank. As of 2006, property ownership of MRS No. 12 was by private citizens. There is no controlled access to the FUDS.

Table 6
EHE Module: Population Density Data Element Table

Directions: Below are three classifications of population density and their descriptions. Determine the population density per square mile in the vicinity of the MRS and annotate the score that corresponds with the associated population density.

Note: If an MRS is located in more than one county, use the largest population density value among the counties. If the MRS is within or borders a city or town, use the population density for the city or town, rather than that of the county.

Classification	Description	Possible Score	Score
> 500 persons per square mile	There are more than 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	5	
100 - 500 persons per square mile	There are 100 to 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	3	
< 100 persons per square mile	There are fewer than 100 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	1	1
POPULATION DENSITY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**1**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Density*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 7
EHE Module: Population Near Hazard Data Element Table

Directions: Below are six classifications describing the number of inhabited structures near the MRS. The number of inhabited buildings relates to the population near the hazard. Determine the number of inhabited structures within two miles of the MRS boundary and annotate the score that corresponds with the associated population near the known or suspected hazard.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
26 or more inhabited structures	There are 26 or more inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	5	5
16 to 25 inhabited structures	There are 16 to 25 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	4	
11 to 15 inhabited structures	There are 11 to 15 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	3	
6 to 10 inhabited structures	There are 6 to 10 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	2	
1 to 5 inhabited structures	There are 1 to 5 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	1	
0 inhabited structures	There are no inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	0	
POPULATION NEAR HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Near Hazard*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 8

EHE Module: Types of Activities/Structures Data Element Table

Directions: Below are five classifications of activities and/or inhabited structures near the hazard and their descriptions. Review the types of activities that occur and/or structures that are present within two miles of the MRS and annotate the score(s) that correspond with **all** the activities/structure classifications at the MRS.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Residential, educational, commercial, or subsistence	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with any of the following purposes: residential, educational, child care, critical assets (e.g., hospitals, fire and rescue, police stations, dams), hotels, commercial, shopping centers, playgrounds, community gathering areas, religious sites, or sites used for subsistence hunting, fishing, and gathering.	5	5
Parks and recreational areas	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with parks, nature preserves, or other recreational uses.	4	4
Agricultural, forestry	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with agriculture or forestry.	3	3
Industrial or warehousing	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with industrial activities or warehousing.	2	
No known or recurring activities	There are no known or recurring activities occurring up to two miles from the MRS's boundary or within the MRS's boundary.	1	
TYPES OF ACTIVITIES/STRUCTURES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Types of Activities/Structures*** classifications in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 9

EHE Module: Ecological and/or Cultural Resources Data Element Table

Directions: Below are four classifications of ecological and/or cultural resources and their descriptions. Review the types of resources present and annotate the score that corresponds with the ecological and/or cultural resource classifications at the MRS.

Note: The terms *ecological resources* and *cultural resources* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Ecological and cultural resources present	There are both ecological and cultural resources present on the MRS.	5	
Ecological resources present	There are ecological resources present on the MRS.	3	3
Cultural resources present	There are cultural resources present on the MRS.	3	
No ecological or cultural resources present	There are no ecological resources or cultural resources present on the MRS.	0	
ECOLOGICAL AND/OR CULTURAL RESOURCES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**3**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ecological and/or Cultural Resources*** classification in the space below.

The State Historic Preservation Office (SHPO), U.S. Forest Service (USFS), and the Oregon Department of Fish and Wildlife (ODFW) were contacted regarding cultural and natural resources. The SHPO indicated that no potential cultural/archaeological resources were within the currently identified MRS No. 12. The ODFW, Oregon Department of Agriculture, and the U.S. Fish and Wildlife Service were contacted regarding identification of any potentially impacted, threatened, or endangered species at Camp Adair. Two plant species are known to grow in the Camp Adair area. However, the agencies were not concerned with the proposed site activities because of the fact they were minimally invasive (2007 SI Report, Sections 2.4.7, 3.2.1 and 3.2.2).

Table 10

Determining the EHE Module Rating

DIRECTIONS:

1. From Tables 01 - 09, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **EHE Module Total** box below.

	Source	Score	Value
Explosive Hazard Factor Data Elements			
Munitions Type	Table 01	2	3
Source of Hazard	Table 02	1	
Accessibility Factor Data Elements			
Location of Munitions	Table 03	1	16
Ease of Access	Table 04	10	
Status of Property	Table 05	5	
Receptor Factor Data Elements			
Population Density	Table 06	1	14
Population Near Hazard	Table 07	5	
Types of Activities/Structures	Table 08	5	
Ecological and/or Cultural Resources	Table 09	3	
EHE MODULE TOTAL			**33**

4. Identify the appropriate range for the **EHE Module Total** at right.

5. Identify the **EHE Module Rating** that corresponds to the range selected and record this rating in the **EHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

EHE Module Total	EHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected Explosive Hazard
EHE MODULE RATING	**G**

Table 11

CHE Module: CWM Configuration Data Element Table

Directions: Below are seven classifications of CWM configuration and their descriptions. Annotate the score(s) that correspond to **all** CWM configurations known or suspected to be present at the MRS.

Note: The terms *CWM/UXO*, *CWM/DMM*, *physical evidence*, and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
CWM, explosive configuration either UXO or damaged DMM	The CWM known or suspected of being present at the MRS is (a) explosively configured CWM that are UXO (i.e. CWM/UXO), or (b) explosively configured CWM that are DMM (i.e. CWM/DMM) that have been damaged.	30	
CWM mixed with UXO	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged, or nonexplosively configured CWM/DMM, or CWM not configured as a munition, that are commingled with conventional munitions that are UXO.	25	
CWM, explosive configuration that are undamaged DMM	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged.	20	
CWM, not explosively configured or CWM, bulk container	The CWM known or suspected of being present at the MRS is (a) nonexplosively configured CWM/DMM, or (b) bulk CWM/DMM (e.g., ton container).	15	
CAIS K941 and CAIS K942	The CWM/DMM known or suspected of being present at the MRS is CAIS K941(toxic gas set M-1) or CAIS K942 (toxic gas set M-2/E11).	12	
CAIS (chemical agent identification sets)	Only CAIS, other than CAIS K941 and K942, are known or suspected of being present at the MRS.	10	
Evidence of no CWM	Following investigation, the physical evidence indicates that CWM are not present at the MRS, or the historical evidence indicates that CWM are not present at the MRS.	0	0
CWM CONFIGURATION	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**0**

DIRECTIONS: Document any MRS-specific data used in selecting the ***CWM Configuration*** classifications in the space below.

As there are no records of munitions other than small arms being used or found at Range Complex No. 6, other types of munitions (e.g., grenades) are not considered to be of concern for this site.

Table 20

Determining the CHE Module Rating

DIRECTIONS:

1. From Tables 11 - 19, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **CHE Module Total** box below.

	Source	Score	Value
CWM Hazard Factor Data Elements			
CWM Configuration	Table 11	0	0
Sources of CWM	Table 12	0	
Accessibility Factor Data Elements			
Location of CWM	Table 13	0	0
Ease of Access	Table 14	0	
Status of Property	Table 15	0	
Receptor Factor Data Elements			
Population Density	Table 16	0	0
Population Near Hazard	Table 17	0	
Types of Activities/Structures	Table 18	0	
Ecological and/or Cultural Resources	Table 19	0	
		CHE MODULE TOTAL	**0**

4. Identify the appropriate range for the **CHE Module Total** at right.

5. Identify the **CHE Module Rating** that corresponds to the range selected and record this rating in the **CHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

CHE Module Total	CHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected CWM Hazard
CHE MODULE RATING	**No Known or Suspected CWM Hazard**

Table 21

HHE Module: Groundwater Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's groundwater and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the groundwater, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
		Sum the Ratios	

CHF Scale	CHF Value	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**
100 > CHF >2	**M (Medium)**	
2 > CHF	**L (Low)**	

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the groundwater migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the groundwater is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in groundwater has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the groundwater to a potential point of exposure (possibly due to geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the groundwater receptors at the MRS.

Classification	Description	Value
Identified	There is a threatened water supply well downgradient of the source and the groundwater is a current source of drinking water or source of water for other beneficial uses such as irrigation/agriculture (equivalent to Class I or IIA aquifer).	H
Potential	There is no threatened water supply well downgradient of the source and the groundwater is currently or potentially usable for drinking water, irrigation, or agriculture (equivalent to Class I, IIA, or IIB aquifer).	M
Limited	There is no potentially threatened water supply well downgradient of the source and the groundwater is not considered a potential source of drinking water and is of limited beneficial use (equivalent to Class IIIA or IIIB aquifer, or where perched aquifer exists only).	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	
	Place an "X" in the box to the right if there is no known or suspected Groundwater MC Hazard	**X**

Table 22

HHE Module: Surface Water - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface water, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		
CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).		

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Human Endpoint) MC Hazard	**X**

Table 23

HHE Module: Sediment - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the site's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for human endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		
CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).		

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	
Place an "X" in the box to the right if there is no known or suspected Sediment (Human Endpoint) MC Hazard		**X**

Table 24

HHE Module: Surface Water - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the surface water, select the box at the bottom of the table.

Note: Use either dissolved or total metals analyses.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Ecological Endpoint) MC Hazard	**X**

Table 25

HHE Module: Sediment - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Sediment (Ecological Endpoint) MC Hazard	**X**

Table 26

HHE Module: Surface Soil - Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface soil and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface soil, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface soil migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface soil is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface soil has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface soil to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface soil receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface soil to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface soil to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface soil to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Soil MC Hazard	**X**

Table 27

HHE Module: Supplemental Contaminant Hazard Factor Table

Contaminant Hazard Factor (CHF)

Directions: **Only use this table if there are more than five contaminants present at the MRS.** This is a supplemental table designed to hold information about contaminants that do not fit in the previous tables. Indicate the **media** in which these contaminants are present. Then record all **contaminants**, their **maximum concentrations** and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Calculate and record the **ratio** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** for each medium on the appropriate media-specific tables.

Note: For human exposures to groundwater and surface water, use dissolved, rather than total, metals analyses when both are available. Remember not to add ratios from different media.

Media	Contaminant [CAS No.]	Maximum Concentration	Units	Comparison Value	Units	Ratios
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
					SUBTOTAL FOR SURFACE SOIL	**0**
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
					SUBTOTAL FOR SEDIMENT	**0**
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
					SUBTOTAL FOR SURFACE WATER	**0**
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
					SUBTOTAL FOR GROUNDWATER	**0**

Table 28

Determining the HHE Module Rating

DIRECTIONS:

1. Record the letter values (H, M, L) for the **Contaminant Hazard**, **Migration Pathway**, and **Receptor Factors** for the media (from Tables 21 - 26) in the corresponding boxes below.
2. Record the media's three-letter combinations in the **Three-Letter-Combination** boxes below (three-letter combinations are arranged from Hs to Ms to Ls).
3. Using the reference provided below, determine each medium's rating (A - G) and record the letter in the corresponding **Media Rating** box below.

Medium (Source)	Contaminant Hazard Factor Value	Migratory Pathway Factor Value	Receptor Factor Value	Three-Letter Combination (Hs-Ms-Ls)	Media Rating (A - G)
Table 21 - Groundwater					
Table 22 - Surface Water (Human Endpoint)					
Table 23 - Sediment (Human Endpoint)					
Table 24 - Surface Water (Ecological Endpoint)					
Table 25 - Sediment (Ecological Endpoint)					
Table 26 - Surface Soil					
			HHE MODULE RATING		**No Known or Suspected MC Hazard**

DIRECTIONS (Continued):

4. Select the single highest **Media Rating** (A is the highest; G is the lowest) and enter the letter in the **HHE Module Rating** box below.

HHE Ratings (for reference only)	
HHH	A
HHM	B
HHL	C
HMM	
HML	D
MMM	
HLL	E
MML	
MLL	F
LLL	G

NOTE: An alternative module rating may be assigned when a module letter rating is used when more information is needed to score one or more media, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

Alternative Module Ratings	
	Evaluation Pending
	No Longer Required
	No Known or Suspected MC Hazard

Table 29

MRS Priority

DIRECTIONS: In the chart below, enter the letter **rating** for each module recorded in Table 10 (EHE), Table 20 (CHE), and Table 28 (HHE). Enter the corresponding numerical **priority** for each module. If information to determine the module rating is not available, choose the appropriate alternative module rating. The MRS priority is the single highest priority; record this number in the **MRS or Alternative Priority** box at the bottom of the table.

NOTE: An MRS assigned Priority 1 has the highest relative priority; an MRS assigned Priority 8 has the lowest relative priority. Only an MRS with CWM known or suspected to be present can be assigned Priority 1; an MRS that has CWM known or suspected to be present cannot be assigned Priority 8.

EHE Rating	Priority	CHE Rating	Priority	HHE Rating	Priority
		A	1		
A	2	B	2	A	2
B	3	C	3	B	3
C	4	D	4	C	4
D	5	E	5	D	5
E	6	F	6	E	6
F	7	G	7	F	7
G	8			G	8
Evaluation Pending		Evaluation Pending		Evaluation Pending	
No Longer Required		No Longer Required		No Longer Required	
No Known or Suspected Explosive Hazard		No Known or Suspected CWM Hazard		No Known or Suspected MC Hazard	

Reference Table 10:		Reference Table 20:		Reference Table 28:	
EHE Module Rating	Priority	CHE Module Rating	Priority	HHE Module Rating	Priority
G	8	No Known or Suspected CWM Hazard	No Known or Suspected CWM Hazard	No Known or Suspected MC Hazard	No Known or Suspected MC Hazard

MRS or Alternative Priority	8

Table A

MRS Background Information

DIRECTIONS: Record the background information below for the MRS to be evaluated. Much of this information is available from DoD databases, such as RMIS. If the MRS is located on a FUDS property, the suitable FUDS property information should be substituted. In the MRS summary, briefly describe the UXO, DMM, or MC that are known or suspected to be present, the exposure setting (the MRS's physical environment), any other incidental non-munitions related contaminants found at the MRS (e.g., benzene, trichloroethylene), and any potentially exposed human and ecological receptors. Include a map of the MRS, if one is available.

Munitions Response Site (MRS) Name:	**MRS No. 13, Infiltration Range No. 143**
Component:	US Army
Installation/Property Name:	**Camp Adair/Adair Air Force Station**
Location (City, County, State):	Benton County, Oregon
UTM Coordinates (NAD83):	N 4949645.55, E 481823.14
Site Name (RMIS ID):	Infiltration Range No. 143 (F10OR002903R05)
Project Name (Project No.):	Formerly Used Defense Sites, Military Munitions Response Program Site Inspections at Multiple Sites (116188)
Date Information Entered/Updated:	31-May-2007
Point of Contact (Name/Phone):	William Graney/206-764-3494

Project Phase ("X" only one):									
		PA	**X**	**SI**		**RI**		**FS**		**RD**
		RA-C		**RIP**		**RA-O**		**RC**		**LTM**

Media Evaluated ("X" all that apply):				
		Groundwater (human receptor)		**Sediment (human receptor)**
		Surface soil (human receptor)		**Surface water (ecological receptor)**
		Sediment (ecological receptor)		**Surface water (human receptor)**

MRS Summary

MRS Description: Describe the munitions-related activities that occurred at the installation, the dates of operation, and the UXO, DMM (by type of munition, if known) or munitions constituents (by type, if known) known or suspected to be present):

MRS No. 13 consists entirely of Infiltration Range No. 143 and was used by Camp Adair 1942 and 1945. The range was used primarily for small arms training. The use of static demolition explosives and smoke is also documented. Potential contaminants include lead from bullets and perchorate using in tracer rounds and explosives. In 1994, a small amount of soil containing white phosphorus was uncovered during excavation for the current landfill. The white phosphorus soil was allowed to burn and the threat is gone (2007 SI Report, Section 2.5.3). The MRS is currently a landfill and has been heavily excavated.

Description of Pathways for Human and Ecological Receptors:

There were no pathways evaluated for MRS No. 13. The site has been completely excavated and is currently used as a landfill.

Description of Receptors (Human and Ecological):

Receptors in the area of MRS No. 13 are landfill workers and wildlife.

Table 1
EHE Module: Munitions Type Data Element Table

Directions: Below are eleven classifications of munitions and their descriptions. Annotate the score(s) that correspond with **all** munitions types known or suspected to be present at the MRS.

Note: The terms *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Sensitive	All UXO that are considered likely to function upon any interaction with exposed persons [e.g., submunitions, 40mm high-explosive (HE) grenades, white phosphorous (WP) munitions, high-explosive antitank (HEAT) munitions, and practice munitions with sensitive fuzes, but excluding all other practice munitions].	30	
	All hand grenades containing energetic filler.		
	Bulk primary explosives, or mixtures of these with environmental media, such that the mixture poses an explosive hazard.		
High explosive (used or damaged)	All UXO containing a high-explosive filler (e.g., RDX, Composition B), that are not considered "sensitive."	25	
	All DMM containing a high-explosive filler that have been damaged by burning or detonation, or deteriorated to the point of instability.		
Pyrotechnic (used or damaged)	All UXO containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades).	20	
	All DMM containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades) that have been damaged by burning or detonation, or deteriorated to the point of instability.		
High explosive (unused)	All DMM containing a high-explosive filler that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	15	
Propellant	All UXO containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor).	15	
	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor) that are damaged by burning or detonation, or deteriorated to the point of instability.		
Bulk secondary high explosives, pyrotechnics, or propellant	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor), that are deteriorated.	10	
	Bulk secondary high explosives, pyrotechnic compositions, or propellant (not contained in a munition), or mixtures of these with environmental media such that the mixture poses an explosive hazard.		
Pyrotechnic (not used or damaged)	All DMM containing a pyrotechnic filler (i.e. red phosphorous), other than white phosphorous filler, that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	10	
Practice	All UXO that are practice munitions that are not associated with a sensitive fuze.	5	
	All DMM that are practice munitions that are not associated with a sensitive fuze and that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.		
Riot control	All UXO or DMM containing a riot control agent filler (e.g., tear gas).	3	
Small arms	All used munitions or DMM that are categorized as small arms ammunition [Physical evidence or historical evidence that no other types of munitions (e.g., grenades, subcaliber training rockets, demolition charges) were used or are present on the MRS is required for selection of this category.].	2	2
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
MUNITIONS TYPE	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**2**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Munitions Type*** classifications in the space below.

The ASR Site Inspection team inspected the vicinity of the MRS No. 13 (Infiltration Range No. 143). The team reported no ordnance or explosives were found at the MRS. The 2006 SI field team did not inspect the MRS. Aerial photos show that the entire footprint of the MRS has been heavily excavated for the landfill. The presence of any MEC would have been disturbed and redistributed.

Table 2

EHE Module: Source of Hazard Data Element Table

Directions: Below are eleven classifications describing sources of explosive hazards. Annotate the score(s) that correspond with **all** sources of explosive hazards known or suspected to be present at the MRS.

Note: The terms *former range* , *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Former range	The MRS is a former military range where munitions (including practice munitions with sensitive fuzes) have been used. Such areas include: impact or target areas, associated buffer and safety zones, firing points, and live-fire maneuver areas.	10	
Former munitions treatment (i.e. OB/OD) unit	The MRS is a location where UXO or DMM (e.g., munitions, bulk explosives, bulk pyrotechnic, or bulk propellants) were burned or detonated for the purpose of treatment prior to disposal.	8	
Former practice munitions range	The MRS is a former military range on which only practice munitions without sensitive fuzes were used.	6	
Former maneuver area	The MRS is a former maneuver area where no munitions other than flares, simulators, smokes, and blanks were used. There must be evidence that no other munitions were used at the location to place an MRS into this category.	5	
Former burial pit or other disposal area	The MRS is a location where DMM were buried or disposed of (e.g., disposed of into a water body) without prior thermal treatment.	5	
Former industrial operating facilities	The MRS is a location that is a former munitions maintenance, manufacturing, or demilitarization facility.	4	
Former firing points	The MRS is a firing point, where the firing point is delineated as an MRS separate from the rest of a former military range.	4	
Former missile or air defense artillery emplacements	The MRS is a former missile defense or air defense artillery (ADA) emplacement not associated with a military range.	2	
Former storage or transfer points	The MRS is a location where munitions were stored or handled for transfer between different modes of transportation (e.g., rail to truck, truck to weapon system).	2	
Former small arms range	The MRS is a former military range where only small arms ammunition was used [There must be evidence that no other types of munitions (e.g., grenades) were used or are present to place an MRS iinto this category.].	1	1
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that no UXO or DMM are present, or there is historical evidence indicating that no UXO or DMM are present.	0	
SOURCE OF HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**1**

DIRECTIONS: Document any MRS-specific data used in selecting the **Source of Hazard** classifications in the space below.

MRS No. 13 consists entirely of Infiltration Range No. 143 and was used by Camp Adair 1942 and 1945. The range was used primarily for small arms training. The use of static demolition explosives and smoke is also documented. Potential contaminants include lead from bullets and perchorate using in tracer rounds and explosives.

Table 3
EHE Module: Location of Munitions Data Element Table

Directions: Below are eight classifications of munitions locations and their descriptions. Annotate the score(s) that correspond with **all** locations where munitions are located or suspected of being found at the MRS.

Note: The terms *surface* , *subsurface* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Confirmed surface	Physical evidence indicates that there are UXO or DMM on the surface of the MRS. Historical evidence (e.g., a confirmed incident report or accident report) indicates there are UXO or DMM on the surface of the MRS.	25	
Confirmed subsurface, active	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM.	20	
Confirmed subsurface, stable	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed.	15	
Suspected (physical evidence)	There is physical evidence (e.g., munitions debris, such fragments, penetrators, projectiles, shell casings, links, fins), other than the documented presence of UXO or DMM, indicating that UXO or DMM may be present at the MRS.	10	
Suspected (historical evidence)	There is historical evidence indicating that UXO or DMM may be present at the MRS.	5	
Subsurface, physical constraint	There is physical or historical evidence indicating that UXO or DMM may be present in the subsurface, but there is a physical constraint (e.g., pavement, water depth over 120 feet) preventing direct access to the UXO or DMM.	2	
Small arms (regardless of location)	The presence of small arms ammunition is confirmed or suspected, regardless of other factors such as geological stability [There must be evidence that no other types of munitions (e.g., grenades) were used or are present at the MRS to place an MRS into this category.]	1	1
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
LOCATION OF MUNITIONS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 25).		**1**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Location of Munitions*** classifications in the space below.

The ASR Site Inspection team inspected the vicinity of the MRS No. 13 (Infiltration Range No. 143). The team reported no ordnance or explosives were found at the MRS. The 2006 SI field team did not inspect the MRS. Aerial photos show that the entire footprint of the MRS has been heavily excavated for the landfill. The presence of any MEC would have been disturbed and redistributed.

Table 4
EHE Module: Ease of Access Data Element Table

Directions: Below are four classifications of barrier types that can surround an MRS and their descriptions. The barrier type is directly related to the ease of public access to any explosive materiel. Annotate the score that corresponds with the ease of access to the MRS.

Note: The term *barrier* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
No barrier	There is no barrier preventing access to any part of the MRS (i.e. all parts of the MRS are accessible).	10	
Barrier to MRS access is incomplete	There is a barrier preventing access to parts of the MRS, but not the entire MRS.	8	8
Barrier to MRS access is complete but not monitored	There is a barrier preventing access to all parts of the MRS, but there is no surveillance (e.g., by a guard) to ensure that the barrier is effectively preventing access to all parts of the MRS.	5	
Barrier to MRS access is complete and monitored	There is a barrier preventing access to all parts of the MRS, and there is active, continual surveillance (e.g., by a guard, video monitoring) to ensure that the barrier is effectively preventing access to all parts of the MRS.	0	
EASE OF ACCESS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**8**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ease of Access*** classification in the space below.

As of August 2006, there is fencing and signage restricting or limiting access to the area by the general public other than to specific disposal areas. The site is currently used as a landfill and access is controled. Roads into the landfill are gated and locked.

Table 5
EHE Module: Status of Property Data Element Table

Directions: Below are three classifications of the status of a property within the Department of Defense (DoD) and their descriptions. Annotate the score that corresponds with the status of property at the MRS.

Note: N/A

Classification	Description	Possible Score	Score
Non-DoD control	The MRS is at a location that is no longer owned by, leased to, or otherwise possessed or used by DoD. Examples are privately owned land or water bodies; land or water bodies owned or controlled by state, tribal, or local governments; and land or water bodies managed by other federal agencies.	5	5
Scheduled for transfer from DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD, and DoD plans to transfer that land or water body to the control of another entity (e.g., a state, tribal, or local government; a private party; another federal agency) within 3 years from the date the rule is applied.	3	
DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD. With respect to property that is leased or otherwise possessed, DoD must control access to the MRS 24 hours per day, every day of the calendar year.	0	
STATUS OF PROPERTY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Status of Property*** classification in the space below.

Camp Adair was acquired by the Army beginning in 1941. In 1946, the War Department declared Camp Adair surplus and was assigned to the War Assets Administration for disposition under the Surplus Property Act. In 1946, the property was transferred to the Department of Agriculture for sale by the Federal Land Bank. The current owner is a private landfill company.

Table 6
EHE Module: Population Density Data Element Table

Directions: Below are three classifications of population density and their descriptions. Determine the population density per square mile in the vicinity of the MRS and annotate the score that corresponds with the associated population density.

Note: If an MRS is located in more than one county, use the largest population density value among the counties. If the MRS is within or borders a city or town, use the population density for the city or town, rather than that of the county.

Classification	Description	Possible Score	Score
> 500 persons per square mile	There are more than 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	5	
100 - 500 persons per square mile	There are 100 to 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	3	
< 100 persons per square mile	There are fewer than 100 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	1	1
POPULATION DENSITY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**1**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Density*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 7
EHE Module: Population Near Hazard Data Element Table

Directions: Below are six classifications describing the number of inhabited structures near the MRS. The number of inhabited buildings relates to the population near the hazard. Determine the number of inhabited structures within two miles of the MRS boundary and annotate the score that corresponds with the associated population near the known or suspected hazard.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
26 or more inhabited structures	There are 26 or more inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	5	5
16 to 25 inhabited structures	There are 16 to 25 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	4	
11 to 15 inhabited structures	There are 11 to 15 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	3	
6 to 10 inhabited structures	There are 6 to 10 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	2	
1 to 5 inhabited structures	There are 1 to 5 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	1	
0 inhabited structures	There are no inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	0	
POPULATION NEAR HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Near Hazard*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 8

EHE Module: Types of Activities/Structures Data Element Table

Directions: Below are five classifications of activities and/or inhabited structures near the hazard and their descriptions. Review the types of activities that occur and/or structures that are present within two miles of the MRS and annotate the score(s) that correspond with **all** the activities/structure classifications at the MRS.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Residential, educational, commercial, or subsistence	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with any of the following purposes: residential, educational, child care, critical assets (e.g., hospitals, fire and rescue, police stations, dams), hotels, commercial, shopping centers, playgrounds, community gathering areas, religious sites, or sites used for subsistence hunting, fishing, and gathering.	5	5
Parks and recreational areas	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with parks, nature preserves, or other recreational uses.	4	4
Agricultural, forestry	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with agriculture or forestry.	3	3
Industrial or warehousing	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with industrial activities or warehousing.	2	
No known or recurring activities	There are no known or recurring activities occurring up to two miles from the MRS's boundary or within the MRS's boundary.	1	
TYPES OF ACTIVITIES/STRUCTURES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Types of Activities/Structures*** classifications in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 9

EHE Module: Ecological and/or Cultural Resources Data Element Table

Directions: Below are four classifications of ecological and/or cultural resources and their descriptions. Review the types of resources present and annotate the score that corresponds with the ecological and/or cultural resource classifications at the MRS.

Note: The terms *ecological resources* and *cultural resources* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Ecological and cultural resources present	There are both ecological and cultural resources present on the MRS.	5	
Ecological resources present	There are ecological resources present on the MRS.	3	
Cultural resources present	There are cultural resources present on the MRS.	3	
No ecological or cultural resources present	There are no ecological resources or cultural resources present on the MRS.	0	0
ECOLOGICAL AND/OR CULTURAL RESOURCES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**0**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ecological and/or Cultural Resources*** classification in the space below.

The State Historic Preservation Office (SHPO), U.S. Forest Service (USFS), and the Oregon Department of Fish and Wildlife (ODFW) were contacted regarding cultural and natural resources. The SHPO indicated that no potential cultural/archaeological resources were within the currently identified MRS No. 13. The ODFW, Oregon Department of Agriculture, and the U.S. Fish and Wildlife Service were contacted regarding identification of any potentially impacted, threatened, or endangered species at Camp Adair. Two plant species are known to grow in the Camp Adair area. However, the agencies were not concerned with the proposed site activities because of the fact they were minimally invasive (2007 SI Report, Sections 2.4.7, 3.2.1 and 3.2.2).

Table 10

Determining the EHE Module Rating

DIRECTIONS:

1. From Tables 01 - 09, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **EHE Module Total** box below.

4. Identify the appropriate range for the **EHE Module Total** at right.

5. Identify the **EHE Module Rating** that corresponds to the range selected and record this rating in the **EHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

	Source	Score	Value
Explosive Hazard Factor Data Elements			
Munitions Type	Table 01	2	3
Source of Hazard	Table 02	1	
Accessibility Factor Data Elements			
Location of Munitions	Table 03	1	14
Ease of Access	Table 04	8	
Status of Property	Table 05	5	
Receptor Factor Data Elements			
Population Density	Table 06	1	11
Population Near Hazard	Table 07	5	
Types of Activities/Structures	Table 08	5	
Ecological and/or Cultural Resources	Table 09	0	
EHE MODULE TOTAL			**28**

EHE Module Total	EHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected Explosive Hazard
EHE MODULE RATING	**G**

Table 11

CHE Module: CWM Configuration Data Element Table

Directions: Below are seven classifications of CWM configuration and their descriptions. Annotate the score(s) that correspond to **all** CWM configurations known or suspected to be present at the MRS.

Note: The terms *CWM/UXO*, *CWM/DMM*, *physical evidence*, and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
CWM, explosive configuration either UXO or damaged DMM	The CWM known or suspected of being present at the MRS is (a) explosively configured CWM that are UXO (i.e. CWM/UXO), or (b) explosively configured CWM that are DMM (i.e. CWM/DMM) that have been damaged.	30	
CWM mixed with UXO	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged, or nonexplosively configured CWM/DMM, or CWM not configured as a munition, that are commingled with conventional munitions that are UXO.	25	
CWM, explosive configuration that are undamaged DMM	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged.	20	
CWM, not explosively configured or CWM, bulk container	The CWM known or suspected of being present at the MRS is (a) nonexplosively configured CWM/DMM, or (b) bulk CWM/DMM (e.g., ton container).	15	
CAIS K941 and CAIS K942	The CWM/DMM known or suspected of being present at the MRS is CAIS K941(toxic gas set M-1) or CAIS K942 (toxic gas set M-2/E11).	12	
CAIS (chemical agent identification sets)	Only CAIS, other than CAIS K941 and K942, are known or suspected of being present at the MRS.	10	
Evidence of no CWM	Following investigation, the physical evidence indicates that CWM are not present at the MRS, or the historical evidence indicates that CWM are not present at the MRS.	0	0
CWM CONFIGURATION	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**0**

DIRECTIONS: Document any MRS-specific data used in selecting the ***CWM Configuration*** classifications in the space below.

As there are no records of munitions other than small arms and static explosive charges used or found at MRA/MRS No. 6, other types of munitions (e.g., grenades) are not considered to be of concern for this site.

Table 20

Determining the CHE Module Rating

DIRECTIONS:

1. From Tables 11 - 19, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **CHE Module Total** box below.

	Source	Score	Value
CWM Hazard Factor Data Elements			
CWM Configuration	Table 11	0	0
Sources of CWM	Table 12	0	
Accessibility Factor Data Elements			
Location of CWM	Table 13	0	0
Ease of Access	Table 14	0	
Status of Property	Table 15	0	
Receptor Factor Data Elements			
Population Density	Table 16	0	0
Population Near Hazard	Table 17	0	
Types of Activities/Structures	Table 18	0	
Ecological and/or Cultural Resources	Table 19	0	
		CHE MODULE TOTAL	**0**

4. Identify the appropriate range for the **CHE Module Total** at right.

5. Identify the **CHE Module Rating** that corresponds to the range selected and record this rating in the **CHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

CHE Module Total	CHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected CWM Hazard
CHE MODULE RATING	**No Known or Suspected CWM Hazard**

Table 21

HHE Module: Groundwater Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's groundwater and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the groundwater, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
		Sum the Ratios	

CHF Scale	CHF Value
CHF > 100	**H (High)**
100 > CHF >2	**M (Medium)**
2 > CHF	**L (Low)**

CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the groundwater migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the groundwater is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in groundwater has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the groundwater to a potential point of exposure (possibly due to geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the groundwater receptors at the MRS.

Classification	Description	Value
Identified	There is a threatened water supply well downgradient of the source and the groundwater is a current source of drinking water or source of water for other beneficial uses such as irrigation/agriculture (equivalent to Class I or IIA aquifer).	H
Potential	There is no threatened water supply well downgradient of the source and the groundwater is currently or potentially usable for drinking water, irrigation, or agriculture (equivalent to Class I, IIA, or IIB aquifer).	M
Limited	There is no potentially threatened water supply well downgradient of the source and the groundwater is not considered a potential source of drinking water and is of limited beneficial use (equivalent to Class IIIA or IIIB aquifer, or where perched aquifer exists only).	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Groundwater MC Hazard	**X**

Table 22

HHE Module: Surface Water - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface water, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Human Endpoint) MC Hazard	**X**

Table 23

HHE Module: Sediment - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the site's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for human endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		
CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).		

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	
Place an "X" in the box to the right if there is no known or suspected Sediment (Human Endpoint) MC Hazard		**X**

Table 24

HHE Module: Surface Water - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the surface water, select the box at the bottom of the table.

Note: Use either dissolved or total metals analyses.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Ecological Endpoint) MC Hazard	**X**

Table 25

HHE Module: Sediment - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Sediment (Ecological Endpoint) MC Hazard	**X**

Table 26

HHE Module: Surface Soil - Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface soil and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface soil, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface soil migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface soil is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface soil has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface soil to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface soil receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface soil to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface soil to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface soil to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Soil MC Hazard	**X**

Table 27

HHE Module: Supplemental Contaminant Hazard Factor Table

Contaminant Hazard Factor (CHF)

Directions: **Only use this table if there are more than five contaminants present at the MRS.** This is a supplemental table designed to hold information about contaminants that do not fit in the previous tables. Indicate the **media** in which these contaminants are present. Then record all **contaminants**, their **maximum concentrations** and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Calculate and record the **ratio** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** for each medium on the appropriate media-specific tables.

Note: For human exposures to groundwater and surface water, use dissolved, rather than total, metals analyses when both are available. Remember not to add ratios from different media.

Media	Contaminant [CAS No.]	Maximum Concentration	Units	Comparison Value	Units	Ratios
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
					SUBTOTAL FOR SURFACE SOIL	**0**
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
					SUBTOTAL FOR SEDIMENT	**0**
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
					SUBTOTAL FOR SURFACE WATER	**0**
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
					SUBTOTAL FOR GROUNDWATER	**0**

Table 28

Determining the HHE Module Rating

DIRECTIONS:

1. Record the letter values (H, M, L) for the **Contaminant Hazard**, **Migration Pathway**, and **Receptor Factors** for the media (from Tables 21 - 26) in the corresponding boxes below.
2. Record the media's three-letter combinations in the **Three-Letter-Combination** boxes below (three-letter combinations are arranged from Hs to Ms to Ls).
3. Using the reference provided below, determine each medium's rating (A - G) and record the letter in the corresponding **Media Rating** box below.

Medium (Source)	Contaminant Hazard Factor Value	Migratory Pathway Factor Value	Receptor Factor Value	Three-Letter Combination (Hs-Ms-Ls)	Media Rating (A - G)
Table 21 - Groundwater					
Table 22 - Surface Water (Human Endpoint)					
Table 23 - Sediment (Human Endpoint)					
Table 24 - Surface Water (Ecological Endpoint)					
Table 25 - Sediment (Ecological Endpoint)					
Table 26 - Surface Soil					
			HHE MODULE RATING		**No Known or Suspected MC Hazard**

DIRECTIONS (Continued):

4. Select the single highest **Media Rating** (A is the highest; G is the lowest) and enter the letter in the **HHE Module Rating** box below.

HHE Ratings (for reference only)	
HHH	A
HHM	B
HHL	C
HMM	
HML	D
MMM	
HLL	E
MML	
MLL	F
LLL	G

NOTE: An alternative module rating may be assigned when a module letter rating is used when more information is needed to score one or more media, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

Alternative Module Ratings	
	Evaluation Pending
	No Longer Required
	No Known or Suspected MC Hazard

Table 29

MRS Priority

DIRECTIONS: In the chart below, enter the letter **rating** for each module recorded in Table 10 (EHE), Table 20 (CHE), and Table 28 (HHE). Enter the corresponding numerical **priority** for each module. If information to determine the module rating is not available, choose the appropriate alternative module rating. The MRS priority is the single highest priority; record this number in the **MRS or Alternative Priority** box at the bottom of the table.

NOTE: An MRS assigned Priority 1 has the highest relative priority; an MRS assigned Priority 8 has the lowest relative priority. Only an MRS with CWM known or suspected to be present can be assigned Priority 1; an MRS that has CWM known or suspected to be present cannot be assigned Priority 8.

EHE Rating	Priority	CHE Rating	Priority	HHE Rating	Priority
		A	1		
A	2	B	2	A	2
B	3	C	3	B	3
C	4	D	4	C	4
D	5	E	5	D	5
E	6	F	6	E	6
F	7	G	7	F	7
G	8			G	8
Evaluation Pending		Evaluation Pending		Evaluation Pending	
No Longer Required		No Longer Required		No Longer Required	
No Known or Suspected Explosive Hazard		No Known or Suspected CWM Hazard		No Known or Suspected MC Hazard	

Reference Table 10:		Reference Table 20:		Reference Table 28:	
EHE Module Rating	Priority	CHE Module Rating	Priority	HHE Module Rating	Priority
G	8	No Known or Suspected CWM Hazard	No Known or Suspected CWM Hazard	No Known or Suspected MC Hazard	No Known or Suspected MC Hazard

MRS or Alternative Priority	8

Table A

MRS Background Information

DIRECTIONS: Record the background information below for the MRS to be evaluated. Much of this information is available from DoD databases, such as RMIS. If the MRS is located on a FUDS property, the suitable FUDS property information should be substituted. In the MRS summary, briefly describe the UXO, DMM, or MC that are known or suspected to be present, the exposure setting (the MRS's physical environment), any other incidental non-munitions related contaminants found at the MRS (e.g., benzene, trichloroethylene), and any potentially exposed human and ecological receptors. Include a map of the MRS, if one is available.

Munitions Response Site (MRS) Name:	**MRS No. 14, Skeet Range No. 580**
Component:	US Army
Installation/Property Name:	**Camp Adair/Adair Air Force Station**
Location (City, County, State):	Benton County, Oregon
UTM Coordinates (NAD83):	N 494673479, E 483365.00
Site Name (RMIS ID):	Skeet Range No. 580 (F10OR002903R01)
Project Name (Project No.):	Formerly Used Defense Sites, Military Munitions Response Program Site Inspections at Multiple Sites (116188)
Date Information Entered/Updated:	31-May-2007
Point of Contact (Name/Phone):	William Graney/206-764-3494

Project Phase ("X" only one):									
		PA	**X**	**SI**		**RI**		**FS**		**RD**
		RA-C		**RIP**		**RA-O**		**RC**		**LTM**

Media Evaluated ("X" all that apply):				
		Groundwater (human receptor)		**Sediment (human receptor)**
	X	**Surface soil (human receptor)**		**Surface water (ecological receptor)**
		Sediment (ecological receptor)		**Surface water (human receptor)**

MRS Summary

MRS Description: Describe the munitions-related activities that occurred at the installation, the dates of operation, and the UXO, DMM (by type of munition, if known) or munitions constituents (by type, if known) known or suspected to be present):

MRS No. 14 is comprised entirely of Skeet Range No. 580 and was used by the Camp Adair Air Force Station between 1955 and 1964. The range was used only for skeet target shooting using shotguns. Potential contaminants include lead from shotgun shells and PAHs from clay targets. The range area is currently used as a county park with baseball fields, a frizzby golf course, and play area.

Description of Pathways for Human and Ecological Receptors:

The pathways evaluated with respect to MRS No.14 are: terrestrial for humans (direct contact by park workers and visitors).

Description of Receptors (Human and Ecological):

Receptors in the area of MRS No. 14 include recreational users and Benton County Park workers.

Table 1
EHE Module: Munitions Type Data Element Table

Directions: Below are eleven classifications of munitions and their descriptions. Annotate the score(s) that correspond with **all** munitions types known or suspected to be present at the MRS.

Note: The terms *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Sensitive	All UXO that are considered likely to function upon any interaction with exposed persons [e.g., submunitions, 40mm high-explosive (HE) grenades, white phosphorous (WP) munitions, high-explosive antitank (HEAT) munitions, and practice munitions with sensitive fuzes, but excluding all other practice munitions].	30	
	All hand grenades containing energetic filler.		
	Bulk primary explosives, or mixtures of these with environmental media, such that the mixture poses an explosive hazard.		
High explosive (used or damaged)	All UXO containing a high-explosive filler (e.g., RDX, Composition B), that are not considered "sensitive."	25	
	All DMM containing a high-explosive filler that have been damaged by burning or detonation, or deteriorated to the point of instability.		
Pyrotechnic (used or damaged)	All UXO containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades).	20	
	All DMM containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades) that have been damaged by burning or detonation, or deteriorated to the point of instability.		
High explosive (unused)	All DMM containing a high-explosive filler that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	15	
Propellant	All UXO containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor).	15	
	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor) that are damaged by burning or detonation, or deteriorated to the point of instability.		
Bulk secondary high explosives, pyrotechnics, or propellant	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor), that are deteriorated.	10	
	Bulk secondary high explosives, pyrotechnic compositions, or propellant (not contained in a munition), or mixtures of these with environmental media such that the mixture poses an explosive hazard.		
Pyrotechnic (not used or damaged)	All DMM containing a pyrotechnic filler (i.e. red phosphorous), other than white phosphorous filler, that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	10	
Practice	All UXO that are practice munitions that are not associated with a sensitive fuze.	5	
	All DMM that are practice munitions that are not associated with a sensitive fuze and that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.		
Riot control	All UXO or DMM containing a riot control agent filler (e.g., tear gas).	3	
Small arms	All used munitions or DMM that are categorized as small arms ammunition [Physical evidence or historical evidence that no other types of munitions (e.g., grenades, subcaliber training rockets, demolition charges) were used or are present on the MRS is required for selection of this category.].	2	2
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
MUNITIONS TYPE	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**2**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Munitions Type*** classifications in the space below.

The ASR Site Inspection team inspected the MRS No. 14 area. The team reported no ordnance or explosives were found at the MRS (2007 SI Report, Section 4.1.1). The 2006 SI field team inspected the MRS and during sampling identifed one fragment of a clay target (2007 SI Report, Section 5.3.1).

Table 2

EHE Module: Source of Hazard Data Element Table

Directions: Below are eleven classifications describing sources of explosive hazards. Annotate the score(s) that correspond with **all** sources of explosive hazards known or suspected to be present at the MRS.

Note: The terms *former range* , *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Former range	The MRS is a former military range where munitions (including practice munitions with sensitive fuzes) have been used. Such areas include: impact or target areas, associated buffer and safety zones, firing points, and live-fire maneuver areas.	10	
Former munitions treatment (i.e. OB/OD) unit	The MRS is a location where UXO or DMM (e.g., munitions, bulk explosives, bulk pyrotechnic, or bulk propellants) were burned or detonated for the purpose of treatment prior to disposal.	8	
Former practice munitions range	The MRS is a former military range on which only practice munitions without sensitive fuzes were used.	6	
Former maneuver area	The MRS is a former maneuver area where no munitions other than flares, simulators, smokes, and blanks were used. There must be evidence that no other munitions were used at the location to place an MRS into this category.	5	
Former burial pit or other disposal area	The MRS is a location where DMM were buried or disposed of (e.g., disposed of into a water body) without prior thermal treatment.	5	
Former industrial operating facilities	The MRS is a location that is a former munitions maintenance, manufacturing, or demilitarization facility.	4	
Former firing points	The MRS is a firing point, where the firing point is delineated as an MRS separate from the rest of a former military range.	4	
Former missile or air defense artillery emplacements	The MRS is a former missile defense or air defense artillery (ADA) emplacement not associated with a military range.	2	
Former storage or transfer points	The MRS is a location where munitions were stored or handled for transfer between different modes of transportation (e.g., rail to truck, truck to weapon system).	2	
Former small arms range	The MRS is a former military range where only small arms ammunition was used [There must be evidence that no other types of munitions (e.g., grenades) were used or are present to place an MRS iinto this category.].	1	1
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that no UXO or DMM are present, or there is historical evidence indicating that no UXO or DMM are present.	0	
SOURCE OF HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**1**

DIRECTIONS: Document any MRS-specific data used in selecting the **Source of Hazard** classifications in the space below.

MRS No. 14 is comprised entirely of Skeet Range No. 580 and was used by the Camp Adair Air Force Station between 1955 and 1964. The range was used only for skeet target shooting using shotguns (2007 SI Report, Section 5.3.1). The range area is currently used as a county park with baseball fields, a frizzby golf course, and play area.

Table 3
EHE Module: Location of Munitions Data Element Table

Directions: Below are eight classifications of munitions locations and their descriptions. Annotate the score(s) that correspond with **all** locations where munitions are located or suspected of being found at the MRS.

Note: The terms *surface* , *subsurface* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Confirmed surface	Physical evidence indicates that there are UXO or DMM on the surface of the MRS. Historical evidence (e.g., a confirmed incident report or accident report) indicates there are UXO or DMM on the surface of the MRS.	25	
Confirmed subsurface, active	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM.	20	
Confirmed subsurface, stable	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed.	15	
Suspected (physical evidence)	There is physical evidence (e.g., munitions debris, such fragments, penetrators, projectiles, shell casings, links, fins), other than the documented presence of UXO or DMM, indicating that UXO or DMM may be present at the MRS.	10	
Suspected (historical evidence)	There is historical evidence indicating that UXO or DMM may be present at the MRS.	5	
Subsurface, physical constraint	There is physical or historical evidence indicating that UXO or DMM may be present in the subsurface, but there is a physical constraint (e.g., pavement, water depth over 120 feet) preventing direct access to the UXO or DMM.	2	
Small arms (regardless of location)	The presence of small arms ammunition is confirmed or suspected, regardless of other factors such as geological stability [There must be evidence that no other types of munitions (e.g., grenades) were used or are present at the MRS to place an MRS into this category.]	1	1
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
LOCATION OF MUNITIONS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 25).		**1**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Location of Munitions*** classifications in the space below.

The ASR Site Inspection team inspected the MRS No. 14 area. The team reported no ordnance or explosives were found at the MRS (2007 SI Report, Section 4.1.1). The 2006 SI field team inspected the MRS and during sampling identified one fragment of a clay target.

Table 4
EHE Module: Ease of Access Data Element Table

Directions: Below are four classifications of barrier types that can surround an MRS and their descriptions. The barrier type is directly related to the ease of public access to any explosive materiel. Annotate the score that corresponds with the ease of access to the MRS.

Note: The term *barrier* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
No barrier	There is no barrier preventing access to any part of the MRS (i.e. all parts of the MRS are accessible).	10	10
Barrier to MRS access is incomplete	There is a barrier preventing access to parts of the MRS, but not the entire MRS.	8	
Barrier to MRS access is complete but not monitored	There is a barrier preventing access to all parts of the MRS, but there is no surveillance (e.g., by a guard) to ensure that the barrier is effectively preventing access to all parts of the MRS.	5	
Barrier to MRS access is complete and monitored	There is a barrier preventing access to all parts of the MRS, and there is active, continual surveillance (e.g., by a guard, video monitoring) to ensure that the barrier is effectively preventing access to all parts of the MRS.	0	
EASE OF ACCESS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**10**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ease of Access*** classification in the space below.

As of August 2006, there is no fencing or signage restricting or limiting access to the area by the general public and the area is currently a county park.

Table 5
EHE Module: Status of Property Data Element Table

Directions: Below are three classifications of the status of a property within the Department of Defense (DoD) and their descriptions. Annotate the score that corresponds with the status of property at the MRS.

Note: N/A

Classification	Description	Possible Score	Score
Non-DoD control	The MRS is at a location that is no longer owned by, leased to, or otherwise possessed or used by DoD. Examples are privately owned land or water bodies; land or water bodies owned or controlled by state, tribal, or local governments; and land or water bodies managed by other federal agencies.	5	5
Scheduled for transfer from DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD, and DoD plans to transfer that land or water body to the control of another entity (e.g., a state, tribal, or local government; a private party; another federal agency) within 3 years from the date the rule is applied.	3	
DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD. With respect to property that is leased or otherwise possessed, DoD must control access to the MRS 24 hours per day, every day of the calendar year.	0	
STATUS OF PROPERTY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Status of Property*** classification in the space below.

Camp Adair was acquired by the Army beginning in 1941. In 1946, the War Department declared Camp Adair surplus and was assigned to the War Assets Administration for disposition under the Surplus Property Act. In 1946, the property was transferred to the Department of Agriculture for sale by the Federal Land Bank. The current owner is Benton County.

Table 6
EHE Module: Population Density Data Element Table

Directions: Below are three classifications of population density and their descriptions. Determine the population density per square mile in the vicinity of the MRS and annotate the score that corresponds with the associated population density.

Note: If an MRS is located in more than one county, use the largest population density value among the counties. If the MRS is within or borders a city or town, use the population density for the city or town, rather than that of the county.

Classification	Description	Possible Score	Score
> 500 persons per square mile	There are more than 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	5	
100 - 500 persons per square mile	There are 100 to 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	3	
< 100 persons per square mile	There are fewer than 100 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	1	1
POPULATION DENSITY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**1**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Density*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 7
EHE Module: Population Near Hazard Data Element Table

Directions: Below are six classifications describing the number of inhabited structures near the MRS. The number of inhabited buildings relates to the population near the hazard. Determine the number of inhabited structures within two miles of the MRS boundary and annotate the score that corresponds with the associated population near the known or suspected hazard.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
26 or more inhabited structures	There are 26 or more inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	5	5
16 to 25 inhabited structures	There are 16 to 25 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	4	
11 to 15 inhabited structures	There are 11 to 15 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	3	
6 to 10 inhabited structures	There are 6 to 10 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	2	
1 to 5 inhabited structures	There are 1 to 5 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	1	
0 inhabited structures	There are no inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	0	
POPULATION NEAR HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Near Hazard*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 8

EHE Module: Types of Activities/Structures Data Element Table

Directions: Below are five classifications of activities and/or inhabited structures near the hazard and their descriptions. Review the types of activities that occur and/or structures that are present within two miles of the MRS and annotate the score(s) that correspond with **all** the activities/structure classifications at the MRS.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Residential, educational, commercial, or subsistence	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with any of the following purposes: residential, educational, child care, critical assets (e.g., hospitals, fire and rescue, police stations, dams), hotels, commercial, shopping centers, playgrounds, community gathering areas, religious sites, or sites used for subsistence hunting, fishing, and gathering.	5	5
Parks and recreational areas	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with parks, nature preserves, or other recreational uses.	4	4
Agricultural, forestry	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with agriculture or forestry.	3	3
Industrial or warehousing	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with industrial activities or warehousing.	2	
No known or recurring activities	There are no known or recurring activities occurring up to two miles from the MRS's boundary or within the MRS's boundary.	1	
TYPES OF ACTIVITIES/STRUCTURES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Types of Activities/Structures*** classifications in the space below.

TThe 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 9

EHE Module: Ecological and/or Cultural Resources Data Element Table

Directions: Below are four classifications of ecological and/or cultural resources and their descriptions. Review the types of resources present and annotate the score that corresponds with the ecological and/or cultural resource classifications at the MRS.

Note: The terms *ecological resources* and *cultural resources* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Ecological and cultural resources present	There are both ecological and cultural resources present on the MRS.	5	
Ecological resources present	There are ecological resources present on the MRS.	3	
Cultural resources present	There are cultural resources present on the MRS.	3	
No ecological or cultural resources present	There are no ecological resources or cultural resources present on the MRS.	0	0
ECOLOGICAL AND/OR CULTURAL RESOURCES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**0**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ecological and/or Cultural Resources*** classification in the space below.

The State Historic Preservation Office (SHPO), U.S. Forest Service (USFS), and the Oregon Department of Fish and Wildlife (ODFW) were contacted regarding cultural and natural resources. The SHPO indicated that no potential cultural/archaeological resources were within the currently identified MRS No. 14. The ODFW, Oregon Department of Agriculture, and the U.S. Fish and Wildlife Service were contacted regarding identification of any potentially impacted, threatened, or endangered species at Camp Adair. Two plant species are known to grow in the Camp Adair area. However, the agencies were not concerned with the proposed site activities because of the fact they were minimally invasive (2007 SI Report, Sections 2.4.7, 3.2.1 and 3.2.2).

Table 10

Determining the EHE Module Rating

DIRECTIONS:

1. From Tables 01 - 09, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **EHE Module Total** box below.

4. Identify the appropriate range for the **EHE Module Total** at right.

5. Identify the **EHE Module Rating** that corresponds to the range selected and record this rating in the **EHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

	Source	Score	Value
Explosive Hazard Factor Data Elements			
Munitions Type	Table 01	2	3
Source of Hazard	Table 02	1	
Accessibility Factor Data Elements			
Location of Munitions	Table 03	1	16
Ease of Access	Table 04	10	
Status of Property	Table 05	5	
Receptor Factor Data Elements			
Population Density	Table 06	1	11
Population Near Hazard	Table 07	5	
Types of Activities/Structures	Table 08	5	
Ecological and/or Cultural Resources	Table 09	0	
EHE MODULE TOTAL			**30**

EHE Module Total	EHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected Explosive Hazard
EHE MODULE RATING	**G**

Table 11

CHE Module: CWM Configuration Data Element Table

Directions: Below are seven classifications of CWM configuration and their descriptions. Annotate the score(s) that correspond to **all** CWM configurations known or suspected to be present at the MRS.

Note: The terms *CWM/UXO*, *CWM/DMM*, *physical evidence*, and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
CWM, explosive configuration either UXO or damaged DMM	The CWM known or suspected of being present at the MRS is (a) explosively configured CWM that are UXO (i.e. CWM/UXO), or (b) explosively configured CWM that are DMM (i.e. CWM/DMM) that have been damaged.	30	
CWM mixed with UXO	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged, or nonexplosively configured CWM/DMM, or CWM not configured as a munition, that are commingled with conventional munitions that are UXO.	25	
CWM, explosive configuration that are undamaged DMM	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged.	20	
CWM, not explosively configured or CWM, bulk container	The CWM known or suspected of being present at the MRS is (a) nonexplosively configured CWM/DMM, or (b) bulk CWM/DMM (e.g., ton container).	15	
CAIS K941 and CAIS K942	The CWM/DMM known or suspected of being present at the MRS is CAIS K941(toxic gas set M-1) or CAIS K942 (toxic gas set M-2/E11).	12	
CAIS (chemical agent identification sets)	Only CAIS, other than CAIS K941 and K942, are known or suspected of being present at the MRS.	10	
Evidence of no CWM	Following investigation, the physical evidence indicates that CWM are not present at the MRS, or the historical evidence indicates that CWM are not present at the MRS.	0	0
CWM CONFIGURATION	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**0**

DIRECTIONS: Document any MRS-specific data used in selecting the ***CWM Configuration*** classifications in the space below.

As there are no records of munitions other than shotguns (small arms) being used or found at MRA/MRS No. 8, other types of munitions (e.g., grenades) are not considered to be of concern for this site.

Table 20

Determining the CHE Module Rating

DIRECTIONS:

1. From Tables 11 - 19, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **CHE Module Total** box below.

	Source	Score	Value
CWM Hazard Factor Data Elements			
CWM Configuration	Table 11	0	0
Sources of CWM	Table 12	0	
Accessibility Factor Data Elements			
Location of CWM	Table 13	0	0
Ease of Access	Table 14	0	
Status of Property	Table 15	0	
Receptor Factor Data Elements			
Population Density	Table 16	0	0
Population Near Hazard	Table 17	0	
Types of Activities/Structures	Table 18	0	
Ecological and/or Cultural Resources	Table 19	0	
		CHE MODULE TOTAL	**0**

4. Identify the appropriate range for the **CHE Module Total** at right.

5. Identify the **CHE Module Rating** that corresponds to the range selected and record this rating in the **CHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

CHE Module Total	CHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected CWM Hazard
CHE MODULE RATING	**No Known or Suspected CWM Hazard**

Table 21

HHE Module: Groundwater Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's groundwater and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the groundwater, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
		Sum the Ratios	

CHF Scale	CHF Value	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**
100 > CHF >2	**M (Medium)**	
2 > CHF	**L (Low)**	

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the groundwater migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the groundwater is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in groundwater has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the groundwater to a potential point of exposure (possibly due to geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the groundwater receptors at the MRS.

Classification	Description	Value
Identified	There is a threatened water supply well downgradient of the source and the groundwater is a current source of drinking water or source of water for other beneficial uses such as irrigation/agriculture (equivalent to Class I or IIA aquifer).	H
Potential	There is no threatened water supply well downgradient of the source and the groundwater is currently or potentially usable for drinking water, irrigation, or agriculture (equivalent to Class I, IIA, or IIB aquifer).	M
Limited	There is no potentially threatened water supply well downgradient of the source and the groundwater is not considered a potential source of drinking water and is of limited beneficial use (equivalent to Class IIIA or IIIB aquifer, or where perched aquifer exists only).	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Groundwater MC Hazard	**X**

Table 22

HHE Module: Surface Water - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface water, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Human Endpoint) MC Hazard	**X**

Table 23

HHE Module: Sediment - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the site's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for human endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		
CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).		

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	
Place an "X" in the box to the right if there is no known or suspected Sediment (Human Endpoint) MC Hazard		**X**

Table 24

HHE Module: Surface Water - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the surface water, select the box at the bottom of the table.

Note: Use either dissolved or total metals analyses.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		
CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).		

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Ecological Endpoint) MC Hazard	**X**

Table 25

HHE Module: Sediment - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Sediment (Ecological Endpoint) MC Hazard	**X**

Table 26

HHE Module: Surface Soil - Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface soil and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface soil, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
7439-92-1 (Lead)	58.40	400.00	0
83-32-0 (Acenaphthene)	0.01	360.00	0
56-55-3 (Benz(a)anthracene)	0.04	61.00	0
50-32-8 (Benzo(a)pyrene)	0.06	6.10	0
205-99-2 (Benzo(b)fluoranthene)	0.06	61.00	0
		Total from Table 27	0
		Sum the Ratios	0

CHF Scale	CHF Value
CHF > 100	H (High)
100 > CHF >2	M (Medium)
2 > CHF	L (Low)

CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	**L**

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface soil migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface soil is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface soil has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface soil to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	**M**

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface soil receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface soil to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface soil to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface soil to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	**M**

Place an "X" in the box to the right if there is no known or suspected Surface Soil MC Hazard	

Table 27

HHE Module: Supplemental Contaminant Hazard Factor Table

Contaminant Hazard Factor (CHF)

Directions: **Only use this table if there are more than five contaminants present at the MRS.** This is a supplemental table designed to hold information about contaminants that do not fit in the previous tables. Indicate the **media** in which these contaminants are present. Then record all **contaminants**, their **maximum concentrations** and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Calculate and record the **ratio** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** for each medium on the appropriate media-specific tables.

Note: For human exposures to groundwater and surface water, use dissolved, rather than total, metals analyses when both are available. Remember not to add ratios from different media.

Media	Contaminant [CAS No.]	Maximum Concentration	Units	Comparison Value	Units	Ratios
Surface soil	191-24-2 (Benzo(ghi)perylene)	0.05	mg/kg	2,300.00	mg/kg	0
Surface soil	207-08-9 (Benzo(k)fluoranthene)	0.02	mg/kg	610.00	mg/kg	0
Surface soil	218-01-9 (Chrysene)	0.04	mg/kg	2,400.00	mg/kg	0
Surface soil	206-40-0 (Fluoranthene)	0.04	mg/kg	2,600.00	mg/kg	0
Surface soil	139-39-5 (Indeno(1,2,3-cd)pyrene)	0.04	mg/kg	61.00	mg/kg	0
Surface soil	Phenanthrene	0.02	mg/kg	2,300.00	mg/kg	0
Surface soil	Pyrene	0.04	mg/kg	2,000.00	mg/kg	0
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
				SUBTOTAL FOR SURFACE SOIL		**0**
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
				SUBTOTAL FOR SEDIMENT		**0**
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
				SUBTOTAL FOR SURFACE WATER		**0**
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
				SUBTOTAL FOR GROUNDWATER		**0**

Table 28

Determining the HHE Module Rating

DIRECTIONS:

1. Record the letter values (H, M, L) for the **Contaminant Hazard**, **Migration Pathway**, and **Receptor Factors** for the media (from Tables 21 - 26) in the corresponding boxes below.
2. Record the media's three-letter combinations in the **Three-Letter-Combination** boxes below (three-letter combinations are arranged from Hs to Ms to Ls).
3. Using the reference provided below, determine each medium's rating (A - G) and record the letter in the corresponding **Media Rating** box below.

Medium (Source)	Contaminant Hazard Factor Value	Migratory Pathway Factor Value	Receptor Factor Value	Three-Letter Combination (Hs-Ms-Ls)	Media Rating (A - G)
Table 21 - Groundwater					
Table 22 - Surface Water (Human Endpoint)					
Table 23 - Sediment (Human Endpoint)					
Table 24 - Surface Water (Ecological Endpoint)					
Table 25 - Sediment (Ecological Endpoint)					
Table 26 - Surface Soil	L	M	M	MML	G
			HHE MODULE RATING		**E**

DIRECTIONS (Continued):

4. Select the single highest **Media Rating** (A is the highest; G is the lowest) and enter the letter in the **HHE Module Rating** box below.

HHE Ratings (for reference only)	
HHH	A
HHM	B
HHL	C
HMM	
HML	D
MMM	
HLL	E
MML	
MLL	F
LLL	G

NOTE: An alternative module rating may be assigned when a module letter rating is used when more information is needed to score one or more media, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

Alternative Module Ratings	
	Evaluation Pending
	No Longer Required
	No Known or Suspected MC Hazard

Table 29

MRS Priority

DIRECTIONS: In the chart below, enter the letter **rating** for each module recorded in Table 10 (EHE), Table 20 (CHE), and Table 28 (HHE). Enter the corresponding numerical **priority** for each module. If information to determine the module rating is not available, choose the appropriate alternative module rating. The MRS priority is the single highest priority; record this number in the **MRS or Alternative Priority** box at the bottom of the table.

NOTE: An MRS assigned Priority 1 has the highest relative priority; an MRS assigned Priority 8 has the lowest relative priority. Only an MRS with CWM known or suspected to be present can be assigned Priority 1; an MRS that has CWM known or suspected to be present cannot be assigned Priority 8.

EHE Rating	Priority	CHE Rating	Priority	HHE Rating	Priority
		A	1		
A	2	B	2	A	2
B	3	C	3	B	3
C	4	D	4	C	4
D	5	E	5	D	5
E	6	F	6	E	6
F	7	G	7	F	7
G	8			G	8
Evaluation Pending		Evaluation Pending		Evaluation Pending	
No Longer Required		No Longer Required		No Longer Required	
No Known or Suspected Explosive Hazard		No Known or Suspected CWM Hazard		No Known or Suspected MC Hazard	

Reference Table 10:		Reference Table 20:		Reference Table 28:	
EHE Module Rating	Priority	CHE Module Rating	Priority	HHE Module Rating	Priority
G	8	No Known or Suspected CWM Hazard	No Known or Suspected CWM Hazard	E	6

MRS or Alternative Priority	6

Table A

MRS Background Information

DIRECTIONS: Record the background information below for the MRS to be evaluated. Much of this information is available from DoD databases, such as RMIS. If the MRS is located on a FUDS property, the suitable FUDS property information should be substituted. In the MRS summary, briefly describe the UXO, DMM, or MC that are known or suspected to be present, the exposure setting (the MRS's physical environment), any other incidental non-munitions related contaminants found at the MRS (e.g., benzene, trichloroethylene), and any potentially exposed human and ecological receptors. Include a map of the MRS, if one is available.

Munitions Response Site (MRS) Name:	**MRS No. 15, Practice Grenade Court No. 120**
Component:	US Army
Installation/Property Name:	**Camp Adair/Adair Air Force Station**
Location (City, County, State):	Benton County, Oregon
UTM Coordinates (NAD83):	N 4947139.20, E 484528.50
Site Name (RMIS ID):	Practice Grenade Court No. 120 (F10OR002903R03)
Project Name (Project No.):	Formerly Used Defense Sites, Military Munitions Response Program Site Inspections at Multiple Sites (116188)
Date Information Entered/Updated:	31-May-2007
Point of Contact (Name/Phone):	William Graney/206-764-3494

Project Phase ("X" only one):									
		PA	**X**	**SI**		**RI**		**FS**		**RD**
		RA-C		**RIP**		**RA-O**		**RC**		**LTM**

Media Evaluated ("X" all that apply):				
		Groundwater (human receptor)		**Sediment (human receptor)**
		Surface soil (human receptor)		**Surface water (ecological receptor)**
		Sediment (ecological receptor)		**Surface water (human receptor)**

MRS Summary

MRS Description: Describe the munitions-related activities that occurred at the installation, the dates of operation, and the UXO, DMM (by type of munition, if known) or munitions constituents (by type, if known) known or suspected to be present):

MRS No. 15 consists of Practice Grenade Court No. 120. This court was used by Camp Adair between 1942 and 1945. The MRS was used for training in practice hand grenades. Grenades used were M21 Practice Hand Grenade and Mk 1A1 Practice Hand Grenade. No MEC has been reported in the past. The range area is currently used for growing agricultural crops.

Description of Pathways for Human and Ecological Receptors:

The potential pathways for MRS No. 15 are: terrestrial for humans (agricultural workers) and ecological (ingestion and uptake by wildlife and plants).

Description of Receptors (Human and Ecological):

Receptors in the area of the MRS No. 15 would be agricultural workers and wildlife.

Table 1
EHE Module: Munitions Type Data Element Table

Directions: Below are eleven classifications of munitions and their descriptions. Annotate the score(s) that correspond with **all** munitions types known or suspected to be present at the MRS.

Note: The terms *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Sensitive	All UXO that are considered likely to function upon any interaction with exposed persons [e.g., submunitions, 40mm high-explosive (HE) grenades, white phosphorous (WP) munitions, high-explosive antitank (HEAT) munitions, and practice munitions with sensitive fuzes, but excluding all other practice munitions].	30	
	All hand grenades containing energetic filler.		
	Bulk primary explosives, or mixtures of these with environmental media, such that the mixture poses an explosive hazard.		
High explosive (used or damaged)	All UXO containing a high-explosive filler (e.g., RDX, Composition B), that are not considered "sensitive."	25	
	All DMM containing a high-explosive filler that have been damaged by burning or detonation, or deteriorated to the point of instability.		
Pyrotechnic (used or damaged)	All UXO containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades).	20	
	All DMM containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades) that have been damaged by burning or detonation, or deteriorated to the point of instability.		
High explosive (unused)	All DMM containing a high-explosive filler that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	15	
Propellant	All UXO containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor).	15	
	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor) that are damaged by burning or detonation, or deteriorated to the point of instability.		
Bulk secondary high explosives, pyrotechnics, or propellant	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor), that are deteriorated.	10	
	Bulk secondary high explosives, pyrotechnic compositions, or propellant (not contained in a munition), or mixtures of these with environmental media such that the mixture poses an explosive hazard.		
Pyrotechnic (not used or damaged)	All DMM containing a pyrotechnic filler (i.e. red phosphorous), other than white phosphorous filler, that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	10	
Practice	All UXO that are practice munitions that are not associated with a sensitive fuze.	5	5
	All DMM that are practice munitions that are not associated with a sensitive fuze and that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.		
Riot control	All UXO or DMM containing a riot control agent filler (e.g., tear gas).	3	
Small arms	All used munitions or DMM that are categorized as small arms ammunition [Physical evidence or historical evidence that no other types of munitions (e.g., grenades, subcaliber training rockets, demolition charges) were used or are present on the MRS is required for selection of this category.].	2	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
MUNITIONS TYPE	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Munitions Type*** classifications in the space below.

The ASR Site Inspection team inspected MRS No. 15. The team reported no evidence of the court was found and there was no munitions debris found. The 2006 SI field team did not inspect this MRS. Practice grenades have been found in the past by farmers at other practice grenades courts at Camp Adair (2007 SI Report, Section 4.2.4).

Table 2

EHE Module: Source of Hazard Data Element Table

Directions: Below are eleven classifications describing sources of explosive hazards. Annotate the score(s) that correspond with **all** sources of explosive hazards known or suspected to be present at the MRS.

Note: The terms *former range* , *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Former range	The MRS is a former military range where munitions (including practice munitions with sensitive fuzes) have been used. Such areas include: impact or target areas, associated buffer and safety zones, firing points, and live-fire maneuver areas.	10	
Former munitions treatment (i.e. OB/OD) unit	The MRS is a location where UXO or DMM (e.g., munitions, bulk explosives, bulk pyrotechnic, or bulk propellants) were burned or detonated for the purpose of treatment prior to disposal.	8	
Former practice munitions range	The MRS is a former military range on which only practice munitions without sensitive fuzes were used.	6	6
Former maneuver area	The MRS is a former maneuver area where no munitions other than flares, simulators, smokes, and blanks were used. There must be evidence that no other munitions were used at the location to place an MRS into this category.	5	
Former burial pit or other disposal area	The MRS is a location where DMM were buried or disposed of (e.g., disposed of into a water body) without prior thermal treatment.	5	
Former industrial operating facilities	The MRS is a location that is a former munitions maintenance, manufacturing, or demilitarization facility.	4	
Former firing points	The MRS is a firing point, where the firing point is delineated as an MRS separate from the rest of a former military range.	4	
Former missile or air defense artillery emplacements	The MRS is a former missile defense or air defense artillery (ADA) emplacement not associated with a military range.	2	
Former storage or transfer points	The MRS is a location where munitions were stored or handled for transfer between different modes of transportation (e.g., rail to truck, truck to weapon system).	2	
Former small arms range	The MRS is a former military range where only small arms ammunition was used [There must be evidence that no other types of munitions (e.g., grenades) were used or are present to place an MRS iinto this category.].	1	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that no UXO or DMM are present, or there is historical evidence indicating that no UXO or DMM are present.	0	
SOURCE OF HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**6**

DIRECTIONS: Document any MRS-specific data used in selecting the **Source of Hazard** classifications in the space below.

MRS No. 15 consists of Practice Grenade Court No. 120. This court was used by Camp Adair between 1942 and 1945. The MRS was used for training in practice hand grenades. Grenades used were M21 Practice Hand Grenade and Mk 1A1 Practice Hand Grenade. No MEC has been reported in the past. Practice grenades have been found in the past by farmers at other practice grenades courts at Camp Adair (2007 SI Report, Section 4.2.4).

Table 3
EHE Module: Location of Munitions Data Element Table

Directions: Below are eight classifications of munitions locations and their descriptions. Annotate the score(s) that correspond with **all** locations where munitions are located or suspected of being found at the MRS.

Note: The terms *surface* , *subsurface* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Confirmed surface	Physical evidence indicates that there are UXO or DMM on the surface of the MRS. Historical evidence (e.g., a confirmed incident report or accident report) indicates there are UXO or DMM on the surface of the MRS.	25	
Confirmed subsurface, active	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM.	20	
Confirmed subsurface, stable	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed.	15	
Suspected (physical evidence)	There is physical evidence (e.g., munitions debris, such fragments, penetrators, projectiles, shell casings, links, fins), other than the documented presence of UXO or DMM, indicating that UXO or DMM may be present at the MRS.	10	
Suspected (historical evidence)	There is historical evidence indicating that UXO or DMM may be present at the MRS.	5	5
Subsurface, physical constraint	There is physical or historical evidence indicating that UXO or DMM may be present in the subsurface, but there is a physical constraint (e.g., pavement, water depth over 120 feet) preventing direct access to the UXO or DMM.	2	
Small arms (regardless of location)	The presence of small arms ammunition is confirmed or suspected, regardless of other factors such as geological stability [There must be evidence that no other types of munitions (e.g., grenades) were used or are present at the MRS to place an MRS into this category.]	1	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
LOCATION OF MUNITIONS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 25).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Location of Munitions*** classifications in the space below.

The ASR Site Inspection team inspected MRS No. 15. The team reported no evidence of the court was found and there was no munitions debris found. The 2006 SI field team did not inspect this MRS. Practice grenades have been found in the past by farmers at other practice grenades courts at Camp Adair (2007 SI Report, Section 4.2.4).

Table 4
EHE Module: Ease of Access Data Element Table

Directions: Below are four classifications of barrier types that can surround an MRS and their descriptions. The barrier type is directly related to the ease of public access to any explosive materiel. Annotate the score that corresponds with the ease of access to the MRS.

Note: The term *barrier* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
No barrier	There is no barrier preventing access to any part of the MRS (i.e. all parts of the MRS are accessible).	10	10
Barrier to MRS access is incomplete	There is a barrier preventing access to parts of the MRS, but not the entire MRS.	8	
Barrier to MRS access is complete but not monitored	There is a barrier preventing access to all parts of the MRS, but there is no surveillance (e.g., by a guard) to ensure that the barrier is effectively preventing access to all parts of the MRS.	5	
Barrier to MRS access is complete and monitored	There is a barrier preventing access to all parts of the MRS, and there is active, continual surveillance (e.g., by a guard, video monitoring) to ensure that the barrier is effectively preventing access to all parts of the MRS.	0	
EASE OF ACCESS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**10**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ease of Access*** classification in the space below.

As of August 2006, there is no fencing or signage restricting or limiting access to the area by the general public and the area is currently used for growing crops.

Table 5
EHE Module: Status of Property Data Element Table

Directions: Below are three classifications of the status of a property within the Department of Defense (DoD) and their descriptions. Annotate the score that corresponds with the status of property at the MRS.

Note: N/A

Classification	Description	Possible Score	Score
Non-DoD control	The MRS is at a location that is no longer owned by, leased to, or otherwise possessed or used by DoD. Examples are privately owned land or water bodies; land or water bodies owned or controlled by state, tribal, or local governments; and land or water bodies managed by other federal agencies.	5	5
Scheduled for transfer from DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD, and DoD plans to transfer that land or water body to the control of another entity (e.g., a state, tribal, or local government; a private party; another federal agency) within 3 years from the date the rule is applied.	3	
DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD. With respect to property that is leased or otherwise possessed, DoD must control access to the MRS 24 hours per day, every day of the calendar year.	0	
STATUS OF PROPERTY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Status of Property*** classification in the space below.

Camp Adair was acquired by the Army beginning in 1941. In 1946, the War Department declared Camp Adair surplus and was assigned to the War Assets Administration for disposition under the Surplus Property Act. In 1946, the property was transferred to the Department of Agriculture for sale by the Federal Land Bank. As of 2006, property ownership of this MRS is by private citizens. There is no controlled access to the FUDS.

Table 6
EHE Module: Population Density Data Element Table

Directions: Below are three classifications of population density and their descriptions. Determine the population density per square mile in the vicinity of the MRS and annotate the score that corresponds with the associated population density.

Note: If an MRS is located in more than one county, use the largest population density value among the counties. If the MRS is within or borders a city or town, use the population density for the city or town, rather than that of the county.

Classification	Description	Possible Score	Score
> 500 persons per square mile	There are more than 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	5	
100 - 500 persons per square mile	There are 100 to 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	3	
< 100 persons per square mile	There are fewer than 100 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	1	1
POPULATION DENSITY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**1**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Density*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 7
EHE Module: Population Near Hazard Data Element Table

Directions: Below are six classifications describing the number of inhabited structures near the MRS. The number of inhabited buildings relates to the population near the hazard. Determine the number of inhabited structures within two miles of the MRS boundary and annotate the score that corresponds with the associated population near the known or suspected hazard.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
26 or more inhabited structures	There are 26 or more inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	5	5
16 to 25 inhabited structures	There are 16 to 25 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	4	
11 to 15 inhabited structures	There are 11 to 15 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	3	
6 to 10 inhabited structures	There are 6 to 10 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	2	
1 to 5 inhabited structures	There are 1 to 5 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	1	
0 inhabited structures	There are no inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	0	
POPULATION NEAR HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Near Hazard*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 8

EHE Module: Types of Activities/Structures Data Element Table

Directions: Below are five classifications of activities and/or inhabited structures near the hazard and their descriptions. Review the types of activities that occur and/or structures that are present within two miles of the MRS and annotate the score(s) that correspond with **all** the activities/structure classifications at the MRS.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Residential, educational, commercial, or subsistence	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with any of the following purposes: residential, educational, child care, critical assets (e.g., hospitals, fire and rescue, police stations, dams), hotels, commercial, shopping centers, playgrounds, community gathering areas, religious sites, or sites used for subsistence hunting, fishing, and gathering.	5	5
Parks and recreational areas	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with parks, nature preserves, or other recreational uses.	4	4
Agricultural, forestry	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with agriculture or forestry.	3	3
Industrial or warehousing	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with industrial activities or warehousing.	2	
No known or recurring activities	There are no known or recurring activities occurring up to two miles from the MRS's boundary or within the MRS's boundary.	1	
TYPES OF ACTIVITIES/STRUCTURES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Types of Activities/Structures*** classifications in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 9

EHE Module: Ecological and/or Cultural Resources Data Element Table

Directions: Below are four classifications of ecological and/or cultural resources and their descriptions. Review the types of resources present and annotate the score that corresponds with the ecological and/or cultural resource classifications at the MRS.

Note: The terms *ecological resources* and *cultural resources* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Ecological and cultural resources present	There are both ecological and cultural resources present on the MRS.	5	
Ecological resources present	There are ecological resources present on the MRS.	3	
Cultural resources present	There are cultural resources present on the MRS.	3	
No ecological or cultural resources present	There are no ecological resources or cultural resources present on the MRS.	0	0
ECOLOGICAL AND/OR CULTURAL RESOURCES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**0**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ecological and/or Cultural Resources*** classification in the space below.

The State Historic Preservation Office (SHPO), U.S. Forest Service (USFS), and the Oregon Department of Fish and Wildlife (ODFW) were contacted regarding cultural and natural resources. The SHPO indicated that no potential cultural/archaeological resources were within the currently identified MRS No. 15. The ODFW, Oregon Department of Agriculture, and the U.S. Fish and Wildlife Service were contacted regarding identification of any potentially impacted, threatened, or endangered species at Camp Adair. Two plant species are known to grow in the Camp Adair area. However, the agencies were not concerned with the proposed site activities because of the fact they were minimally invasive (2007 SI Report, Sections 2.4.7, 3.2.1 and 3.2.2). This MRS is currently used for growing crops.

Table 10

Determining the EHE Module Rating

DIRECTIONS:

1. From Tables 01 - 09, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **EHE Module Total** box below.

4. Identify the appropriate range for the **EHE Module Total** at right.

5. Identify the **EHE Module Rating** that corresponds to the range selected and record this rating in the **EHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

	Source	Score	Value
Explosive Hazard Factor Data Elements			
Munitions Type	Table 01	5	11
Source of Hazard	Table 02	6	
Accessibility Factor Data Elements			
Location of Munitions	Table 03	5	20
Ease of Access	Table 04	10	
Status of Property	Table 05	5	
Receptor Factor Data Elements			
Population Density	Table 06	1	11
Population Near Hazard	Table 07	5	
Types of Activities/Structures	Table 08	5	
Ecological and/or Cultural Resources	Table 09	0	
EHE MODULE TOTAL			**42**

EHE Module Total	EHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected Explosive Hazard
EHE MODULE RATING	**F**

Table 11

CHE Module: CWM Configuration Data Element Table

Directions: Below are seven classifications of CWM configuration and their descriptions. Annotate the score(s) that correspond to **all** CWM configurations known or suspected to be present at the MRS.

Note: The terms *CWM/UXO*, *CWM/DMM*, *physical evidence*, and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
CWM, explosive configuration either UXO or damaged DMM	The CWM known or suspected of being present at the MRS is (a) explosively configured CWM that are UXO (i.e. CWM/UXO), or (b) explosively configured CWM that are DMM (i.e. CWM/DMM) that have been damaged.	30	
CWM mixed with UXO	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged, or nonexplosively configured CWM/DMM, or CWM not configured as a munition, that are commingled with conventional munitions that are UXO.	25	
CWM, explosive configuration that are undamaged DMM	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged.	20	
CWM, not explosively configured or CWM, bulk container	The CWM known or suspected of being present at the MRS is (a) nonexplosively configured CWM/DMM, or (b) bulk CWM/DMM (e.g., ton container).	15	
CAIS K941 and CAIS K942	The CWM/DMM known or suspected of being present at the MRS is CAIS K941(toxic gas set M-1) or CAIS K942 (toxic gas set M-2/E11).	12	
CAIS (chemical agent identification sets)	Only CAIS, other than CAIS K941 and K942, are known or suspected of being present at the MRS.	10	
Evidence of no CWM	Following investigation, the physical evidence indicates that CWM are not present at the MRS, or the historical evidence indicates that CWM are not present at the MRS.	0	0
CWM CONFIGURATION	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**0**

DIRECTIONS: Document any MRS-specific data used in selecting the ***CWM Configuration*** classifications in the space below.

As there are no records of munitions other than practice grenades being used at this MRA/MRS.

Table 20

Determining the CHE Module Rating

DIRECTIONS:

1. From Tables 11 - 19, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **CHE Module Total** box below.

	Source	Score	Value
CWM Hazard Factor Data Elements			
CWM Configuration	Table 11	0	0
Sources of CWM	Table 12	0	
Accessibility Factor Data Elements			
Location of CWM	Table 13	0	0
Ease of Access	Table 14	0	
Status of Property	Table 15	0	
Receptor Factor Data Elements			
Population Density	Table 16	0	0
Population Near Hazard	Table 17	0	
Types of Activities/Structures	Table 18	0	
Ecological and/or Cultural Resources	Table 19	0	
		CHE MODULE TOTAL	**0**

4. Identify the appropriate range for the **CHE Module Total** at right.

5. Identify the **CHE Module Rating** that corresponds to the range selected and record this rating in the **CHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

CHE Module Total	CHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected CWM Hazard
CHE MODULE RATING	**No Known or Suspected CWM Hazard**

Table 21

HHE Module: Groundwater Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's groundwater and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the groundwater, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
		Sum the Ratios	

CHF Scale	CHF Value
CHF > 100	**H (High)**
100 > CHF >2	**M (Medium)**
2 > CHF	**L (Low)**

CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the groundwater migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the groundwater is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in groundwater has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the groundwater to a potential point of exposure (possibly due to geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the groundwater receptors at the MRS.

Classification	Description	Value
Identified	There is a threatened water supply well downgradient of the source and the groundwater is a current source of drinking water or source of water for other beneficial uses such as irrigation/agriculture (equivalent to Class I or IIA aquifer).	H
Potential	There is no threatened water supply well downgradient of the source and the groundwater is currently or potentially usable for drinking water, irrigation, or agriculture (equivalent to Class I, IIA, or IIB aquifer).	M
Limited	There is no potentially threatened water supply well downgradient of the source and the groundwater is not considered a potential source of drinking water and is of limited beneficial use (equivalent to Class IIIA or IIIB aquifer, or where perched aquifer exists only).	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Groundwater MC Hazard	**X**

Table 22

HHE Module: Surface Water - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface water, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Human Endpoint) MC Hazard	**X**

Table 23

HHE Module: Sediment - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the site's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for human endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		
CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).		

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	
Place an "X" in the box to the right if there is no known or suspected Sediment (Human Endpoint) MC Hazard		**X**

Table 24

HHE Module: Surface Water - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the surface water, select the box at the bottom of the table.

Note: Use either dissolved or total metals analyses.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Ecological Endpoint) MC Hazard	**X**

Table 25

HHE Module: Sediment - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Sediment (Ecological Endpoint) MC Hazard	**X**

Table 26

HHE Module: Surface Soil - Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface soil and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface soil, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface soil migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface soil is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface soil has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface soil to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface soil receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface soil to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface soil to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface soil to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Soil MC Hazard	**X**

Table 27

HHE Module: Supplemental Contaminant Hazard Factor Table

Contaminant Hazard Factor (CHF)

Directions: **Only use this table if there are more than five contaminants present at the MRS.** This is a supplemental table designed to hold information about contaminants that do not fit in the previous tables. Indicate the **media** in which these contaminants are present. Then record all **contaminants**, their **maximum concentrations** and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Calculate and record the **ratio** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** for each medium on the appropriate media-specific tables.

Note: For human exposures to groundwater and surface water, use dissolved, rather than total, metals analyses when both are available. Remember not to add ratios from different media.

Media	Contaminant [CAS No.]	Maximum Concentration	Units	Comparison Value	Units	Ratios
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
					SUBTOTAL FOR SURFACE SOIL	**0**
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
					SUBTOTAL FOR SEDIMENT	**0**
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
					SUBTOTAL FOR SURFACE WATER	**0**
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
					SUBTOTAL FOR GROUNDWATER	**0**

Table 28

Determining the HHE Module Rating

DIRECTIONS:

1. Record the letter values (H, M, L) for the **Contaminant Hazard**, **Migration Pathway**, and **Receptor Factors** for the media (from Tables 21 - 26) in the corresponding boxes below.
2. Record the media's three-letter combinations in the **Three-Letter-Combination** boxes below (three-letter combinations are arranged from Hs to Ms to Ls).
3. Using the reference provided below, determine each medium's rating (A - G) and record the letter in the corresponding **Media Rating** box below.

Medium (Source)	Contaminant Hazard Factor Value	Migratory Pathway Factor Value	Receptor Factor Value	Three-Letter Combination (Hs-Ms-Ls)	Media Rating (A - G)
Table 21 - Groundwater					
Table 22 - Surface Water (Human Endpoint)					
Table 23 - Sediment (Human Endpoint)					
Table 24 - Surface Water (Ecological Endpoint)					
Table 25 - Sediment (Ecological Endpoint)					
Table 26 - Surface Soil					
			HHE MODULE RATING		**No Known or Suspected MC Hazard**

DIRECTIONS (Continued):

4. Select the single highest **Media Rating** (A is the highest; G is the lowest) and enter the letter in the **HHE Module Rating** box below.

HHE Ratings (for reference only)	
HHH	A
HHM	B
HHL	C
HMM	
HML	D
MMM	
HLL	E
MML	
MLL	F
LLL	G

NOTE: An alternative module rating may be assigned when a module letter rating is used when more information is needed to score one or more media, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

Alternative Module Ratings	
	Evaluation Pending
	No Longer Required
	No Known or Suspected MC Hazard

Table 29

MRS Priority

DIRECTIONS: In the chart below, enter the letter **rating** for each module recorded in Table 10 (EHE), Table 20 (CHE), and Table 28 (HHE). Enter the corresponding numerical **priority** for each module. If information to determine the module rating is not available, choose the appropriate alternative module rating. The MRS priority is the single highest priority; record this number in the **MRS or Alternative Priority** box at the bottom of the table.

NOTE: An MRS assigned Priority 1 has the highest relative priority; an MRS assigned Priority 8 has the lowest relative priority. Only an MRS with CWM known or suspected to be present can be assigned Priority 1; an MRS that has CWM known or suspected to be present cannot be assigned Priority 8.

EHE Rating	Priority	CHE Rating	Priority	HHE Rating	Priority
		A	1		
A	2	B	2	A	2
B	3	C	3	B	3
C	4	D	4	C	4
D	5	E	5	D	5
E	6	F	6	E	6
F	7	G	7	F	7
G	8			G	8
Evaluation Pending		Evaluation Pending		Evaluation Pending	
No Longer Required		No Longer Required		No Longer Required	
No Known or Suspected Explosive Hazard		No Known or Suspected CWM Hazard		No Known or Suspected MC Hazard	

Reference Table 10:		Reference Table 20:		Reference Table 28:	
EHE Module Rating	Priority	CHE Module Rating	Priority	HHE Module Rating	Priority
F	7	No Known or Suspected CWM Hazard	No Known or Suspected CWM Hazard	No Known or Suspected MC Hazard	No Known or Suspected MC Hazard

MRS or Alternative Priority	7

Table A

MRS Background Information

DIRECTIONS: Record the background information below for the MRS to be evaluated. Much of this information is available from DoD databases, such as RMIS. If the MRS is located on a FUDS property, the suitable FUDS property information should be substituted. In the MRS summary, briefly describe the UXO, DMM, or MC that are known or suspected to be present, the exposure setting (the MRS's physical environment), any other incidental non-munitions related contaminants found at the MRS (e.g., benzene, trichloroethylene), and any potentially exposed human and ecological receptors. Include a map of the MRS, if one is available.

Munitions Response Site (MRS) Name:	**MRS No. 16, Practice Grenade Court No. 121**
Component:	US Army
Installation/Property Name:	**Camp Adair/Adair Air Force Station**
Location (City, County, State):	Benton County, Oregon
UTM Coordinates (NAD83):	N 4947423.09, E 484522.58
Site Name (RMIS ID):	Practice Grenade Court No. 121 (F10OR002903R04)
Project Name (Project No.):	Formerly Used Defense Sites, Military Munitions Response Program Site Inspections at Multiple Sites (116188)
Date Information Entered/Updated:	31-May-2007
Point of Contact (Name/Phone):	William Graney/206-764-3494

Project Phase ("X" only one):									
		PA	**X**	**SI**		**RI**		**FS**		**RD**
		RA-C		**RIP**		**RA-O**		**RC**		**LTM**

Media Evaluated ("X" all that apply):				
		Groundwater (human receptor)		**Sediment (human receptor)**
		Surface soil (human receptor)		**Surface water (ecological receptor)**
		Sediment (ecological receptor)		**Surface water (human receptor)**

MRS Summary

MRS Description: Describe the munitions-related activities that occurred at the installation, the dates of operation, and the UXO, DMM (by type of munition, if known) or munitions constituents (by type, if known) known or suspected to be present):

MRS No. 16 consists of Practice Grenade Court No. 121. This court was used by Camp Adair between 1942 and 1945. The MRS was used for training in practice hand grenades. Grenades used were M21 Practice Hand Grenade and Mk 1A1 Practice Hand Grenade. No MEC has been reported in the past. The range area is currently used for growing agricultural crops.

Description of Pathways for Human and Ecological Receptors:

The potential pathways for MRS No. 16 are: terrestrial for humans (agricultural workers) and ecological (ingestion and uptake by wildlife and plants).

Description of Receptors (Human and Ecological):

Receptors in this MRS would be agricultural workers and wildlife.

Table 1
EHE Module: Munitions Type Data Element Table

Directions: Below are eleven classifications of munitions and their descriptions. Annotate the score(s) that correspond with **all** munitions types known or suspected to be present at the MRS.

Note: The terms *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Sensitive	All UXO that are considered likely to function upon any interaction with exposed persons [e.g., submunitions, 40mm high-explosive (HE) grenades, white phosphorous (WP) munitions, high-explosive antitank (HEAT) munitions, and practice munitions with sensitive fuzes, but excluding all other practice munitions].	30	
	All hand grenades containing energetic filler.		
	Bulk primary explosives, or mixtures of these with environmental media, such that the mixture poses an explosive hazard.		
High explosive (used or damaged)	All UXO containing a high-explosive filler (e.g., RDX, Composition B), that are not considered "sensitive."	25	
	All DMM containing a high-explosive filler that have been damaged by burning or detonation, or deteriorated to the point of instability.		
Pyrotechnic (used or damaged)	All UXO containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades).	20	
	All DMM containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades) that have been damaged by burning or detonation, or deteriorated to the point of instability.		
High explosive (unused)	All DMM containing a high-explosive filler that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	15	
Propellant	All UXO containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor).	15	
	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor) that are damaged by burning or detonation, or deteriorated to the point of instability.		
Bulk secondary high explosives, pyrotechnics, or propellant	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor), that are deteriorated.	10	
	Bulk secondary high explosives, pyrotechnic compositions, or propellant (not contained in a munition), or mixtures of these with environmental media such that the mixture poses an explosive hazard.		
Pyrotechnic (not used or damaged)	All DMM containing a pyrotechnic filler (i.e. red phosphorous), other than white phosphorous filler, that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	10	
Practice	All UXO that are practice munitions that are not associated with a sensitive fuze.	5	5
	All DMM that are practice munitions that are not associated with a sensitive fuze and that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.		
Riot control	All UXO or DMM containing a riot control agent filler (e.g., tear gas).	3	
Small arms	All used munitions or DMM that are categorized as small arms ammunition [Physical evidence or historical evidence that no other types of munitions (e.g., grenades, subcaliber training rockets, demolition charges) were used or are present on the MRS is required for selection of this category.].	2	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
MUNITIONS TYPE	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Munitions Type*** classifications in the space below.

The ASR Site Inspection team inspected the MRS No. 16. The team reported no evidence of the courts was found and there was no munitions debris found. The 2006 SI field team did not inspect this MRS. Practice grenades have been found in the past by farmers at other practice grenades courts at Camp Adair (2007 SI Report, Section 4.2.4).

Table 2

EHE Module: Source of Hazard Data Element Table

Directions: Below are eleven classifications describing sources of explosive hazards. Annotate the score(s) that correspond with **all** sources of explosive hazards known or suspected to be present at the MRS.

Note: The terms *former range* , *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Former range	The MRS is a former military range where munitions (including practice munitions with sensitive fuzes) have been used. Such areas include: impact or target areas, associated buffer and safety zones, firing points, and live-fire maneuver areas.	10	
Former munitions treatment (i.e. OB/OD) unit	The MRS is a location where UXO or DMM (e.g., munitions, bulk explosives, bulk pyrotechnic, or bulk propellants) were burned or detonated for the purpose of treatment prior to disposal.	8	
Former practice munitions range	The MRS is a former military range on which only practice munitions without sensitive fuzes were used.	6	6
Former maneuver area	The MRS is a former maneuver area where no munitions other than flares, simulators, smokes, and blanks were used. There must be evidence that no other munitions were used at the location to place an MRS into this category.	5	
Former burial pit or other disposal area	The MRS is a location where DMM were buried or disposed of (e.g., disposed of into a water body) without prior thermal treatment.	5	
Former industrial operating facilities	The MRS is a location that is a former munitions maintenance, manufacturing, or demilitarization facility.	4	
Former firing points	The MRS is a firing point, where the firing point is delineated as an MRS separate from the rest of a former military range.	4	
Former missile or air defense artillery emplacements	The MRS is a former missile defense or air defense artillery (ADA) emplacement not associated with a military range.	2	
Former storage or transfer points	The MRS is a location where munitions were stored or handled for transfer between different modes of transportation (e.g., rail to truck, truck to weapon system).	2	
Former small arms range	The MRS is a former military range where only small arms ammunition was used [There must be evidence that no other types of munitions (e.g., grenades) were used or are present to place an MRS iinto this category.].	1	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that no UXO or DMM are present, or there is historical evidence indicating that no UXO or DMM are present.	0	
SOURCE OF HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**6**

DIRECTIONS: Document any MRS-specific data used in selecting the **Source of Hazard** classifications in the space below.

MRS No. 16 consists of Practice Grenade Court No. 121. This court was used by Camp Adair between 1942 and 1945. The MRS was used for training in practice hand grenades. Grenades used were M21 Practice Hand Grenade and Mk 1A1 Practice Hand Grenade. No MEC has been reported in the past. Practice grenades have been found in the past by farmers at other practice grenades courts at Camp Adair (2007 SI Report, Section 4.2.4).

Table 3
EHE Module: Location of Munitions Data Element Table

Directions: Below are eight classifications of munitions locations and their descriptions. Annotate the score(s) that correspond with **all** locations where munitions are located or suspected of being found at the MRS.

Note: The terms *surface* , *subsurface* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Confirmed surface	Physical evidence indicates that there are UXO or DMM on the surface of the MRS. Historical evidence (e.g., a confirmed incident report or accident report) indicates there are UXO or DMM on the surface of the MRS.	25	
Confirmed subsurface, active	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM.	20	
Confirmed subsurface, stable	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed.	15	
Suspected (physical evidence)	There is physical evidence (e.g., munitions debris, such fragments, penetrators, projectiles, shell casings, links, fins), other than the documented presence of UXO or DMM, indicating that UXO or DMM may be present at the MRS.	10	
Suspected (historical evidence)	There is historical evidence indicating that UXO or DMM may be present at the MRS.	5	5
Subsurface, physical constraint	There is physical or historical evidence indicating that UXO or DMM may be present in the subsurface, but there is a physical constraint (e.g., pavement, water depth over 120 feet) preventing direct access to the UXO or DMM.	2	
Small arms (regardless of location)	The presence of small arms ammunition is confirmed or suspected, regardless of other factors such as geological stability [There must be evidence that no other types of munitions (e.g., grenades) were used or are present at the MRS to place an MRS into this category.]	1	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
LOCATION OF MUNITIONS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 25).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Location of Munitions*** classifications in the space below.

The ASR Site Inspection team inspected the MRS No. 16. The team reported no evidence of the courts was found and there was no munitions debris found. The 2006 SI field team did not inspect this MRS. Practice grenades have been found in the past by farmers at other practice grenades courts at Camp Adair (2007 SI Report, Section 4.2.4).

Table 4
EHE Module: Ease of Access Data Element Table

Directions: Below are four classifications of barrier types that can surround an MRS and their descriptions. The barrier type is directly related to the ease of public access to any explosive materiel. Annotate the score that corresponds with the ease of access to the MRS.

Note: The term *barrier* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
No barrier	There is no barrier preventing access to any part of the MRS (i.e. all parts of the MRS are accessible).	10	10
Barrier to MRS access is incomplete	There is a barrier preventing access to parts of the MRS, but not the entire MRS.	8	
Barrier to MRS access is complete but not monitored	There is a barrier preventing access to all parts of the MRS, but there is no surveillance (e.g., by a guard) to ensure that the barrier is effectively preventing access to all parts of the MRS.	5	
Barrier to MRS access is complete and monitored	There is a barrier preventing access to all parts of the MRS, and there is active, continual surveillance (e.g., by a guard, video monitoring) to ensure that the barrier is effectively preventing access to all parts of the MRS.	0	
EASE OF ACCESS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**10**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ease of Access*** classification in the space below.

As of August 2006, there is no fencing or signage restricting or limiting access to the area by the general public and the area is currently used for growing crops.

Table 5
EHE Module: Status of Property Data Element Table

Directions: Below are three classifications of the status of a property within the Department of Defense (DoD) and their descriptions. Annotate the score that corresponds with the status of property at the MRS.

Note: N/A

Classification	Description	Possible Score	Score
Non-DoD control	The MRS is at a location that is no longer owned by, leased to, or otherwise possessed or used by DoD. Examples are privately owned land or water bodies; land or water bodies owned or controlled by state, tribal, or local governments; and land or water bodies managed by other federal agencies.	5	5
Scheduled for transfer from DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD, and DoD plans to transfer that land or water body to the control of another entity (e.g., a state, tribal, or local government; a private party; another federal agency) within 3 years from the date the rule is applied.	3	
DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD. With respect to property that is leased or otherwise possessed, DoD must control access to the MRS 24 hours per day, every day of the calendar year.	0	
STATUS OF PROPERTY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Status of Property*** classification in the space below.

Camp Adair was acquired by the Army beginning in 1941. In 1946, the War Department declared Camp Adair surplus and was assigned to the War Assets Administration for disposition under the Surplus Property Act. In 1946, the property was transferred to the Department of Agriculture for sale by the Federal Land Bank. As of 2006, property ownership of this MRS is by private citizens. There is no controlled access to the FUDS.

Table 6
EHE Module: Population Density Data Element Table

Directions: Below are three classifications of population density and their descriptions. Determine the population density per square mile in the vicinity of the MRS and annotate the score that corresponds with the associated population density.

Note: If an MRS is located in more than one county, use the largest population density value among the counties. If the MRS is within or borders a city or town, use the population density for the city or town, rather than that of the county.

Classification	Description	Possible Score	Score
> 500 persons per square mile	There are more than 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	5	
100 - 500 persons per square mile	There are 100 to 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	3	
< 100 persons per square mile	There are fewer than 100 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	1	1
POPULATION DENSITY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**1**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Density*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 7
EHE Module: Population Near Hazard Data Element Table

Directions: Below are six classifications describing the number of inhabited structures near the MRS. The number of inhabited buildings relates to the population near the hazard. Determine the number of inhabited structures within two miles of the MRS boundary and annotate the score that corresponds with the associated population near the known or suspected hazard.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
26 or more inhabited structures	There are 26 or more inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	5	5
16 to 25 inhabited structures	There are 16 to 25 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	4	
11 to 15 inhabited structures	There are 11 to 15 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	3	
6 to 10 inhabited structures	There are 6 to 10 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	2	
1 to 5 inhabited structures	There are 1 to 5 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	1	
0 inhabited structures	There are no inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	0	
POPULATION NEAR HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Near Hazard*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 8

EHE Module: Types of Activities/Structures Data Element Table

Directions: Below are five classifications of activities and/or inhabited structures near the hazard and their descriptions. Review the types of activities that occur and/or structures that are present within two miles of the MRS and annotate the score(s) that correspond with **all** the activities/structure classifications at the MRS.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Residential, educational, commercial, or subsistence	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with any of the following purposes: residential, educational, child care, critical assets (e.g., hospitals, fire and rescue, police stations, dams), hotels, commercial, shopping centers, playgrounds, community gathering areas, religious sites, or sites used for subsistence hunting, fishing, and gathering.	5	5
Parks and recreational areas	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with parks, nature preserves, or other recreational uses.	4	4
Agricultural, forestry	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with agriculture or forestry.	3	3
Industrial or warehousing	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with industrial activities or warehousing.	2	
No known or recurring activities	There are no known or recurring activities occurring up to two miles from the MRS's boundary or within the MRS's boundary.	1	
TYPES OF ACTIVITIES/STRUCTURES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Types of Activities/Structures*** classifications in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 9

EHE Module: Ecological and/or Cultural Resources Data Element Table

Directions: Below are four classifications of ecological and/or cultural resources and their descriptions. Review the types of resources present and annotate the score that corresponds with the ecological and/or cultural resource classifications at the MRS.

Note: The terms *ecological resources* and *cultural resources* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Ecological and cultural resources present	There are both ecological and cultural resources present on the MRS.	5	
Ecological resources present	There are ecological resources present on the MRS.	3	
Cultural resources present	There are cultural resources present on the MRS.	3	
No ecological or cultural resources present	There are no ecological resources or cultural resources present on the MRS.	0	0
ECOLOGICAL AND/OR CULTURAL RESOURCES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**0**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ecological and/or Cultural Resources*** classification in the space below.

The State Historic Preservation Office (SHPO), U.S. Forest Service (USFS), and the Oregon Department of Fish and Wildlife (ODFW) were contacted regarding cultural and natural resources. The SHPO indicated that no potential cultural/archaeological resources were within the currently identified MRS No. 16. The ODFW, Oregon Department of Agriculture, and the U.S. Fish and Wildlife Service were contacted regarding identification of any potentially impacted, threatened, or endangered species at Camp Adair. Two plant species are known to grow in the Camp Adair area. However, the agencies were not concerned with the proposed site activities because of the fact they were minimally invasive (2007 SI Report, Sections 2.4.7, 3.2.1 and 3.2.2). This MRS is currently used for growing crops.

Table 10

Determining the EHE Module Rating

DIRECTIONS:

1. From Tables 01 - 09, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **EHE Module Total** box below.

4. Identify the appropriate range for the **EHE Module Total** at right.

5. Identify the **EHE Module Rating** that corresponds to the range selected and record this rating in the **EHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

	Source	Score	Value
Explosive Hazard Factor Data Elements			
Munitions Type	Table 01	5	11
Source of Hazard	Table 02	6	
Accessibility Factor Data Elements			
Location of Munitions	Table 03	5	20
Ease of Access	Table 04	10	
Status of Property	Table 05	5	
Receptor Factor Data Elements			
Population Density	Table 06	1	11
Population Near Hazard	Table 07	5	
Types of Activities/Structures	Table 08	5	
Ecological and/or Cultural Resources	Table 09	0	
EHE MODULE TOTAL			**42**

EHE Module Total	EHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected Explosive Hazard
EHE MODULE RATING	**F**

Table 11

CHE Module: CWM Configuration Data Element Table

Directions: Below are seven classifications of CWM configuration and their descriptions. Annotate the score(s) that correspond to **all** CWM configurations known or suspected to be present at the MRS.

Note: The terms *CWM/UXO*, *CWM/DMM*, *physical evidence*, and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
CWM, explosive configuration either UXO or damaged DMM	The CWM known or suspected of being present at the MRS is (a) explosively configured CWM that are UXO (i.e. CWM/UXO), or (b) explosively configured CWM that are DMM (i.e. CWM/DMM) that have been damaged.	30	
CWM mixed with UXO	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged, or nonexplosively configured CWM/DMM, or CWM not configured as a munition, that are commingled with conventional munitions that are UXO.	25	
CWM, explosive configuration that are undamaged DMM	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged.	20	
CWM, not explosively configured or CWM, bulk container	The CWM known or suspected of being present at the MRS is (a) nonexplosively configured CWM/DMM, or (b) bulk CWM/DMM (e.g., ton container).	15	
CAIS K941 and CAIS K942	The CWM/DMM known or suspected of being present at the MRS is CAIS K941(toxic gas set M-1) or CAIS K942 (toxic gas set M-2/E11).	12	
CAIS (chemical agent identification sets)	Only CAIS, other than CAIS K941 and K942, are known or suspected of being present at the MRS.	10	
Evidence of no CWM	Following investigation, the physical evidence indicates that CWM are not present at the MRS, or the historical evidence indicates that CWM are not present at the MRS.	0	0
CWM CONFIGURATION	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**0**

DIRECTIONS: Document any MRS-specific data used in selecting the ***CWM Configuration*** classifications in the space below.

As there are no records of munitions other than practice grenades being used at this MRA/MRS.

Table 20

Determining the CHE Module Rating

DIRECTIONS:

1. From Tables 11 - 19, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **CHE Module Total** box below.

	Source	Score	Value
CWM Hazard Factor Data Elements			
CWM Configuration	Table 11	0	0
Sources of CWM	Table 12	0	
Accessibility Factor Data Elements			
Location of CWM	Table 13	0	0
Ease of Access	Table 14	0	
Status of Property	Table 15	0	
Receptor Factor Data Elements			
Population Density	Table 16	0	0
Population Near Hazard	Table 17	0	
Types of Activities/Structures	Table 18	0	
Ecological and/or Cultural Resources	Table 19	0	
		CHE MODULE TOTAL	**0**

4. Identify the appropriate range for the **CHE Module Total** at right.

5. Identify the **CHE Module Rating** that corresponds to the range selected and record this rating in the **CHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

CHE Module Total	CHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected CWM Hazard
CHE MODULE RATING	**No Known or Suspected CWM Hazard**

Table 21

HHE Module: Groundwater Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's groundwater and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the groundwater, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
		Sum the Ratios	

CHF Scale	CHF Value
CHF > 100	**H (High)**
100 > CHF >2	**M (Medium)**
2 > CHF	**L (Low)**

CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the groundwater migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the groundwater is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in groundwater has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the groundwater to a potential point of exposure (possibly due to geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the groundwater receptors at the MRS.

Classification	Description	Value
Identified	There is a threatened water supply well downgradient of the source and the groundwater is a current source of drinking water or source of water for other beneficial uses such as irrigation/agriculture (equivalent to Class I or IIA aquifer).	H
Potential	There is no threatened water supply well downgradient of the source and the groundwater is currently or potentially usable for drinking water, irrigation, or agriculture (equivalent to Class I, IIA, or IIB aquifer).	M
Limited	There is no potentially threatened water supply well downgradient of the source and the groundwater is not considered a potential source of drinking water and is of limited beneficial use (equivalent to Class IIIA or IIIB aquifer, or where perched aquifer exists only).	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Groundwater MC Hazard	**X**

Table 22

HHE Module: Surface Water - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface water, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Human Endpoint) MC Hazard	**X**

Table 23

HHE Module: Sediment - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the site's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for human endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		
CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).		

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	
Place an "X" in the box to the right if there is no known or suspected Sediment (Human Endpoint) MC Hazard		**X**

Table 24

HHE Module: Surface Water - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the surface water, select the box at the bottom of the table.

Note: Use either dissolved or total metals analyses.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Ecological Endpoint) MC Hazard	**X**

Table 25

HHE Module: Sediment - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Sediment (Ecological Endpoint) MC Hazard	**X**

Table 26

HHE Module: Surface Soil - Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface soil and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface soil, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface soil migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface soil is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface soil has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface soil to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface soil receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface soil to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface soil to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface soil to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Soil MC Hazard	**X**

Table 27

HHE Module: Supplemental Contaminant Hazard Factor Table

Contaminant Hazard Factor (CHF)

Directions: **Only use this table if there are more than five contaminants present at the MRS.** This is a supplemental table designed to hold information about contaminants that do not fit in the previous tables. Indicate the **media** in which these contaminants are present. Then record all **contaminants**, their **maximum concentrations** and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Calculate and record the **ratio** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** for each medium on the appropriate media-specific tables.

Note: For human exposures to groundwater and surface water, use dissolved, rather than total, metals analyses when both are available. Remember not to add ratios from different media.

Media	Contaminant [CAS No.]	Maximum Concentration	Units	Comparison Value	Units	Ratios
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
					SUBTOTAL FOR SURFACE SOIL	**0**
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
					SUBTOTAL FOR SEDIMENT	**0**
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
					SUBTOTAL FOR SURFACE WATER	**0**
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
					SUBTOTAL FOR GROUNDWATER	**0**

Table 28

Determining the HHE Module Rating

DIRECTIONS:

1. Record the letter values (H, M, L) for the **Contaminant Hazard**, **Migration Pathway**, and **Receptor Factors** for the media (from Tables 21 - 26) in the corresponding boxes below.
2. Record the media's three-letter combinations in the **Three-Letter-Combination** boxes below (three-letter combinations are arranged from Hs to Ms to Ls).
3. Using the reference provided below, determine each medium's rating (A - G) and record the letter in the corresponding **Media Rating** box below.

Medium (Source)	Contaminant Hazard Factor Value	Migratory Pathway Factor Value	Receptor Factor Value	Three-Letter Combination (Hs-Ms-Ls)	Media Rating (A - G)
Table 21 - Groundwater					
Table 22 - Surface Water (Human Endpoint)					
Table 23 - Sediment (Human Endpoint)					
Table 24 - Surface Water (Ecological Endpoint)					
Table 25 - Sediment (Ecological Endpoint)					
Table 26 - Surface Soil					
			HHE MODULE RATING		**No Known or Suspected MC Hazard**

DIRECTIONS (Continued):

4. Select the single highest **Media Rating** (A is the highest; G is the lowest) and enter the letter in the **HHE Module Rating** box below.

HHE Ratings (for reference only)	
HHH	A
HHM	B
HHL	C
HMM	
HML	D
MMM	
HLL	E
MML	
MLL	F
LLL	G

NOTE: An alternative module rating may be assigned when a module letter rating is used when more information is needed to score one or more media, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

Alternative Module Ratings	
	Evaluation Pending
	No Longer Required
	No Known or Suspected MC Hazard

Table 29

MRS Priority

DIRECTIONS: In the chart below, enter the letter **rating** for each module recorded in Table 10 (EHE), Table 20 (CHE), and Table 28 (HHE). Enter the corresponding numerical **priority** for each module. If information to determine the module rating is not available, choose the appropriate alternative module rating. The MRS priority is the single highest priority; record this number in the **MRS or Alternative Priority** box at the bottom of the table.

NOTE: An MRS assigned Priority 1 has the highest relative priority; an MRS assigned Priority 8 has the lowest relative priority. Only an MRS with CWM known or suspected to be present can be assigned Priority 1; an MRS that has CWM known or suspected to be present cannot be assigned Priority 8.

EHE Rating	Priority	CHE Rating	Priority	HHE Rating	Priority
		A	1		
A	2	B	2	A	2
B	3	C	3	B	3
C	4	D	4	C	4
D	5	E	5	D	5
E	6	F	6	E	6
F	7	G	7	F	7
G	8			G	8
Evaluation Pending		Evaluation Pending		Evaluation Pending	
No Longer Required		No Longer Required		No Longer Required	
No Known or Suspected Explosive Hazard		No Known or Suspected CWM Hazard		No Known or Suspected MC Hazard	

Reference Table 10:		Reference Table 20:		Reference Table 28:	
EHE Module Rating	Priority	CHE Module Rating	Priority	HHE Module Rating	Priority
F	7	No Known or Suspected CWM Hazard	No Known or Suspected CWM Hazard	No Known or Suspected MC Hazard	No Known or Suspected MC Hazard

MRS or Alternative Priority	7

Table A

MRS Background Information

DIRECTIONS: Record the background information below for the MRS to be evaluated. Much of this information is available from DoD databases, such as RMIS. If the MRS is located on a FUDS property, the suitable FUDS property information should be substituted. In the MRS summary, briefly describe the UXO, DMM, or MC that are known or suspected to be present, the exposure setting (the MRS's physical environment), any other incidental non-munitions related contaminants found at the MRS (e.g., benzene, trichloroethylene), and any potentially exposed human and ecological receptors. Include a map of the MRS, if one is available.

Munitions Response Site (MRS) Name:	**MRS No. 17, Practice Grenade Court No. 122**
Component:	US Army
Installation/Property Name:	**Camp Adair/Adair Air Force Station**
Location (City, County, State):	Benton County, Oregon
UTM Coordinates (NAD83):	N 4947420.78, E 484201.15
Site Name (RMIS ID):	Practice Grenade Court No. 122 (F10OR002903R02)
Project Name (Project No.):	Formerly Used Defense Sites, Military Munitions Response Program Site Inspections at Multiple Sites (116188)
Date Information Entered/Updated:	31-May-2007
Point of Contact (Name/Phone):	William Graney/206-764-3494

Project Phase ("X" only one):									
		PA	**X**	**SI**		**RI**		**FS**		**RD**
		RA-C		**RIP**		**RA-O**		**RC**		**LTM**

Media Evaluated ("X" all that apply):				
		Groundwater (human receptor)		**Sediment (human receptor)**
		Surface soil (human receptor)		**Surface water (ecological receptor)**
		Sediment (ecological receptor)		**Surface water (human receptor)**

MRS Summary

MRS Description: Describe the munitions-related activities that occurred at the installation, the dates of operation, and the UXO, DMM (by type of munition, if known) or munitions constituents (by type, if known) known or suspected to be present):

MRS No. 17 consists of Practice Grenade Court No. 122. This court was used by Camp Adair between 1942 and 1945. The MRS was used for training in practice hand grenades. Grenades used were M21 Practice Hand Grenade and Mk 1A1 Practice Hand Grenade. No MEC has been reported in the past. The range area is currently used for growing agricultural crops.

Description of Pathways for Human and Ecological Receptors:

The potential pathways for MRS No. 17 are: terrestrial for humans (agricultural workers) and ecological (ingestion and uptake by wildlife and plants).

Description of Receptors (Human and Ecological):

Receptors in this MRS would be agricultural workers and wildlife.

Table 1
EHE Module: Munitions Type Data Element Table

Directions: Below are eleven classifications of munitions and their descriptions. Annotate the score(s) that correspond with **all** munitions types known or suspected to be present at the MRS.

Note: The terms *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Sensitive	All UXO that are considered likely to function upon any interaction with exposed persons [e.g., submunitions, 40mm high-explosive (HE) grenades, white phosphorous (WP) munitions, high-explosive antitank (HEAT) munitions, and practice munitions with sensitive fuzes, but excluding all other practice munitions].	30	
	All hand grenades containing energetic filler.		
	Bulk primary explosives, or mixtures of these with environmental media, such that the mixture poses an explosive hazard.		
High explosive (used or damaged)	All UXO containing a high-explosive filler (e.g., RDX, Composition B), that are not considered "sensitive."	25	
	All DMM containing a high-explosive filler that have been damaged by burning or detonation, or deteriorated to the point of instability.		
Pyrotechnic (used or damaged)	All UXO containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades).	20	
	All DMM containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades) that have been damaged by burning or detonation, or deteriorated to the point of instability.		
High explosive (unused)	All DMM containing a high-explosive filler that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	15	
Propellant	All UXO containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor).	15	
	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor) that are damaged by burning or detonation, or deteriorated to the point of instability.		
Bulk secondary high explosives, pyrotechnics, or propellant	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor), that are deteriorated.	10	
	Bulk secondary high explosives, pyrotechnic compositions, or propellant (not contained in a munition), or mixtures of these with environmental media such that the mixture poses an explosive hazard.		
Pyrotechnic (not used or damaged)	All DMM containing a pyrotechnic filler (i.e. red phosphorous), other than white phosphorous filler, that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	10	
Practice	All UXO that are practice munitions that are not associated with a sensitive fuze.	5	5
	All DMM that are practice munitions that are not associated with a sensitive fuze and that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.		
Riot control	All UXO or DMM containing a riot control agent filler (e.g., tear gas).	3	
Small arms	All used munitions or DMM that are categorized as small arms ammunition [Physical evidence or historical evidence that no other types of munitions (e.g., grenades, subcaliber training rockets, demolition charges) were used or are present on the MRS is required for selection of this category.].	2	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
MUNITIONS TYPE	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Munitions Type*** classifications in the space below.

The ASR Site Inspection team inspected the MRS No. 17. The team reported no evidence of the court was found and there was no munitions debris found. The 2006 SI field team did not inspect this MRS. Practice grenades have been found in the past by farmers at other practice grenades courts at Camp Adair (2007 SI Report, Section 4.2.4)

Table 2

EHE Module: Source of Hazard Data Element Table

Directions: Below are eleven classifications describing sources of explosive hazards. Annotate the score(s) that correspond with **all** sources of explosive hazards known or suspected to be present at the MRS.

Note: The terms *former range* , *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Former range	The MRS is a former military range where munitions (including practice munitions with sensitive fuzes) have been used. Such areas include: impact or target areas, associated buffer and safety zones, firing points, and live-fire maneuver areas.	10	
Former munitions treatment (i.e. OB/OD) unit	The MRS is a location where UXO or DMM (e.g., munitions, bulk explosives, bulk pyrotechnic, or bulk propellants) were burned or detonated for the purpose of treatment prior to disposal.	8	
Former practice munitions range	The MRS is a former military range on which only practice munitions without sensitive fuzes were used.	6	6
Former maneuver area	The MRS is a former maneuver area where no munitions other than flares, simulators, smokes, and blanks were used. There must be evidence that no other munitions were used at the location to place an MRS into this category.	5	
Former burial pit or other disposal area	The MRS is a location where DMM were buried or disposed of (e.g., disposed of into a water body) without prior thermal treatment.	5	
Former industrial operating facilities	The MRS is a location that is a former munitions maintenance, manufacturing, or demilitarization facility.	4	
Former firing points	The MRS is a firing point, where the firing point is delineated as an MRS separate from the rest of a former military range.	4	
Former missile or air defense artillery emplacements	The MRS is a former missile defense or air defense artillery (ADA) emplacement not associated with a military range.	2	
Former storage or transfer points	The MRS is a location where munitions were stored or handled for transfer between different modes of transportation (e.g., rail to truck, truck to weapon system).	2	
Former small arms range	The MRS is a former military range where only small arms ammunition was used [There must be evidence that no other types of munitions (e.g., grenades) were used or are present to place an MRS iinto this category.].	1	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that no UXO or DMM are present, or there is historical evidence indicating that no UXO or DMM are present.	0	
SOURCE OF HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**6**

DIRECTIONS: Document any MRS-specific data used in selecting the **Source of Hazard** classifications in the space below.

MRS No. 17 consists of Practice Grenade Court No. 122. This court was used by Camp Adair between 1942 and 1945. The MRS was used for training in practice hand grenades. Grenades used were M21 Practice Hand Grenade and Mk 1A1 Practice Hand Grenade. No MEC has been reported in the past. Practice grenades have been found in the past by farmers at other practice grenades courts at Camp Adair (2007 SI Report, Section 4.2.4).

Table 3
EHE Module: Location of Munitions Data Element Table

Directions: Below are eight classifications of munitions locations and their descriptions. Annotate the score(s) that correspond with **all** locations where munitions are located or suspected of being found at the MRS.

Note: The terms *surface* , *subsurface* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Confirmed surface	Physical evidence indicates that there are UXO or DMM on the surface of the MRS. Historical evidence (e.g., a confirmed incident report or accident report) indicates there are UXO or DMM on the surface of the MRS.	25	
Confirmed subsurface, active	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM.	20	
Confirmed subsurface, stable	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed.	15	
Suspected (physical evidence)	There is physical evidence (e.g., munitions debris, such fragments, penetrators, projectiles, shell casings, links, fins), other than the documented presence of UXO or DMM, indicating that UXO or DMM may be present at the MRS.	10	
Suspected (historical evidence)	There is historical evidence indicating that UXO or DMM may be present at the MRS.	5	5
Subsurface, physical constraint	There is physical or historical evidence indicating that UXO or DMM may be present in the subsurface, but there is a physical constraint (e.g., pavement, water depth over 120 feet) preventing direct access to the UXO or DMM.	2	
Small arms (regardless of location)	The presence of small arms ammunition is confirmed or suspected, regardless of other factors such as geological stability [There must be evidence that no other types of munitions (e.g., grenades) were used or are present at the MRS to place an MRS into this category.]	1	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
LOCATION OF MUNITIONS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 25).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Location of Munitions*** classifications in the space below.

The ASR Site Inspection team inspected the MRS No. 17. The team reported no evidence of the court was found and there was no munitions debris found. The 2006 SI field team did not inspect this MRS. Practice grenades have been found in the past by farmers at other practice grenades courts at Camp Adair (2007 SI Report, Section 4.2.4)

Table 4
EHE Module: Ease of Access Data Element Table

Directions: Below are four classifications of barrier types that can surround an MRS and their descriptions. The barrier type is directly related to the ease of public access to any explosive materiel. Annotate the score that corresponds with the ease of access to the MRS.

Note: The term *barrier* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
No barrier	There is no barrier preventing access to any part of the MRS (i.e. all parts of the MRS are accessible).	10	10
Barrier to MRS access is incomplete	There is a barrier preventing access to parts of the MRS, but not the entire MRS.	8	
Barrier to MRS access is complete but not monitored	There is a barrier preventing access to all parts of the MRS, but there is no surveillance (e.g., by a guard) to ensure that the barrier is effectively preventing access to all parts of the MRS.	5	
Barrier to MRS access is complete and monitored	There is a barrier preventing access to all parts of the MRS, and there is active, continual surveillance (e.g., by a guard, video monitoring) to ensure that the barrier is effectively preventing access to all parts of the MRS.	0	
EASE OF ACCESS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**10**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ease of Access*** classification in the space below.

As of August 2006, there is no fencing or signage restricting or limiting access to the area by the general public and the area is currently used for growing crops.

Table 5
EHE Module: Status of Property Data Element Table

Directions: Below are three classifications of the status of a property within the Department of Defense (DoD) and their descriptions. Annotate the score that corresponds with the status of property at the MRS.

Note: N/A

Classification	Description	Possible Score	Score
Non-DoD control	The MRS is at a location that is no longer owned by, leased to, or otherwise possessed or used by DoD. Examples are privately owned land or water bodies; land or water bodies owned or controlled by state, tribal, or local governments; and land or water bodies managed by other federal agencies.	5	5
Scheduled for transfer from DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD, and DoD plans to transfer that land or water body to the control of another entity (e.g., a state, tribal, or local government; a private party; another federal agency) within 3 years from the date the rule is applied.	3	
DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD. With respect to property that is leased or otherwise possessed, DoD must control access to the MRS 24 hours per day, every day of the calendar year.	0	
STATUS OF PROPERTY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Status of Property*** classification in the space below.

Camp Adair was acquired by the Army beginning in 1941. In 1946, the War Department declared Camp Adair surplus and was assigned to the War Assets Administration for disposition under the Surplus Property Act. In 1946, the property was transferred to the Department of Agriculture for sale by the Federal Land Bank. As of 2006, property ownership of this MRS is by private citizens. There is no controlled access to the FUDS.

Table 6
EHE Module: Population Density Data Element Table

Directions: Below are three classifications of population density and their descriptions. Determine the population density per square mile in the vicinity of the MRS and annotate the score that corresponds with the associated population density.

Note: If an MRS is located in more than one county, use the largest population density value among the counties. If the MRS is within or borders a city or town, use the population density for the city or town, rather than that of the county.

Classification	Description	Possible Score	Score
> 500 persons per square mile	There are more than 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	5	
100 - 500 persons per square mile	There are 100 to 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	3	
< 100 persons per square mile	There are fewer than 100 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	1	1
POPULATION DENSITY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**1**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Density*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 7
EHE Module: Population Near Hazard Data Element Table

Directions: Below are six classifications describing the number of inhabited structures near the MRS. The number of inhabited buildings relates to the population near the hazard. Determine the number of inhabited structures within two miles of the MRS boundary and annotate the score that corresponds with the associated population near the known or suspected hazard.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
26 or more inhabited structures	There are 26 or more inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	5	5
16 to 25 inhabited structures	There are 16 to 25 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	4	
11 to 15 inhabited structures	There are 11 to 15 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	3	
6 to 10 inhabited structures	There are 6 to 10 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	2	
1 to 5 inhabited structures	There are 1 to 5 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	1	
0 inhabited structures	There are no inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	0	
POPULATION NEAR HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Near Hazard*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 8

EHE Module: Types of Activities/Structures Data Element Table

Directions: Below are five classifications of activities and/or inhabited structures near the hazard and their descriptions. Review the types of activities that occur and/or structures that are present within two miles of the MRS and annotate the score(s) that correspond with **all** the activities/structure classifications at the MRS.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Residential, educational, commercial, or subsistence	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with any of the following purposes: residential, educational, child care, critical assets (e.g., hospitals, fire and rescue, police stations, dams), hotels, commercial, shopping centers, playgrounds, community gathering areas, religious sites, or sites used for subsistence hunting, fishing, and gathering.	5	5
Parks and recreational areas	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with parks, nature preserves, or other recreational uses.	4	4
Agricultural, forestry	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with agriculture or forestry.	3	3
Industrial or warehousing	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with industrial activities or warehousing.	2	
No known or recurring activities	There are no known or recurring activities occurring up to two miles from the MRS's boundary or within the MRS's boundary.	1	
TYPES OF ACTIVITIES/STRUCTURES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Types of Activities/Structures*** classifications in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 9

EHE Module: Ecological and/or Cultural Resources Data Element Table

Directions: Below are four classifications of ecological and/or cultural resources and their descriptions. Review the types of resources present and annotate the score that corresponds with the ecological and/or cultural resource classifications at the MRS.

Note: The terms *ecological resources* and *cultural resources* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Ecological and cultural resources present	There are both ecological and cultural resources present on the MRS.	5	
Ecological resources present	There are ecological resources present on the MRS.	3	
Cultural resources present	There are cultural resources present on the MRS.	3	
No ecological or cultural resources present	There are no ecological resources or cultural resources present on the MRS.	0	0
ECOLOGICAL AND/OR CULTURAL RESOURCES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**0**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ecological and/or Cultural Resources*** classification in the space below.

The State Historic Preservation Office (SHPO), U.S. Forest Service (USFS), and the Oregon Department of Fish and Wildlife (ODFW) were contacted regarding cultural and natural resources. The SHPO indicated that no potential cultural/archaeological resources were within the currently identified MRS No. 17. The ODFW, Oregon Department of Agriculture, and the U.S. Fish and Wildlife Service were contacted regarding identification of any potentially impacted, threatened, or endangered species at Camp Adair. Two plant species are known to grow in the Camp Adair area. However, the agencies were not concerned with the proposed site activities because of the fact they were minimally invasive (2007 SI Report, Sections 2.4.7, 3.2.1 and 3.2.2). This MRS is currently used for growing crops.

Table 10

Determining the EHE Module Rating

DIRECTIONS:

1. From Tables 01 - 09, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **EHE Module Total** box below.

4. Identify the appropriate range for the **EHE Module Total** at right.

5. Identify the **EHE Module Rating** that corresponds to the range selected and record this rating in the **EHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

	Source	Score	Value
Explosive Hazard Factor Data Elements			
Munitions Type	Table 01	5	11
Source of Hazard	Table 02	6	
Accessibility Factor Data Elements			
Location of Munitions	Table 03	5	20
Ease of Access	Table 04	10	
Status of Property	Table 05	5	
Receptor Factor Data Elements			
Population Density	Table 06	1	11
Population Near Hazard	Table 07	5	
Types of Activities/Structures	Table 08	5	
Ecological and/or Cultural Resources	Table 09	0	
EHE MODULE TOTAL			**42**

EHE Module Total	EHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected Explosive Hazard
EHE MODULE RATING	**F**

Table 11

CHE Module: CWM Configuration Data Element Table

Directions: Below are seven classifications of CWM configuration and their descriptions. Annotate the score(s) that correspond to **all** CWM configurations known or suspected to be present at the MRS.

Note: The terms *CWM/UXO*, *CWM/DMM*, *physical evidence*, and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
CWM, explosive configuration either UXO or damaged DMM	The CWM known or suspected of being present at the MRS is (a) explosively configured CWM that are UXO (i.e. CWM/UXO), or (b) explosively configured CWM that are DMM (i.e. CWM/DMM) that have been damaged.	30	
CWM mixed with UXO	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged, or nonexplosively configured CWM/DMM, or CWM not configured as a munition, that are commingled with conventional munitions that are UXO.	25	
CWM, explosive configuration that are undamaged DMM	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged.	20	
CWM, not explosively configured or CWM, bulk container	The CWM known or suspected of being present at the MRS is (a) nonexplosively configured CWM/DMM, or (b) bulk CWM/DMM (e.g., ton container).	15	
CAIS K941 and CAIS K942	The CWM/DMM known or suspected of being present at the MRS is CAIS K941(toxic gas set M-1) or CAIS K942 (toxic gas set M-2/E11).	12	
CAIS (chemical agent identification sets)	Only CAIS, other than CAIS K941 and K942, are known or suspected of being present at the MRS.	10	
Evidence of no CWM	Following investigation, the physical evidence indicates that CWM are not present at the MRS, or the historical evidence indicates that CWM are not present at the MRS.	0	0
CWM CONFIGURATION	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**0**

DIRECTIONS: Document any MRS-specific data used in selecting the ***CWM Configuration*** classifications in the space below.

As there are no records of munitions other than practice grenades being used at this MRA/MRS.

Table 20

Determining the CHE Module Rating

DIRECTIONS:

1. From Tables 11 - 19, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **CHE Module Total** box below.

	Source	Score	Value
CWM Hazard Factor Data Elements			
CWM Configuration	Table 11	0	0
Sources of CWM	Table 12	0	
Accessibility Factor Data Elements			
Location of CWM	Table 13	0	0
Ease of Access	Table 14	0	
Status of Property	Table 15	0	
Receptor Factor Data Elements			
Population Density	Table 16	0	0
Population Near Hazard	Table 17	0	
Types of Activities/Structures	Table 18	0	
Ecological and/or Cultural Resources	Table 19	0	
		CHE MODULE TOTAL	**0**

4. Identify the appropriate range for the **CHE Module Total** at right.

5. Identify the **CHE Module Rating** that corresponds to the range selected and record this rating in the **CHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

CHE Module Total	CHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected CWM Hazard
CHE MODULE RATING	**No Known or Suspected CWM Hazard**

Table 21

HHE Module: Groundwater Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's groundwater and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the groundwater, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
		Sum the Ratios	

CHF Scale	CHF Value
CHF > 100	**H (High)**
100 > CHF >2	**M (Medium)**
2 > CHF	**L (Low)**

CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the groundwater migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the groundwater is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in groundwater has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the groundwater to a potential point of exposure (possibly due to geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the groundwater receptors at the MRS.

Classification	Description	Value
Identified	There is a threatened water supply well downgradient of the source and the groundwater is a current source of drinking water or source of water for other beneficial uses such as irrigation/agriculture (equivalent to Class I or IIA aquifer).	H
Potential	There is no threatened water supply well downgradient of the source and the groundwater is currently or potentially usable for drinking water, irrigation, or agriculture (equivalent to Class I, IIA, or IIB aquifer).	M
Limited	There is no potentially threatened water supply well downgradient of the source and the groundwater is not considered a potential source of drinking water and is of limited beneficial use (equivalent to Class IIIA or IIIB aquifer, or where perched aquifer exists only).	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Groundwater MC Hazard	**X**

Table 22

HHE Module: Surface Water - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface water, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Human Endpoint) MC Hazard	**X**

Table 23

HHE Module: Sediment - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the site's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for human endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		
CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).		

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	
Place an "X" in the box to the right if there is no known or suspected Sediment (Human Endpoint) MC Hazard		**X**

Table 24

HHE Module: Surface Water - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the surface water, select the box at the bottom of the table.

Note: Use either dissolved or total metals analyses.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
		Sum the Ratios	

CHF Scale	CHF Value	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**
100 > CHF >2	**M (Medium)**	
2 > CHF	**L (Low)**	

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Ecological Endpoint) MC Hazard	**X**

Table 25

HHE Module: Sediment - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Sediment (Ecological Endpoint) MC Hazard	**X**

Table 26

HHE Module: Surface Soil - Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface soil and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface soil, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface soil migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface soil is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface soil has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface soil to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface soil receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface soil to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface soil to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface soil to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Soil MC Hazard	**X**

Table 27

HHE Module: Supplemental Contaminant Hazard Factor Table

Contaminant Hazard Factor (CHF)

Directions: **Only use this table if there are more than five contaminants present at the MRS.** This is a supplemental table designed to hold information about contaminants that do not fit in the previous tables. Indicate the **media** in which these contaminants are present. Then record all **contaminants**, their **maximum concentrations** and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Calculate and record the **ratio** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** for each medium on the appropriate media-specific tables.

Note: For human exposures to groundwater and surface water, use dissolved, rather than total, metals analyses when both are available. Remember not to add ratios from different media.

Media	Contaminant [CAS No.]	Maximum Concentration	Units	Comparison Value	Units	Ratios
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
					SUBTOTAL FOR SURFACE SOIL	**0**
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
					SUBTOTAL FOR SEDIMENT	**0**
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
					SUBTOTAL FOR SURFACE WATER	**0**
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
					SUBTOTAL FOR GROUNDWATER	**0**

Table 28

Determining the HHE Module Rating

DIRECTIONS:

1. Record the letter values (H, M, L) for the **Contaminant Hazard**, **Migration Pathway**, and **Receptor Factors** for the media (from Tables 21 - 26) in the corresponding boxes below.
2. Record the media's three-letter combinations in the **Three-Letter-Combination** boxes below (three-letter combinations are arranged from Hs to Ms to Ls).
3. Using the reference provided below, determine each medium's rating (A - G) and record the letter in the corresponding **Media Rating** box below.

Medium (Source)	Contaminant Hazard Factor Value	Migratory Pathway Factor Value	Receptor Factor Value	Three-Letter Combination (Hs-Ms-Ls)	Media Rating (A - G)
Table 21 - Groundwater					
Table 22 - Surface Water (Human Endpoint)					
Table 23 - Sediment (Human Endpoint)					
Table 24 - Surface Water (Ecological Endpoint)					
Table 25 - Sediment (Ecological Endpoint)					
Table 26 - Surface Soil					
			HHE MODULE RATING		**No Known or Suspected MC Hazard**

DIRECTIONS (Continued):

4. Select the single highest **Media Rating** (A is the highest; G is the lowest) and enter the letter in the **HHE Module Rating** box below.

HHE Ratings (for reference only)	
HHH	A
HHM	B
HHL	C
HMM	
HML	D
MMM	
HLL	E
MML	
MLL	F
LLL	G

NOTE: An alternative module rating may be assigned when a module letter rating is used when more information is needed to score one or more media, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

Alternative Module Ratings	
	Evaluation Pending
	No Longer Required
	No Known or Suspected MC Hazard

Table 29

MRS Priority

DIRECTIONS: In the chart below, enter the letter **rating** for each module recorded in Table 10 (EHE), Table 20 (CHE), and Table 28 (HHE). Enter the corresponding numerical **priority** for each module. If information to determine the module rating is not available, choose the appropriate alternative module rating. The MRS priority is the single highest priority; record this number in the **MRS or Alternative Priority** box at the bottom of the table.

NOTE: An MRS assigned Priority 1 has the highest relative priority; an MRS assigned Priority 8 has the lowest relative priority. Only an MRS with CWM known or suspected to be present can be assigned Priority 1; an MRS that has CWM known or suspected to be present cannot be assigned Priority 8.

EHE Rating	Priority	CHE Rating	Priority	HHE Rating	Priority
		A	1		
A	2	B	2	A	2
B	3	C	3	B	3
C	4	D	4	C	4
D	5	E	5	D	5
E	6	F	6	E	6
F	7	G	7	F	7
G	8			G	8
Evaluation Pending		Evaluation Pending		Evaluation Pending	
No Longer Required		No Longer Required		No Longer Required	
No Known or Suspected Explosive Hazard		No Known or Suspected CWM Hazard		No Known or Suspected MC Hazard	

Reference Table 10:		Reference Table 20:		Reference Table 28:	
EHE Module Rating	Priority	CHE Module Rating	Priority	HHE Module Rating	Priority
F	7	No Known or Suspected CWM Hazard	No Known or Suspected CWM Hazard	No Known or Suspected MC Hazard	No Known or Suspected MC Hazard

MRS or Alternative Priority	7

Table A

MRS Background Information

DIRECTIONS: Record the background information below for the MRS to be evaluated. Much of this information is available from DoD databases, such as RMIS. If the MRS is located on a FUDS property, the suitable FUDS property information should be substituted. In the MRS summary, briefly describe the UXO, DMM, or MC that are known or suspected to be present, the exposure setting (the MRS's physical environment), any other incidental non-munitions related contaminants found at the MRS (e.g., benzene, trichloroethylene), and any potentially exposed human and ecological receptors. Include a map of the MRS, if one is available.

Munitions Response Site (MRS) Name:	**MRS No. 18, Practice Grenade Courts No. 125**
Component:	US Army
Installation/Property Name:	**Camp Adair/Adair Air Force Station**
Location (City, County, State):	Benton County, Oregon
UTM Coordinates (NAD83):	N 4952730.73, E 483116.47
Site Name (RMIS ID):	Practice Grenade Court No. 125 (F10OR002903R08)
Project Name (Project No.):	Formerly Used Defense Sites, Military Munitions Response Program Site Inspections at Multiple Sites (116188)
Date Information Entered/Updated:	31-May-2007
Point of Contact (Name/Phone):	William Graney/206-764-3494

Project Phase ("X" only one):									
		PA	**X**	**SI**		**RI**		**FS**		**RD**
		RA-C		**RIP**		**RA-O**		**RC**		**LTM**

Media Evaluated ("X" all that apply):				
		Groundwater (human receptor)		**Sediment (human receptor)**
		Surface soil (human receptor)		**Surface water (ecological receptor)**
		Sediment (ecological receptor)		**Surface water (human receptor)**

MRS Summary

MRS Description: Describe the munitions-related activities that occurred at the installation, the dates of operation, and the UXO, DMM (by type of munition, if known) or munitions constituents (by type, if known) known or suspected to be present):

MRS No. 18 consists of Practice Grenade Court No. 125. This court was used by Camp Adair between 1942 and 1945. The MRS was used for training in practice hand grenades. Grenades used were M21 Practice Hand Grenade and Mk 1A1 Practice Hand Grenade. The landowner showed the SI field team 7 inert practice hand grenades that had been recovered from the court many years ago by the landowner's father (2007 SI Report, Section 4.2.4). The range area is currently used for growing agricultural crops.

Description of Pathways for Human and Ecological Receptors:

The potential pathways for MRS No. 18 are: terrestrial for humans (agricultural workers) and ecological (ingestion and uptake by wildlife and plants).

Description of Receptors (Human and Ecological):

Receptors in this MRS would be agricultural workers and wildlife.

Table 1
EHE Module: Munitions Type Data Element Table

Directions: Below are eleven classifications of munitions and their descriptions. Annotate the score(s) that correspond with **all** munitions types known or suspected to be present at the MRS.

Note: The terms *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Sensitive	All UXO that are considered likely to function upon any interaction with exposed persons [e.g., submunitions, 40mm high-explosive (HE) grenades, white phosphorous (WP) munitions, high-explosive antitank (HEAT) munitions, and practice munitions with sensitive fuzes, but excluding all other practice munitions].	30	
	All hand grenades containing energetic filler.		
	Bulk primary explosives, or mixtures of these with environmental media, such that the mixture poses an explosive hazard.		
High explosive (used or damaged)	All UXO containing a high-explosive filler (e.g., RDX, Composition B), that are not considered "sensitive."	25	
	All DMM containing a high-explosive filler that have been damaged by burning or detonation, or deteriorated to the point of instability.		
Pyrotechnic (used or damaged)	All UXO containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades).	20	
	All DMM containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades) that have been damaged by burning or detonation, or deteriorated to the point of instability.		
High explosive (unused)	All DMM containing a high-explosive filler that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	15	
Propellant	All UXO containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor).	15	
	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor) that are damaged by burning or detonation, or deteriorated to the point of instability.		
Bulk secondary high explosives, pyrotechnics, or propellant	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor), that are deteriorated.	10	
	Bulk secondary high explosives, pyrotechnic compositions, or propellant (not contained in a munition), or mixtures of these with environmental media such that the mixture poses an explosive hazard.		
Pyrotechnic (not used or damaged)	All DMM containing a pyrotechnic filler (i.e. red phosphorous), other than white phosphorous filler, that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	10	
Practice	All UXO that are practice munitions that are not associated with a sensitive fuze.	5	5
	All DMM that are practice munitions that are not associated with a sensitive fuze and that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.		
Riot control	All UXO or DMM containing a riot control agent filler (e.g., tear gas).	3	
Small arms	All used munitions or DMM that are categorized as small arms ammunition [Physical evidence or historical evidence that no other types of munitions (e.g., grenades, subcaliber training rockets, demolition charges) were used or are present on the MRS is required for selection of this category.].	2	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
MUNITIONS TYPE	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Munitions Type*** classifications in the space below.

The ASR Site Inspection team inspected the MRS No. 18. The team reported no evidence of the court was found and there was no munitions debris found. The 2006 SI field team did not inspect this MRS. The landowner showed the SI field team 7 inert practice hand grenades that had been recovered from the court many years ago by the landowner's father (2007 SI Report, Section 4.2.4).

Table 2

EHE Module: Source of Hazard Data Element Table

Directions: Below are eleven classifications describing sources of explosive hazards. Annotate the score(s) that correspond with **all** sources of explosive hazards known or suspected to be present at the MRS.

Note: The terms *former range* , *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Former range	The MRS is a former military range where munitions (including practice munitions with sensitive fuzes) have been used. Such areas include: impact or target areas, associated buffer and safety zones, firing points, and live-fire maneuver areas.	10	
Former munitions treatment (i.e. OB/OD) unit	The MRS is a location where UXO or DMM (e.g., munitions, bulk explosives, bulk pyrotechnic, or bulk propellants) were burned or detonated for the purpose of treatment prior to disposal.	8	
Former practice munitions range	The MRS is a former military range on which only practice munitions without sensitive fuzes were used.	6	6
Former maneuver area	The MRS is a former maneuver area where no munitions other than flares, simulators, smokes, and blanks were used. There must be evidence that no other munitions were used at the location to place an MRS into this category.	5	
Former burial pit or other disposal area	The MRS is a location where DMM were buried or disposed of (e.g., disposed of into a water body) without prior thermal treatment.	5	
Former industrial operating facilities	The MRS is a location that is a former munitions maintenance, manufacturing, or demilitarization facility.	4	
Former firing points	The MRS is a firing point, where the firing point is delineated as an MRS separate from the rest of a former military range.	4	
Former missile or air defense artillery emplacements	The MRS is a former missile defense or air defense artillery (ADA) emplacement not associated with a military range.	2	
Former storage or transfer points	The MRS is a location where munitions were stored or handled for transfer between different modes of transportation (e.g., rail to truck, truck to weapon system).	2	
Former small arms range	The MRS is a former military range where only small arms ammunition was used [There must be evidence that no other types of munitions (e.g., grenades) were used or are present to place an MRS iinto this category.].	1	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that no UXO or DMM are present, or there is historical evidence indicating that no UXO or DMM are present.	0	
SOURCE OF HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**6**

DIRECTIONS: Document any MRS-specific data used in selecting the **Source of Hazard** classifications in the space below.

MRS No. 18 consists of Practice Grenade Court No. 125. This court was used by Camp Adair between 1942 and 1945. The MRS was used for training in practice hand grenades. Grenades used were M21 Practice Hand Grenade and Mk 1A1 Practice Hand Grenade.

Table 3
EHE Module: Location of Munitions Data Element Table

Directions: Below are eight classifications of munitions locations and their descriptions. Annotate the score(s) that correspond with **all** locations where munitions are located or suspected of being found at the MRS.

Note: The terms *surface* , *subsurface* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Confirmed surface	Physical evidence indicates that there are UXO or DMM on the surface of the MRS. Historical evidence (e.g., a confirmed incident report or accident report) indicates there are UXO or DMM on the surface of the MRS.	25	
Confirmed subsurface, active	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM.	20	
Confirmed subsurface, stable	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed.	15	
Suspected (physical evidence)	There is physical evidence (e.g., munitions debris, such fragments, penetrators, projectiles, shell casings, links, fins), other than the documented presence of UXO or DMM, indicating that UXO or DMM may be present at the MRS.	10	
Suspected (historical evidence)	There is historical evidence indicating that UXO or DMM may be present at the MRS.	5	5
Subsurface, physical constraint	There is physical or historical evidence indicating that UXO or DMM may be present in the subsurface, but there is a physical constraint (e.g., pavement, water depth over 120 feet) preventing direct access to the UXO or DMM.	2	
Small arms (regardless of location)	The presence of small arms ammunition is confirmed or suspected, regardless of other factors such as geological stability [There must be evidence that no other types of munitions (e.g., grenades) were used or are present at the MRS to place an MRS into this category.]	1	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
LOCATION OF MUNITIONS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 25).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Location of Munitions*** classifications in the space below.

The ASR Site Inspection team inspected the MRS No. 18. The team reported no evidence of the court was found and there was no munitions debris found. The 2006 SI field team did not inspect this MRS. The landowner showed the SI field team 7 inert practice hand grenades that had been recovered from the court many years ago by the landowner's father (2007 SI Report, Section 4.2.4).

Table 4
EHE Module: Ease of Access Data Element Table

Directions: Below are four classifications of barrier types that can surround an MRS and their descriptions. The barrier type is directly related to the ease of public access to any explosive materiel. Annotate the score that corresponds with the ease of access to the MRS.

Note: The term *barrier* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
No barrier	There is no barrier preventing access to any part of the MRS (i.e. all parts of the MRS are accessible).	10	10
Barrier to MRS access is incomplete	There is a barrier preventing access to parts of the MRS, but not the entire MRS.	8	
Barrier to MRS access is complete but not monitored	There is a barrier preventing access to all parts of the MRS, but there is no surveillance (e.g., by a guard) to ensure that the barrier is effectively preventing access to all parts of the MRS.	5	
Barrier to MRS access is complete and monitored	There is a barrier preventing access to all parts of the MRS, and there is active, continual surveillance (e.g., by a guard, video monitoring) to ensure that the barrier is effectively preventing access to all parts of the MRS.	0	
EASE OF ACCESS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**10**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ease of Access*** classification in the space below.

As of August 2006, there is no fencing or signage restricting or limiting access to the area by the general public and the area is currently used for growing crops.

Table 5
EHE Module: Status of Property Data Element Table

Directions: Below are three classifications of the status of a property within the Department of Defense (DoD) and their descriptions. Annotate the score that corresponds with the status of property at the MRS.

Note: N/A

Classification	Description	Possible Score	Score
Non-DoD control	The MRS is at a location that is no longer owned by, leased to, or otherwise possessed or used by DoD. Examples are privately owned land or water bodies; land or water bodies owned or controlled by state, tribal, or local governments; and land or water bodies managed by other federal agencies.	5	5
Scheduled for transfer from DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD, and DoD plans to transfer that land or water body to the control of another entity (e.g., a state, tribal, or local government; a private party; another federal agency) within 3 years from the date the rule is applied.	3	
DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD. With respect to property that is leased or otherwise possessed, DoD must control access to the MRS 24 hours per day, every day of the calendar year.	0	
STATUS OF PROPERTY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Status of Property*** classification in the space below.

Camp Adair was acquired by the Army beginning in 1941. In 1946, the War Department declared Camp Adair surplus and was assigned to the War Assets Administration for disposition under the Surplus Property Act. In 1946, the property was transferred to the Department of Agriculture for sale by the Federal Land Bank. As of 2006, property ownership of this MRS is by private citizens. There is no controlled access to the FUDS.

Table 6
EHE Module: Population Density Data Element Table

Directions: Below are three classifications of population density and their descriptions. Determine the population density per square mile in the vicinity of the MRS and annotate the score that corresponds with the associated population density.

Note: If an MRS is located in more than one county, use the largest population density value among the counties. If the MRS is within or borders a city or town, use the population density for the city or town, rather than that of the county.

Classification	Description	Possible Score	Score
> 500 persons per square mile	There are more than 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	5	
100 - 500 persons per square mile	There are 100 to 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	3	
< 100 persons per square mile	There are fewer than 100 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	1	1
POPULATION DENSITY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**1**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Density*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 7
EHE Module: Population Near Hazard Data Element Table

Directions: Below are six classifications describing the number of inhabited structures near the MRS. The number of inhabited buildings relates to the population near the hazard. Determine the number of inhabited structures within two miles of the MRS boundary and annotate the score that corresponds with the associated population near the known or suspected hazard.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
26 or more inhabited structures	There are 26 or more inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	5	5
16 to 25 inhabited structures	There are 16 to 25 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	4	
11 to 15 inhabited structures	There are 11 to 15 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	3	
6 to 10 inhabited structures	There are 6 to 10 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	2	
1 to 5 inhabited structures	There are 1 to 5 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	1	
0 inhabited structures	There are no inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	0	
POPULATION NEAR HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Near Hazard*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 8

EHE Module: Types of Activities/Structures Data Element Table

Directions: Below are five classifications of activities and/or inhabited structures near the hazard and their descriptions. Review the types of activities that occur and/or structures that are present within two miles of the MRS and annotate the score(s) that correspond with **all** the activities/structure classifications at the MRS.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Residential, educational, commercial, or subsistence	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with any of the following purposes: residential, educational, child care, critical assets (e.g., hospitals, fire and rescue, police stations, dams), hotels, commercial, shopping centers, playgrounds, community gathering areas, religious sites, or sites used for subsistence hunting, fishing, and gathering.	5	5
Parks and recreational areas	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with parks, nature preserves, or other recreational uses.	4	4
Agricultural, forestry	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with agriculture or forestry.	3	3
Industrial or warehousing	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with industrial activities or warehousing.	2	
No known or recurring activities	There are no known or recurring activities occurring up to two miles from the MRS's boundary or within the MRS's boundary.	1	
TYPES OF ACTIVITIES/STRUCTURES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Types of Activities/Structures*** classifications in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 9

EHE Module: Ecological and/or Cultural Resources Data Element Table

Directions: Below are four classifications of ecological and/or cultural resources and their descriptions. Review the types of resources present and annotate the score that corresponds with the ecological and/or cultural resource classifications at the MRS.

Note: The terms *ecological resources* and *cultural resources* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Ecological and cultural resources present	There are both ecological and cultural resources present on the MRS.	5	
Ecological resources present	There are ecological resources present on the MRS.	3	
Cultural resources present	There are cultural resources present on the MRS.	3	
No ecological or cultural resources present	There are no ecological resources or cultural resources present on the MRS.	0	0
ECOLOGICAL AND/OR CULTURAL RESOURCES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**0**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ecological and/or Cultural Resources*** classification in the space below.

The State Historic Preservation Office (SHPO), U.S. Forest Service (USFS), and the Oregon Department of Fish and Wildlife (ODFW) were contacted regarding cultural and natural resources. The SHPO indicated that no potential cultural/archaeological resources were within the currently identified MRS No. 18. The ODFW, Oregon Department of Agriculture, and the U.S. Fish and Wildlife Service were contacted regarding identification of any potentially impacted, threatened, or endangered species at Camp Adair. Two plant species are known to grow in the Camp Adair area. However, the agencies were not concerned with the proposed site activities because of the fact they were minimally invasive (2007 SI Report, Sections 2.4.7, 3.2.1 and 3.2.2). This MRS is currently used for growing crops.

Table 10

Determining the EHE Module Rating

DIRECTIONS:

1. From Tables 01 - 09, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **EHE Module Total** box below.

4. Identify the appropriate range for the **EHE Module Total** at right.

5. Identify the **EHE Module Rating** that corresponds to the range selected and record this rating in the **EHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

	Source	Score	Value
Explosive Hazard Factor Data Elements			
Munitions Type	Table 01	5	11
Source of Hazard	Table 02	6	
Accessibility Factor Data Elements			
Location of Munitions	Table 03	5	20
Ease of Access	Table 04	10	
Status of Property	Table 05	5	
Receptor Factor Data Elements			
Population Density	Table 06	1	11
Population Near Hazard	Table 07	5	
Types of Activities/Structures	Table 08	5	
Ecological and/or Cultural Resources	Table 09	0	
EHE MODULE TOTAL			**42**

EHE Module Total	EHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected Explosive Hazard
EHE MODULE RATING	**F**

Table 11

CHE Module: CWM Configuration Data Element Table

Directions: Below are seven classifications of CWM configuration and their descriptions. Annotate the score(s) that correspond to **all** CWM configurations known or suspected to be present at the MRS.

Note: The terms *CWM/UXO*, *CWM/DMM*, *physical evidence*, and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
CWM, explosive configuration either UXO or damaged DMM	The CWM known or suspected of being present at the MRS is (a) explosively configured CWM that are UXO (i.e. CWM/UXO), or (b) explosively configured CWM that are DMM (i.e. CWM/DMM) that have been damaged.	30	
CWM mixed with UXO	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged, or nonexplosively configured CWM/DMM, or CWM not configured as a munition, that are commingled with conventional munitions that are UXO.	25	
CWM, explosive configuration that are undamaged DMM	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged.	20	
CWM, not explosively configured or CWM, bulk container	The CWM known or suspected of being present at the MRS is (a) nonexplosively configured CWM/DMM, or (b) bulk CWM/DMM (e.g., ton container).	15	
CAIS K941 and CAIS K942	The CWM/DMM known or suspected of being present at the MRS is CAIS K941(toxic gas set M-1) or CAIS K942 (toxic gas set M-2/E11).	12	
CAIS (chemical agent identification sets)	Only CAIS, other than CAIS K941 and K942, are known or suspected of being present at the MRS.	10	
Evidence of no CWM	Following investigation, the physical evidence indicates that CWM are not present at the MRS, or the historical evidence indicates that CWM are not present at the MRS.	0	0
CWM CONFIGURATION	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**0**

DIRECTIONS: Document any MRS-specific data used in selecting the ***CWM Configuration*** classifications in the space below.

As there are no records of munitions other than practice grenades being used at this MRA/MRS.

Table 20

Determining the CHE Module Rating

DIRECTIONS:

1. From Tables 11 - 19, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **CHE Module Total** box below.

	Source	Score	Value
CWM Hazard Factor Data Elements			
CWM Configuration	Table 11	0	0
Sources of CWM	Table 12	0	
Accessibility Factor Data Elements			
Location of CWM	Table 13	0	0
Ease of Access	Table 14	0	
Status of Property	Table 15	0	
Receptor Factor Data Elements			
Population Density	Table 16	0	0
Population Near Hazard	Table 17	0	
Types of Activities/Structures	Table 18	0	
Ecological and/or Cultural Resources	Table 19	0	
		CHE MODULE TOTAL	**0**

4. Identify the appropriate range for the **CHE Module Total** at right.

5. Identify the **CHE Module Rating** that corresponds to the range selected and record this rating in the **CHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

CHE Module Total	CHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected CWM Hazard
CHE MODULE RATING	**No Known or Suspected CWM Hazard**

Table 21

HHE Module: Groundwater Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's groundwater and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the groundwater, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
		Sum the Ratios	

CHF Scale	CHF Value	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**
100 > CHF >2	**M (Medium)**	
2 > CHF	**L (Low)**	

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the groundwater migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the groundwater is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in groundwater has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the groundwater to a potential point of exposure (possibly due to geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the groundwater receptors at the MRS.

Classification	Description	Value
Identified	There is a threatened water supply well downgradient of the source and the groundwater is a current source of drinking water or source of water for other beneficial uses such as irrigation/agriculture (equivalent to Class I or IIA aquifer).	H
Potential	There is no threatened water supply well downgradient of the source and the groundwater is currently or potentially usable for drinking water, irrigation, or agriculture (equivalent to Class I, IIA, or IIB aquifer).	M
Limited	There is no potentially threatened water supply well downgradient of the source and the groundwater is not considered a potential source of drinking water and is of limited beneficial use (equivalent to Class IIIA or IIIB aquifer, or where perched aquifer exists only).	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	
Place an "X" in the box to the right if there is no known or suspected Groundwater MC Hazard		**X**

Table 22

HHE Module: Surface Water - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface water, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Human Endpoint) MC Hazard	**X**

Table 23

HHE Module: Sediment - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the site's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for human endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		
CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).		

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	
Place an "X" in the box to the right if there is no known or suspected Sediment (Human Endpoint) MC Hazard		**X**

Table 24

HHE Module: Surface Water - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the surface water, select the box at the bottom of the table.

Note: Use either dissolved or total metals analyses.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		
CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).		

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Ecological Endpoint) MC Hazard	**X**

Table 25

HHE Module: Sediment - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Sediment (Ecological Endpoint) MC Hazard	**X**

Table 26

HHE Module: Surface Soil - Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface soil and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface soil, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface soil migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface soil is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface soil has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface soil to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface soil receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface soil to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface soil to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface soil to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Soil MC Hazard	**X**

Table 27

HHE Module: Supplemental Contaminant Hazard Factor Table

Contaminant Hazard Factor (CHF)

Directions: **Only use this table if there are more than five contaminants present at the MRS.** This is a supplemental table designed to hold information about contaminants that do not fit in the previous tables. Indicate the **media** in which these contaminants are present. Then record all **contaminants**, their **maximum concentrations** and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Calculate and record the **ratio** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** for each medium on the appropriate media-specific tables.

Note: For human exposures to groundwater and surface water, use dissolved, rather than total, metals analyses when both are available. Remember not to add ratios from different media.

Media	Contaminant [CAS No.]	Maximum Concentration	Units	Comparison Value	Units	Ratios
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
					SUBTOTAL FOR SURFACE SOIL	**0**
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
					SUBTOTAL FOR SEDIMENT	**0**
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
					SUBTOTAL FOR SURFACE WATER	**0**
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
					SUBTOTAL FOR GROUNDWATER	**0**

Table 28

Determining the HHE Module Rating

DIRECTIONS:

1. Record the letter values (H, M, L) for the **Contaminant Hazard**, **Migration Pathway**, and **Receptor Factors** for the media (from Tables 21 - 26) in the corresponding boxes below.
2. Record the media's three-letter combinations in the **Three-Letter-Combination** boxes below (three-letter combinations are arranged from Hs to Ms to Ls).
3. Using the reference provided below, determine each medium's rating (A - G) and record the letter in the corresponding **Media Rating** box below.

Medium (Source)	Contaminant Hazard Factor Value	Migratory Pathway Factor Value	Receptor Factor Value	Three-Letter Combination (Hs-Ms-Ls)	Media Rating (A - G)
Table 21 - Groundwater					
Table 22 - Surface Water (Human Endpoint)					
Table 23 - Sediment (Human Endpoint)					
Table 24 - Surface Water (Ecological Endpoint)					
Table 25 - Sediment (Ecological Endpoint)					
Table 26 - Surface Soil					
			HHE MODULE RATING		**No Known or Suspected MC Hazard**

DIRECTIONS (Continued):

4. Select the single highest **Media Rating** (A is the highest; G is the lowest) and enter the letter in the **HHE Module Rating** box below.

HHE Ratings (for reference only)	
HHH	A
HHM	B
HHL	C
HMM	
HML	D
MMM	
HLL	E
MML	
MLL	F
LLL	G

NOTE: An alternative module rating may be assigned when a module letter rating is used when more information is needed to score one or more media, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

Alternative Module Ratings	
	Evaluation Pending
	No Longer Required
	No Known or Suspected MC Hazard

Table 29

MRS Priority

DIRECTIONS: In the chart below, enter the letter **rating** for each module recorded in Table 10 (EHE), Table 20 (CHE), and Table 28 (HHE). Enter the corresponding numerical **priority** for each module. If information to determine the module rating is not available, choose the appropriate alternative module rating. The MRS priority is the single highest priority; record this number in the **MRS or Alternative Priority** box at the bottom of the table.

NOTE: An MRS assigned Priority 1 has the highest relative priority; an MRS assigned Priority 8 has the lowest relative priority. Only an MRS with CWM known or suspected to be present can be assigned Priority 1; an MRS that has CWM known or suspected to be present cannot be assigned Priority 8.

EHE Rating	Priority	CHE Rating	Priority	HHE Rating	Priority
		A	1		
A	2	B	2	A	2
B	3	C	3	B	3
C	4	D	4	C	4
D	5	E	5	D	5
E	6	F	6	E	6
F	7	G	7	F	7
G	8			G	8
Evaluation Pending		Evaluation Pending		Evaluation Pending	
No Longer Required		No Longer Required		No Longer Required	
No Known or Suspected Explosive Hazard		No Known or Suspected CWM Hazard		No Known or Suspected MC Hazard	

Reference Table 10:		Reference Table 20:		Reference Table 28:	
EHE Module Rating	Priority	CHE Module Rating	Priority	HHE Module Rating	Priority
F	7	No Known or Suspected CWM Hazard	No Known or Suspected CWM Hazard	No Known or Suspected MC Hazard	No Known or Suspected MC Hazard

MRS or Alternative Priority	7

Table A

MRS Background Information

DIRECTIONS: Record the background information below for the MRS to be evaluated. Much of this information is available from DoD databases, such as RMIS. If the MRS is located on a FUDS property, the suitable FUDS property information should be substituted. In the MRS summary, briefly describe the UXO, DMM, or MC that are known or suspected to be present, the exposure setting (the MRS's physical environment), any other incidental non-munitions related contaminants found at the MRS (e.g., benzene, trichloroethylene), and any potentially exposed human and ecological receptors. Include a map of the MRS, if one is available.

Munitions Response Site (MRS) Name:	**MRS No. 19, Practice Grenade Courts No. 126**
Component:	US Army
Installation/Property Name:	**Camp Adair/Adair Air Force Station**
Location (City, County, State):	Benton County, Oregon
UTM Coordinates (NAD83):	N 4952733.24, E 483340.85
Site Name (RMIS ID):	Practice Grenade Court No. 126 (F10OR002903R09)
Project Name (Project No.):	Formerly Used Defense Sites, Military Munitions Response Program Site Inspections at Multiple Sites (116188)
Date Information Entered/Updated:	31-May-2007
Point of Contact (Name/Phone):	William Graney/206-764-3494

Project Phase ("X" only one):									
		PA	**X**	**SI**		**RI**		**FS**		**RD**
		RA-C		**RIP**		**RA-O**		**RC**		**LTM**

Media Evaluated ("X" all that apply):				
		Groundwater (human receptor)		**Sediment (human receptor)**
		Surface soil (human receptor)		**Surface water (ecological receptor)**
		Sediment (ecological receptor)		**Surface water (human receptor)**

MRS Summary

MRS Description: Describe the munitions-related activities that occurred at the installation, the dates of operation, and the UXO, DMM (by type of munition, if known) or munitions constituents (by type, if known) known or suspected to be present):

MRS No. 19 consists of Practice Grenade Court No. 126. This court was used by Camp Adair between 1942 and 1945. The MRS was used for training in practice hand grenades. Grenades used were M21 Practice Hand Grenade and Mk 1A1 Practice Hand Grenade. The landowner showed the SI field team 7 inert practice hand grenades that had been recovered from the court many years ago by the landowner's father (2007 SI Report, Section 4.2.4). The range area is currently used for growing agricultural crops.

Description of Pathways for Human and Ecological Receptors:

The potential pathways for MRS No. 19 are: terrestrial for humans (agricultural workers) and ecological (ingestion and uptake by wildlife and plants).

Description of Receptors (Human and Ecological):

Receptors in the area of this MRS would be agricultural workers and wildlife.

Table 1
EHE Module: Munitions Type Data Element Table

Directions: Below are eleven classifications of munitions and their descriptions. Annotate the score(s) that correspond with **all** munitions types known or suspected to be present at the MRS.

Note: The terms *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Sensitive	All UXO that are considered likely to function upon any interaction with exposed persons [e.g., submunitions, 40mm high-explosive (HE) grenades, white phosphorous (WP) munitions, high-explosive antitank (HEAT) munitions, and practice munitions with sensitive fuzes, but excluding all other practice munitions].	30	
	All hand grenades containing energetic filler.		
	Bulk primary explosives, or mixtures of these with environmental media, such that the mixture poses an explosive hazard.		
High explosive (used or damaged)	All UXO containing a high-explosive filler (e.g., RDX, Composition B), that are not considered "sensitive."	25	
	All DMM containing a high-explosive filler that have been damaged by burning or detonation, or deteriorated to the point of instability.		
Pyrotechnic (used or damaged)	All UXO containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades).	20	
	All DMM containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades) that have been damaged by burning or detonation, or deteriorated to the point of instability.		
High explosive (unused)	All DMM containing a high-explosive filler that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	15	
Propellant	All UXO containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor).	15	
	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor) that are damaged by burning or detonation, or deteriorated to the point of instability.		
Bulk secondary high explosives, pyrotechnics, or propellant	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor), that are deteriorated.	10	
	Bulk secondary high explosives, pyrotechnic compositions, or propellant (not contained in a munition), or mixtures of these with environmental media such that the mixture poses an explosive hazard.		
Pyrotechnic (not used or damaged)	All DMM containing a pyrotechnic filler (i.e. red phosphorous), other than white phosphorous filler, that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	10	
Practice	All UXO that are practice munitions that are not associated with a sensitive fuze.	5	5
	All DMM that are practice munitions that are not associated with a sensitive fuze and that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.		
Riot control	All UXO or DMM containing a riot control agent filler (e.g., tear gas).	3	
Small arms	All used munitions or DMM that are categorized as small arms ammunition [Physical evidence or historical evidence that no other types of munitions (e.g., grenades, subcaliber training rockets, demolition charges) were used or are present on the MRS is required for selection of this category.].	2	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
MUNITIONS TYPE	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Munitions Type*** classifications in the space below.

The ASR Site Inspection team inspected the MRS No. 19. The team reported no evidence of the court was found and there was no munitions debris found. The 2006 SI field team did not inspect this MRS. The landowner showed the SI field team 7 inert practice hand grenades that had been recovered from the court many years ago by the landowner's father (2007 SI Report, Section 4.2.4).

Table 2

EHE Module: Source of Hazard Data Element Table

Directions: Below are eleven classifications describing sources of explosive hazards. Annotate the score(s) that correspond with **all** sources of explosive hazards known or suspected to be present at the MRS.

Note: The terms *former range* , *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Former range	The MRS is a former military range where munitions (including practice munitions with sensitive fuzes) have been used. Such areas include: impact or target areas, associated buffer and safety zones, firing points, and live-fire maneuver areas.	10	
Former munitions treatment (i.e. OB/OD) unit	The MRS is a location where UXO or DMM (e.g., munitions, bulk explosives, bulk pyrotechnic, or bulk propellants) were burned or detonated for the purpose of treatment prior to disposal.	8	
Former practice munitions range	The MRS is a former military range on which only practice munitions without sensitive fuzes were used.	6	6
Former maneuver area	The MRS is a former maneuver area where no munitions other than flares, simulators, smokes, and blanks were used. There must be evidence that no other munitions were used at the location to place an MRS into this category.	5	
Former burial pit or other disposal area	The MRS is a location where DMM were buried or disposed of (e.g., disposed of into a water body) without prior thermal treatment.	5	
Former industrial operating facilities	The MRS is a location that is a former munitions maintenance, manufacturing, or demilitarization facility.	4	
Former firing points	The MRS is a firing point, where the firing point is delineated as an MRS separate from the rest of a former military range.	4	
Former missile or air defense artillery emplacements	The MRS is a former missile defense or air defense artillery (ADA) emplacement not associated with a military range.	2	
Former storage or transfer points	The MRS is a location where munitions were stored or handled for transfer between different modes of transportation (e.g., rail to truck, truck to weapon system).	2	
Former small arms range	The MRS is a former military range where only small arms ammunition was used [There must be evidence that no other types of munitions (e.g., grenades) were used or are present to place an MRS iinto this category.].	1	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that no UXO or DMM are present, or there is historical evidence indicating that no UXO or DMM are present.	0	
SOURCE OF HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**6**

DIRECTIONS: Document any MRS-specific data used in selecting the **Source of Hazard** classifications in the space below.

MRS No. 19 consists of Practice Grenade Court No. 126. This court was used by Camp Adair between 1942 and 1945. The MRS was used for training in practice hand grenades. Grenades used were M21 Practice Hand Grenade and Mk 1A1 Practice Hand Grenade.

Table 3
EHE Module: Location of Munitions Data Element Table

Directions: Below are eight classifications of munitions locations and their descriptions. Annotate the score(s) that correspond with **all** locations where munitions are located or suspected of being found at the MRS.

Note: The terms *surface* , *subsurface* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Confirmed surface	Physical evidence indicates that there are UXO or DMM on the surface of the MRS. Historical evidence (e.g., a confirmed incident report or accident report) indicates there are UXO or DMM on the surface of the MRS.	25	
Confirmed subsurface, active	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM.	20	
Confirmed subsurface, stable	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed.	15	
Suspected (physical evidence)	There is physical evidence (e.g., munitions debris, such fragments, penetrators, projectiles, shell casings, links, fins), other than the documented presence of UXO or DMM, indicating that UXO or DMM may be present at the MRS.	10	
Suspected (historical evidence)	There is historical evidence indicating that UXO or DMM may be present at the MRS.	5	5
Subsurface, physical constraint	There is physical or historical evidence indicating that UXO or DMM may be present in the subsurface, but there is a physical constraint (e.g., pavement, water depth over 120 feet) preventing direct access to the UXO or DMM.	2	
Small arms (regardless of location)	The presence of small arms ammunition is confirmed or suspected, regardless of other factors such as geological stability [There must be evidence that no other types of munitions (e.g., grenades) were used or are present at the MRS to place an MRS into this category.]	1	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
LOCATION OF MUNITIONS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 25).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Location of Munitions*** classifications in the space below.

The ASR Site Inspection team inspected the MRS No. 19. The team reported no evidence of the court was found and there was no munitions debris found. The 2006 SI field team did not inspect this MRS. The landowner showed the SI field team 7 inert practice hand grenades that had been recovered from the court many years ago by the landowner's father (2007 SI Report, Section 4.2.4).

Table 4
EHE Module: Ease of Access Data Element Table

Directions: Below are four classifications of barrier types that can surround an MRS and their descriptions. The barrier type is directly related to the ease of public access to any explosive materiel. Annotate the score that corresponds with the ease of access to the MRS.

Note: The term *barrier* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
No barrier	There is no barrier preventing access to any part of the MRS (i.e. all parts of the MRS are accessible).	10	10
Barrier to MRS access is incomplete	There is a barrier preventing access to parts of the MRS, but not the entire MRS.	8	
Barrier to MRS access is complete but not monitored	There is a barrier preventing access to all parts of the MRS, but there is no surveillance (e.g., by a guard) to ensure that the barrier is effectively preventing access to all parts of the MRS.	5	
Barrier to MRS access is complete and monitored	There is a barrier preventing access to all parts of the MRS, and there is active, continual surveillance (e.g., by a guard, video monitoring) to ensure that the barrier is effectively preventing access to all parts of the MRS.	0	
EASE OF ACCESS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**10**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ease of Access*** classification in the space below.

As of August 2006, there is no fencing or signage restricting or limiting access to the area by the general public and the area is currently used for growing crops.

Table 5
EHE Module: Status of Property Data Element Table

Directions: Below are three classifications of the status of a property within the Department of Defense (DoD) and their descriptions. Annotate the score that corresponds with the status of property at the MRS.

Note: N/A

Classification	Description	Possible Score	Score
Non-DoD control	The MRS is at a location that is no longer owned by, leased to, or otherwise possessed or used by DoD. Examples are privately owned land or water bodies; land or water bodies owned or controlled by state, tribal, or local governments; and land or water bodies managed by other federal agencies.	5	5
Scheduled for transfer from DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD, and DoD plans to transfer that land or water body to the control of another entity (e.g., a state, tribal, or local government; a private party; another federal agency) within 3 years from the date the rule is applied.	3	
DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD. With respect to property that is leased or otherwise possessed, DoD must control access to the MRS 24 hours per day, every day of the calendar year.	0	
STATUS OF PROPERTY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Status of Property*** classification in the space below.

Camp Adair was acquired by the Army beginning in 1941. In 1946, the War Department declared Camp Adair surplus and was assigned to the War Assets Administration for disposition under the Surplus Property Act. In 1946, the property was transferred to the Department of Agriculture for sale by the Federal Land Bank. As of 2006, property ownership of this MRS is by private citizens. There is no controlled access to the FUDS.

Table 6
EHE Module: Population Density Data Element Table

Directions: Below are three classifications of population density and their descriptions. Determine the population density per square mile in the vicinity of the MRS and annotate the score that corresponds with the associated population density.

Note: If an MRS is located in more than one county, use the largest population density value among the counties. If the MRS is within or borders a city or town, use the population density for the city or town, rather than that of the county.

Classification	Description	Possible Score	Score
> 500 persons per square mile	There are more than 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	5	
100 - 500 persons per square mile	There are 100 to 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	3	
< 100 persons per square mile	There are fewer than 100 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	1	1
POPULATION DENSITY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**1**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Density*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 7
EHE Module: Population Near Hazard Data Element Table

Directions: Below are six classifications describing the number of inhabited structures near the MRS. The number of inhabited buildings relates to the population near the hazard. Determine the number of inhabited structures within two miles of the MRS boundary and annotate the score that corresponds with the associated population near the known or suspected hazard.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
26 or more inhabited structures	There are 26 or more inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	5	5
16 to 25 inhabited structures	There are 16 to 25 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	4	
11 to 15 inhabited structures	There are 11 to 15 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	3	
6 to 10 inhabited structures	There are 6 to 10 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	2	
1 to 5 inhabited structures	There are 1 to 5 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	1	
0 inhabited structures	There are no inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	0	
POPULATION NEAR HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Near Hazard*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 8

EHE Module: Types of Activities/Structures Data Element Table

Directions: Below are five classifications of activities and/or inhabited structures near the hazard and their descriptions. Review the types of activities that occur and/or structures that are present within two miles of the MRS and annotate the score(s) that correspond with **all** the activities/structure classifications at the MRS.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Residential, educational, commercial, or subsistence	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with any of the following purposes: residential, educational, child care, critical assets (e.g., hospitals, fire and rescue, police stations, dams), hotels, commercial, shopping centers, playgrounds, community gathering areas, religious sites, or sites used for subsistence hunting, fishing, and gathering.	5	5
Parks and recreational areas	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with parks, nature preserves, or other recreational uses.	4	4
Agricultural, forestry	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with agriculture or forestry.	3	3
Industrial or warehousing	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with industrial activities or warehousing.	2	
No known or recurring activities	There are no known or recurring activities occurring up to two miles from the MRS's boundary or within the MRS's boundary.	1	
TYPES OF ACTIVITIES/STRUCTURES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Types of Activities/Structures*** classifications in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 9

EHE Module: Ecological and/or Cultural Resources Data Element Table

Directions: Below are four classifications of ecological and/or cultural resources and their descriptions. Review the types of resources present and annotate the score that corresponds with the ecological and/or cultural resource classifications at the MRS.

Note: The terms *ecological resources* and *cultural resources* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Ecological and cultural resources present	There are both ecological and cultural resources present on the MRS.	5	
Ecological resources present	There are ecological resources present on the MRS.	3	
Cultural resources present	There are cultural resources present on the MRS.	3	
No ecological or cultural resources present	There are no ecological resources or cultural resources present on the MRS.	0	0
ECOLOGICAL AND/OR CULTURAL RESOURCES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**0**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ecological and/or Cultural Resources*** classification in the space below.

The State Historic Preservation Office (SHPO), U.S. Forest Service (USFS), and the Oregon Department of Fish and Wildlife (ODFW) were contacted regarding cultural and natural resources. The SHPO indicated that no potential cultural/archaeological resources were within the currently identified MRS No. 19. The ODFW, Oregon Department of Agriculture, and the U.S. Fish and Wildlife Service were contacted regarding identification of any potentially impacted, threatened, or endangered species at Camp Adair. Two plant species are known to grow in the Camp Adair area. However, the agencies were not concerned with the proposed site activities because of the fact they were minimally invasive (2007 SI Report, Sections 2.4.7, 3.2.1 and 3.2.2). This MRS is currently used for growing crops.

Table 10

Determining the EHE Module Rating

DIRECTIONS:

1. From Tables 01 - 09, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **EHE Module Total** box below.

4. Identify the appropriate range for the **EHE Module Total** at right.

5. Identify the **EHE Module Rating** that corresponds to the range selected and record this rating in the **EHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

	Source	Score	Value
Explosive Hazard Factor Data Elements			
Munitions Type	Table 01	5	11
Source of Hazard	Table 02	6	
Accessibility Factor Data Elements			
Location of Munitions	Table 03	5	20
Ease of Access	Table 04	10	
Status of Property	Table 05	5	
Receptor Factor Data Elements			
Population Density	Table 06	1	11
Population Near Hazard	Table 07	5	
Types of Activities/Structures	Table 08	5	
Ecological and/or Cultural Resources	Table 09	0	
EHE MODULE TOTAL			**42**

EHE Module Total	EHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected Explosive Hazard
EHE MODULE RATING	**F**

Table 11

CHE Module: CWM Configuration Data Element Table

Directions: Below are seven classifications of CWM configuration and their descriptions. Annotate the score(s) that correspond to **all** CWM configurations known or suspected to be present at the MRS.

Note: The terms *CWM/UXO*, *CWM/DMM*, *physical evidence*, and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
CWM, explosive configuration either UXO or damaged DMM	The CWM known or suspected of being present at the MRS is (a) explosively configured CWM that are UXO (i.e. CWM/UXO), or (b) explosively configured CWM that are DMM (i.e. CWM/DMM) that have been damaged.	30	
CWM mixed with UXO	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged, or nonexplosively configured CWM/DMM, or CWM not configured as a munition, that are commingled with conventional munitions that are UXO.	25	
CWM, explosive configuration that are undamaged DMM	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged.	20	
CWM, not explosively configured or CWM, bulk container	The CWM known or suspected of being present at the MRS is (a) nonexplosively configured CWM/DMM, or (b) bulk CWM/DMM (e.g., ton container).	15	
CAIS K941 and CAIS K942	The CWM/DMM known or suspected of being present at the MRS is CAIS K941(toxic gas set M-1) or CAIS K942 (toxic gas set M-2/E11).	12	
CAIS (chemical agent identification sets)	Only CAIS, other than CAIS K941 and K942, are known or suspected of being present at the MRS.	10	
Evidence of no CWM	Following investigation, the physical evidence indicates that CWM are not present at the MRS, or the historical evidence indicates that CWM are not present at the MRS.	0	0
CWM CONFIGURATION	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**0**

DIRECTIONS: Document any MRS-specific data used in selecting the ***CWM Configuration*** classifications in the space below.

As there are no records of munitions other than practice grenades being used at this MRA/MRS.

Table 20

Determining the CHE Module Rating

DIRECTIONS:

1. From Tables 11 - 19, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **CHE Module Total** box below.

	Source	Score	Value
CWM Hazard Factor Data Elements			
CWM Configuration	Table 11	0	0
Sources of CWM	Table 12	0	
Accessibility Factor Data Elements			
Location of CWM	Table 13	0	0
Ease of Access	Table 14	0	
Status of Property	Table 15	0	
Receptor Factor Data Elements			
Population Density	Table 16	0	0
Population Near Hazard	Table 17	0	
Types of Activities/Structures	Table 18	0	
Ecological and/or Cultural Resources	Table 19	0	
		CHE MODULE TOTAL	**0**

4. Identify the appropriate range for the **CHE Module Total** at right.

5. Identify the **CHE Module Rating** that corresponds to the range selected and record this rating in the **CHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

CHE Module Total	CHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected CWM Hazard
CHE MODULE RATING	**No Known or Suspected CWM Hazard**

Table 21

HHE Module: Groundwater Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's groundwater and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the groundwater, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
		Sum the Ratios	

CHF Scale	CHF Value	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**
100 > CHF >2	**M (Medium)**	
2 > CHF	**L (Low)**	

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the groundwater migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the groundwater is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in groundwater has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the groundwater to a potential point of exposure (possibly due to geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the groundwater receptors at the MRS.

Classification	Description	Value
Identified	There is a threatened water supply well downgradient of the source and the groundwater is a current source of drinking water or source of water for other beneficial uses such as irrigation/agriculture (equivalent to Class I or IIA aquifer).	H
Potential	There is no threatened water supply well downgradient of the source and the groundwater is currently or potentially usable for drinking water, irrigation, or agriculture (equivalent to Class I, IIA, or IIB aquifer).	M
Limited	There is no potentially threatened water supply well downgradient of the source and the groundwater is not considered a potential source of drinking water and is of limited beneficial use (equivalent to Class IIIA or IIIB aquifer, or where perched aquifer exists only).	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Groundwater MC Hazard	**X**

Table 22

HHE Module: Surface Water - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface water, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		
CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).		

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Human Endpoint) MC Hazard	**X**

Table 23

HHE Module: Sediment - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the site's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for human endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		
CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).		

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	
Place an "X" in the box to the right if there is no known or suspected Sediment (Human Endpoint) MC Hazard		**X**

Table 24

HHE Module: Surface Water - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the surface water, select the box at the bottom of the table.

Note: Use either dissolved or total metals analyses.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Ecological Endpoint) MC Hazard	**X**

Table 25

HHE Module: Sediment - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Sediment (Ecological Endpoint) MC Hazard	**X**

Table 26

HHE Module: Surface Soil - Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface soil and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface soil, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface soil migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface soil is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface soil has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface soil to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface soil receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface soil to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface soil to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface soil to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	
Place an "X" in the box to the right if there is no known or suspected Surface Soil MC Hazard		**X**

Table 27

HHE Module: Supplemental Contaminant Hazard Factor Table

Contaminant Hazard Factor (CHF)

Directions: **Only use this table if there are more than five contaminants present at the MRS.** This is a supplemental table designed to hold information about contaminants that do not fit in the previous tables. Indicate the **media** in which these contaminants are present. Then record all **contaminants**, their **maximum concentrations** and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Calculate and record the **ratio** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** for each medium on the appropriate media-specific tables.

Note: For human exposures to groundwater and surface water, use dissolved, rather than total, metals analyses when both are available. Remember not to add ratios from different media.

Media	Contaminant [CAS No.]	Maximum Concentration	Units	Comparison Value	Units	Ratios
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
					SUBTOTAL FOR SURFACE SOIL	**0**
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
					SUBTOTAL FOR SEDIMENT	**0**
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
					SUBTOTAL FOR SURFACE WATER	**0**
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
					SUBTOTAL FOR GROUNDWATER	**0**

Table 28

Determining the HHE Module Rating

DIRECTIONS:

1. Record the letter values (H, M, L) for the **Contaminant Hazard**, **Migration Pathway**, and **Receptor Factors** for the media (from Tables 21 - 26) in the corresponding boxes below.
2. Record the media's three-letter combinations in the **Three-Letter-Combination** boxes below (three-letter combinations are arranged from Hs to Ms to Ls).
3. Using the reference provided below, determine each medium's rating (A - G) and record the letter in the corresponding **Media Rating** box below.

Medium (Source)	Contaminant Hazard Factor Value	Migratory Pathway Factor Value	Receptor Factor Value	Three-Letter Combination (Hs-Ms-Ls)	Media Rating (A - G)
Table 21 - Groundwater					
Table 22 - Surface Water (Human Endpoint)					
Table 23 - Sediment (Human Endpoint)					
Table 24 - Surface Water (Ecological Endpoint)					
Table 25 - Sediment (Ecological Endpoint)					
Table 26 - Surface Soil					
			HHE MODULE RATING		**No Known or Suspected MC Hazard**

DIRECTIONS (Continued):

4. Select the single highest **Media Rating** (A is the highest; G is the lowest) and enter the letter in the **HHE Module Rating** box below.

HHE Ratings (for reference only)	
HHH	A
HHM	B
HHL	C
HMM	
HML	D
MMM	
HLL	E
MML	
MLL	F
LLL	G

NOTE: An alternative module rating may be assigned when a module letter rating is used when more information is needed to score one or more media, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

Alternative Module Ratings	
	Evaluation Pending
	No Longer Required
	No Known or Suspected MC Hazard

Table 29

MRS Priority

DIRECTIONS: In the chart below, enter the letter **rating** for each module recorded in Table 10 (EHE), Table 20 (CHE), and Table 28 (HHE). Enter the corresponding numerical **priority** for each module. If information to determine the module rating is not available, choose the appropriate alternative module rating. The MRS priority is the single highest priority; record this number in the **MRS or Alternative Priority** box at the bottom of the table.

NOTE: An MRS assigned Priority 1 has the highest relative priority; an MRS assigned Priority 8 has the lowest relative priority. Only an MRS with CWM known or suspected to be present can be assigned Priority 1; an MRS that has CWM known or suspected to be present cannot be assigned Priority 8.

EHE Rating	Priority	CHE Rating	Priority	HHE Rating	Priority
		A	1		
A	2	B	2	A	2
B	3	C	3	B	3
C	4	D	4	C	4
D	5	E	5	D	5
E	6	F	6	E	6
F	7	G	7	F	7
G	8			G	8
Evaluation Pending		Evaluation Pending		Evaluation Pending	
No Longer Required		No Longer Required		No Longer Required	
No Known or Suspected Explosive Hazard		No Known or Suspected CWM Hazard		No Known or Suspected MC Hazard	

Reference Table 10:		Reference Table 20:		Reference Table 28:	
EHE Module Rating	Priority	CHE Module Rating	Priority	HHE Module Rating	Priority
F	7	No Known or Suspected CWM Hazard	No Known or Suspected CWM Hazard	No Known or Suspected MC Hazard	No Known or Suspected MC Hazard

MRS or Alternative Priority	7

Table A

MRS Background Information

DIRECTIONS: Record the background information below for the MRS to be evaluated. Much of this information is available from DoD databases, such as RMIS. If the MRS is located on a FUDS property, the suitable FUDS property information should be substituted. In the MRS summary, briefly describe the UXO, DMM, or MC that are known or suspected to be present, the exposure setting (the MRS's physical environment), any other incidental non-munitions related contaminants found at the MRS (e.g., benzene, trichloroethylene), and any potentially exposed human and ecological receptors. Include a map of the MRS, if one is available.

Munitions Response Site (MRS) Name:	**MRS No. 20, Practice Grenade Courts No. 127**
Component:	US Army
Installation/Property Name:	**Camp Adair/Adair Air Force Station**
Location (City, County, State):	Benton County, Oregon
UTM Coordinates (NAD83):	N 4952719.00, E 482885.47
Site Name (RMIS ID):	Practice Grenade Court No. 127 (F10OR002903R07)
Project Name (Project No.):	Formerly Used Defense Sites, Military Munitions Response Program Site Inspections at Multiple Sites (116188)
Date Information Entered/Updated:	31-May-2007
Point of Contact (Name/Phone):	William Graney/206-764-3494

Project Phase ("X" only one):									
		PA	**X**	**SI**		**RI**		**FS**		**RD**
		RA-C		**RIP**		**RA-O**		**RC**		**LTM**

Media Evaluated ("X" all that apply):				
		Groundwater (human receptor)		**Sediment (human receptor)**
		Surface soil (human receptor)		**Surface water (ecological receptor)**
		Sediment (ecological receptor)		**Surface water (human receptor)**

MRS Summary

MRS Description: Describe the munitions-related activities that occurred at the installation, the dates of operation, and the UXO, DMM (by type of munition, if known) or munitions constituents (by type, if known) known or suspected to be present):

MRS No. 20 consists of Practice Grenade Court No. 127. This court was used by Camp Adair between 1942 and 1945. The MRS was used for training in practice hand grenades. Grenades used were M21 Practice Hand Grenade and Mk 1A1 Practice Hand Grenade. The landowner showed the SI field team 7 inert practice hand grenades that had been recovered from the court many years ago by the landowner's father (2007 SI Report, Section 4.2.4). The range area is currently used for growing agricultural crops.

Description of Pathways for Human and Ecological Receptors:

The potential pathways for MRS No. 20 are: terrestrial for humans (agricultural workers) and ecological (ingestion and uptake by wildlife and plants).

Description of Receptors (Human and Ecological):

Receptors in the area of this MRS would be agricultural workers and wildlife.

Table 1
EHE Module: Munitions Type Data Element Table

Directions: Below are eleven classifications of munitions and their descriptions. Annotate the score(s) that correspond with **all** munitions types known or suspected to be present at the MRS.

Note: The terms *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Sensitive	All UXO that are considered likely to function upon any interaction with exposed persons [e.g., submunitions, 40mm high-explosive (HE) grenades, white phosphorous (WP) munitions, high-explosive antitank (HEAT) munitions, and practice munitions with sensitive fuzes, but excluding all other practice munitions].	30	
	All hand grenades containing energetic filler.		
	Bulk primary explosives, or mixtures of these with environmental media, such that the mixture poses an explosive hazard.		
High explosive (used or damaged)	All UXO containing a high-explosive filler (e.g., RDX, Composition B), that are not considered "sensitive."	25	
	All DMM containing a high-explosive filler that have been damaged by burning or detonation, or deteriorated to the point of instability.		
Pyrotechnic (used or damaged)	All UXO containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades).	20	
	All DMM containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades) that have been damaged by burning or detonation, or deteriorated to the point of instability.		
High explosive (unused)	All DMM containing a high-explosive filler that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	15	
Propellant	All UXO containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor).	15	
	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor) that are damaged by burning or detonation, or deteriorated to the point of instability.		
Bulk secondary high explosives, pyrotechnics, or propellant	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor), that are deteriorated.	10	
	Bulk secondary high explosives, pyrotechnic compositions, or propellant (not contained in a munition), or mixtures of these with environmental media such that the mixture poses an explosive hazard.		
Pyrotechnic (not used or damaged)	All DMM containing a pyrotechnic filler (i.e. red phosphorous), other than white phosphorous filler, that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	10	
Practice	All UXO that are practice munitions that are not associated with a sensitive fuze.	5	5
	All DMM that are practice munitions that are not associated with a sensitive fuze and that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.		
Riot control	All UXO or DMM containing a riot control agent filler (e.g., tear gas).	3	
Small arms	All used munitions or DMM that are categorized as small arms ammunition [Physical evidence or historical evidence that no other types of munitions (e.g., grenades, subcaliber training rockets, demolition charges) were used or are present on the MRS is required for selection of this category.].	2	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
MUNITIONS TYPE	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Munitions Type*** classifications in the space below.

The ASR Site Inspection team inspected the MRS No. 20. The team reported no evidence of the court was found and there was no munitions debris found. The 2006 SI field team did not inspect this MRS. The landowner showed the SI field team 7 inert practice hand grenades that had been recovered from the court many years ago by the landowner's father (2007 SI Report, Section 4.2.4).

Table 2

EHE Module: Source of Hazard Data Element Table

Directions: Below are eleven classifications describing sources of explosive hazards. Annotate the score(s) that correspond with **all** sources of explosive hazards known or suspected to be present at the MRS.

Note: The terms *former range* , *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Former range	The MRS is a former military range where munitions (including practice munitions with sensitive fuzes) have been used. Such areas include: impact or target areas, associated buffer and safety zones, firing points, and live-fire maneuver areas.	10	
Former munitions treatment (i.e. OB/OD) unit	The MRS is a location where UXO or DMM (e.g., munitions, bulk explosives, bulk pyrotechnic, or bulk propellants) were burned or detonated for the purpose of treatment prior to disposal.	8	
Former practice munitions range	The MRS is a former military range on which only practice munitions without sensitive fuzes were used.	6	6
Former maneuver area	The MRS is a former maneuver area where no munitions other than flares, simulators, smokes, and blanks were used. There must be evidence that no other munitions were used at the location to place an MRS into this category.	5	
Former burial pit or other disposal area	The MRS is a location where DMM were buried or disposed of (e.g., disposed of into a water body) without prior thermal treatment.	5	
Former industrial operating facilities	The MRS is a location that is a former munitions maintenance, manufacturing, or demilitarization facility.	4	
Former firing points	The MRS is a firing point, where the firing point is delineated as an MRS separate from the rest of a former military range.	4	
Former missile or air defense artillery emplacements	The MRS is a former missile defense or air defense artillery (ADA) emplacement not associated with a military range.	2	
Former storage or transfer points	The MRS is a location where munitions were stored or handled for transfer between different modes of transportation (e.g., rail to truck, truck to weapon system).	2	
Former small arms range	The MRS is a former military range where only small arms ammunition was used [There must be evidence that no other types of munitions (e.g., grenades) were used or are present to place an MRS iinto this category.].	1	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that no UXO or DMM are present, or there is historical evidence indicating that no UXO or DMM are present.	0	
SOURCE OF HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**6**

DIRECTIONS: Document any MRS-specific data used in selecting the **Source of Hazard** classifications in the space below.

MRS No. 20 consists of Practice Grenade Court No. 127. This court was used by Camp Adair between 1942 and 1945. The MRS was used for training in practice hand grenades. Grenades used were M21 Practice Hand Grenade and Mk 1A1 Practice Hand Grenade.

Table 3
EHE Module: Location of Munitions Data Element Table

Directions: Below are eight classifications of munitions locations and their descriptions. Annotate the score(s) that correspond with **all** locations where munitions are located or suspected of being found at the MRS.

Note: The terms *surface* , *subsurface* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Confirmed surface	Physical evidence indicates that there are UXO or DMM on the surface of the MRS. Historical evidence (e.g., a confirmed incident report or accident report) indicates there are UXO or DMM on the surface of the MRS.	25	
Confirmed subsurface, active	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM.	20	
Confirmed subsurface, stable	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed.	15	
Suspected (physical evidence)	There is physical evidence (e.g., munitions debris, such fragments, penetrators, projectiles, shell casings, links, fins), other than the documented presence of UXO or DMM, indicating that UXO or DMM may be present at the MRS.	10	
Suspected (historical evidence)	There is historical evidence indicating that UXO or DMM may be present at the MRS.	5	5
Subsurface, physical constraint	There is physical or historical evidence indicating that UXO or DMM may be present in the subsurface, but there is a physical constraint (e.g., pavement, water depth over 120 feet) preventing direct access to the UXO or DMM.	2	
Small arms (regardless of location)	The presence of small arms ammunition is confirmed or suspected, regardless of other factors such as geological stability [There must be evidence that no other types of munitions (e.g., grenades) were used or are present at the MRS to place an MRS into this category.]	1	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
LOCATION OF MUNITIONS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 25).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Location of Munitions*** classifications in the space below.

The ASR Site Inspection team inspected the MRS No. 20. The team reported no evidence of the court was found and there was no munitions debris found. The 2006 SI field team did not inspect this MRS. The landowner showed the SI field team 7 inert practice hand grenades that had been recovered from the court many years ago by the landowner's father (2007 SI Report, Section 4.2.4).

Table 4
EHE Module: Ease of Access Data Element Table

Directions: Below are four classifications of barrier types that can surround an MRS and their descriptions. The barrier type is directly related to the ease of public access to any explosive materiel. Annotate the score that corresponds with the ease of access to the MRS.

Note: The term *barrier* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
No barrier	There is no barrier preventing access to any part of the MRS (i.e. all parts of the MRS are accessible).	10	10
Barrier to MRS access is incomplete	There is a barrier preventing access to parts of the MRS, but not the entire MRS.	8	
Barrier to MRS access is complete but not monitored	There is a barrier preventing access to all parts of the MRS, but there is no surveillance (e.g., by a guard) to ensure that the barrier is effectively preventing access to all parts of the MRS.	5	
Barrier to MRS access is complete and monitored	There is a barrier preventing access to all parts of the MRS, and there is active, continual surveillance (e.g., by a guard, video monitoring) to ensure that the barrier is effectively preventing access to all parts of the MRS.	0	
EASE OF ACCESS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**10**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ease of Access*** classification in the space below.

As of August 2006, there is no fencing or signage restricting or limiting access to the area by the general public and the area is currently used for growing crops.

Table 5
EHE Module: Status of Property Data Element Table

Directions: Below are three classifications of the status of a property within the Department of Defense (DoD) and their descriptions. Annotate the score that corresponds with the status of property at the MRS.

Note: N/A

Classification	Description	Possible Score	Score
Non-DoD control	The MRS is at a location that is no longer owned by, leased to, or otherwise possessed or used by DoD. Examples are privately owned land or water bodies; land or water bodies owned or controlled by state, tribal, or local governments; and land or water bodies managed by other federal agencies.	5	5
Scheduled for transfer from DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD, and DoD plans to transfer that land or water body to the control of another entity (e.g., a state, tribal, or local government; a private party; another federal agency) within 3 years from the date the rule is applied.	3	
DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD. With respect to property that is leased or otherwise possessed, DoD must control access to the MRS 24 hours per day, every day of the calendar year.	0	
STATUS OF PROPERTY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Status of Property*** classification in the space below.

Camp Adair was acquired by the Army beginning in 1941. In 1946, the War Department declared Camp Adair surplus and was assigned to the War Assets Administration for disposition under the Surplus Property Act. In 1946, the property was transferred to the Department of Agriculture for sale by the Federal Land Bank. As of 2006, property ownership of this MRS is by private citizens. There is no controlled access to the FUDS.

Table 6
EHE Module: Population Density Data Element Table

Directions: Below are three classifications of population density and their descriptions. Determine the population density per square mile in the vicinity of the MRS and annotate the score that corresponds with the associated population density.

Note: If an MRS is located in more than one county, use the largest population density value among the counties. If the MRS is within or borders a city or town, use the population density for the city or town, rather than that of the county.

Classification	Description	Possible Score	Score
> 500 persons per square mile	There are more than 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	5	
100 - 500 persons per square mile	There are 100 to 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	3	
< 100 persons per square mile	There are fewer than 100 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	1	1
POPULATION DENSITY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**1**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Density*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 7
EHE Module: Population Near Hazard Data Element Table

Directions: Below are six classifications describing the number of inhabited structures near the MRS. The number of inhabited buildings relates to the population near the hazard. Determine the number of inhabited structures within two miles of the MRS boundary and annotate the score that corresponds with the associated population near the known or suspected hazard.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
26 or more inhabited structures	There are 26 or more inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	5	5
16 to 25 inhabited structures	There are 16 to 25 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	4	
11 to 15 inhabited structures	There are 11 to 15 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	3	
6 to 10 inhabited structures	There are 6 to 10 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	2	
1 to 5 inhabited structures	There are 1 to 5 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	1	
0 inhabited structures	There are no inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	0	
POPULATION NEAR HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Near Hazard*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 8

EHE Module: Types of Activities/Structures Data Element Table

Directions: Below are five classifications of activities and/or inhabited structures near the hazard and their descriptions. Review the types of activities that occur and/or structures that are present within two miles of the MRS and annotate the score(s) that correspond with **all** the activities/structure classifications at the MRS.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Residential, educational, commercial, or subsistence	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with any of the following purposes: residential, educational, child care, critical assets (e.g., hospitals, fire and rescue, police stations, dams), hotels, commercial, shopping centers, playgrounds, community gathering areas, religious sites, or sites used for subsistence hunting, fishing, and gathering.	5	5
Parks and recreational areas	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with parks, nature preserves, or other recreational uses.	4	4
Agricultural, forestry	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with agriculture or forestry.	3	3
Industrial or warehousing	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with industrial activities or warehousing.	2	
No known or recurring activities	There are no known or recurring activities occurring up to two miles from the MRS's boundary or within the MRS's boundary.	1	
TYPES OF ACTIVITIES/STRUCTURES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Types of Activities/Structures*** classifications in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 9

EHE Module: Ecological and/or Cultural Resources Data Element Table

Directions: Below are four classifications of ecological and/or cultural resources and their descriptions. Review the types of resources present and annotate the score that corresponds with the ecological and/or cultural resource classifications at the MRS.

Note: The terms *ecological resources* and *cultural resources* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Ecological and cultural resources present	There are both ecological and cultural resources present on the MRS.	5	
Ecological resources present	There are ecological resources present on the MRS.	3	
Cultural resources present	There are cultural resources present on the MRS.	3	
No ecological or cultural resources present	There are no ecological resources or cultural resources present on the MRS.	0	0
ECOLOGICAL AND/OR CULTURAL RESOURCES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**0**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ecological and/or Cultural Resources*** classification in the space below.

The State Historic Preservation Office (SHPO), U.S. Forest Service (USFS), and the Oregon Department of Fish and Wildlife (ODFW) were contacted regarding cultural and natural resources. The SHPO indicated that no potential cultural/archaeological resources were within the currently identified MRS No. 20. The ODFW, Oregon Department of Agriculture, and the U.S. Fish and Wildlife Service were contacted regarding identification of any potentially impacted, threatened, or endangered species at Camp Adair. Two plant species are known to grow in the Camp Adair area. However, the agencies were not concerned with the proposed site activities because of the fact they were minimally invasive (2007 SI Report, Sections 2.4.7, 3.2.1 and 3.2.2). This MRS is currently used for growing crops.

Table 10

Determining the EHE Module Rating

DIRECTIONS:

1. From Tables 01 - 09, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **EHE Module Total** box below.

4. Identify the appropriate range for the **EHE Module Total** at right.

5. Identify the **EHE Module Rating** that corresponds to the range selected and record this rating in the **EHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

	Source	Score	Value
Explosive Hazard Factor Data Elements			
Munitions Type	Table 01	5	11
Source of Hazard	Table 02	6	
Accessibility Factor Data Elements			
Location of Munitions	Table 03	5	20
Ease of Access	Table 04	10	
Status of Property	Table 05	5	
Receptor Factor Data Elements			
Population Density	Table 06	1	11
Population Near Hazard	Table 07	5	
Types of Activities/Structures	Table 08	5	
Ecological and/or Cultural Resources	Table 09	0	
EHE MODULE TOTAL			**42**

EHE Module Total	EHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected Explosive Hazard
EHE MODULE RATING	**F**

Table 11

CHE Module: CWM Configuration Data Element Table

Directions: Below are seven classifications of CWM configuration and their descriptions. Annotate the score(s) that correspond to **all** CWM configurations known or suspected to be present at the MRS.

Note: The terms *CWM/UXO*, *CWM/DMM*, *physical evidence*, and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
CWM, explosive configuration either UXO or damaged DMM	The CWM known or suspected of being present at the MRS is (a) explosively configured CWM that are UXO (i.e. CWM/UXO), or (b) explosively configured CWM that are DMM (i.e. CWM/DMM) that have been damaged.	30	
CWM mixed with UXO	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged, or nonexplosively configured CWM/DMM, or CWM not configured as a munition, that are commingled with conventional munitions that are UXO.	25	
CWM, explosive configuration that are undamaged DMM	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged.	20	
CWM, not explosively configured or CWM, bulk container	The CWM known or suspected of being present at the MRS is (a) nonexplosively configured CWM/DMM, or (b) bulk CWM/DMM (e.g., ton container).	15	
CAIS K941 and CAIS K942	The CWM/DMM known or suspected of being present at the MRS is CAIS K941(toxic gas set M-1) or CAIS K942 (toxic gas set M-2/E11).	12	
CAIS (chemical agent identification sets)	Only CAIS, other than CAIS K941 and K942, are known or suspected of being present at the MRS.	10	
Evidence of no CWM	Following investigation, the physical evidence indicates that CWM are not present at the MRS, or the historical evidence indicates that CWM are not present at the MRS.	0	0
CWM CONFIGURATION	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**0**

DIRECTIONS: Document any MRS-specific data used in selecting the ***CWM Configuration*** classifications in the space below.

As there are no records of munitions other than practice grenades being used at this MRA/MRS.

Table 20

Determining the CHE Module Rating

DIRECTIONS:

1. From Tables 11 - 19, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **CHE Module Total** box below.

	Source	Score	Value
CWM Hazard Factor Data Elements			
CWM Configuration	Table 11	0	0
Sources of CWM	Table 12	0	
Accessibility Factor Data Elements			
Location of CWM	Table 13	0	0
Ease of Access	Table 14	0	
Status of Property	Table 15	0	
Receptor Factor Data Elements			
Population Density	Table 16	0	0
Population Near Hazard	Table 17	0	
Types of Activities/Structures	Table 18	0	
Ecological and/or Cultural Resources	Table 19	0	
		CHE MODULE TOTAL	**0**

4. Identify the appropriate range for the **CHE Module Total** at right.

5. Identify the **CHE Module Rating** that corresponds to the range selected and record this rating in the **CHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

CHE Module Total	CHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected CWM Hazard
CHE MODULE RATING	**No Known or Suspected CWM Hazard**

Table 21

HHE Module: Groundwater Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's groundwater and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the groundwater, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
		Sum the Ratios	

CHF Scale	CHF Value
CHF > 100	H (High)
100 > CHF >2	M (Medium)
2 > CHF	L (Low)

$CHF = \sum$ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the groundwater migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the groundwater is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in groundwater has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the groundwater to a potential point of exposure (possibly due to geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the groundwater receptors at the MRS.

Classification	Description	Value
Identified	There is a threatened water supply well downgradient of the source and the groundwater is a current source of drinking water or source of water for other beneficial uses such as irrigation/agriculture (equivalent to Class I or IIA aquifer).	H
Potential	There is no threatened water supply well downgradient of the source and the groundwater is currently or potentially usable for drinking water, irrigation, or agriculture (equivalent to Class I, IIA, or IIB aquifer).	M
Limited	There is no potentially threatened water supply well downgradient of the source and the groundwater is not considered a potential source of drinking water and is of limited beneficial use (equivalent to Class IIIA or IIIB aquifer, or where perched aquifer exists only).	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Groundwater MC Hazard	**X**

Table 22

HHE Module: Surface Water - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface water, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Human Endpoint) MC Hazard	**X**

Table 23

HHE Module: Sediment - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the site's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for human endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		
CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).		

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	
Place an "X" in the box to the right if there is no known or suspected Sediment (Human Endpoint) MC Hazard		**X**

Table 24

HHE Module: Surface Water - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the surface water, select the box at the bottom of the table.

Note: Use either dissolved or total metals analyses.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Ecological Endpoint) MC Hazard	**X**

Table 25

HHE Module: Sediment - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Sediment (Ecological Endpoint) MC Hazard	**X**

Table 26

HHE Module: Surface Soil - Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface soil and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface soil, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface soil migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface soil is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface soil has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface soil to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface soil receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface soil to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface soil to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface soil to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Soil MC Hazard	**X**

Table 27

HHE Module: Supplemental Contaminant Hazard Factor Table

Contaminant Hazard Factor (CHF)

Directions: **Only use this table if there are more than five contaminants present at the MRS.** This is a supplemental table designed to hold information about contaminants that do not fit in the previous tables. Indicate the **media** in which these contaminants are present. Then record all **contaminants**, their **maximum concentrations** and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Calculate and record the **ratio** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** for each medium on the appropriate media-specific tables.

Note: For human exposures to groundwater and surface water, use dissolved, rather than total, metals analyses when both are available. Remember not to add ratios from different media.

Media	Contaminant [CAS No.]	Maximum Concentration	Units	Comparison Value	Units	Ratios
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
					SUBTOTAL FOR SURFACE SOIL	**0**
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
					SUBTOTAL FOR SEDIMENT	**0**
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
					SUBTOTAL FOR SURFACE WATER	**0**
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
					SUBTOTAL FOR GROUNDWATER	**0**

Table 28

Determining the HHE Module Rating

DIRECTIONS:

1. Record the letter values (H, M, L) for the **Contaminant Hazard**, **Migration Pathway**, and **Receptor Factors** for the media (from Tables 21 - 26) in the corresponding boxes below.
2. Record the media's three-letter combinations in the **Three-Letter-Combination** boxes below (three-letter combinations are arranged from Hs to Ms to Ls).
3. Using the reference provided below, determine each medium's rating (A - G) and record the letter in the corresponding **Media Rating** box below.

Medium (Source)	Contaminant Hazard Factor Value	Migratory Pathway Factor Value	Receptor Factor Value	Three-Letter Combination (Hs-Ms-Ls)	Media Rating (A - G)
Table 21 - Groundwater					
Table 22 - Surface Water (Human Endpoint)					
Table 23 - Sediment (Human Endpoint)					
Table 24 - Surface Water (Ecological Endpoint)					
Table 25 - Sediment (Ecological Endpoint)					
Table 26 - Surface Soil					
			HHE MODULE RATING		**No Known or Suspected MC Hazard**

DIRECTIONS (Continued):

4. Select the single highest **Media Rating** (A is the highest; G is the lowest) and enter the letter in the **HHE Module Rating** box below.

HHE Ratings (for reference only)	
HHH	A
HHM	B
HHL	C
HMM	
HML	D
MMM	
HLL	E
MML	
MLL	F
LLL	G

NOTE: An alternative module rating may be assigned when a module letter rating is used when more information is needed to score one or more media, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

Alternative Module Ratings	
	Evaluation Pending
	No Longer Required
	No Known or Suspected MC Hazard

Table 29

MRS Priority

DIRECTIONS: In the chart below, enter the letter **rating** for each module recorded in Table 10 (EHE), Table 20 (CHE), and Table 28 (HHE). Enter the corresponding numerical **priority** for each module. If information to determine the module rating is not available, choose the appropriate alternative module rating. The MRS priority is the single highest priority; record this number in the **MRS or Alternative Priority** box at the bottom of the table.

NOTE: An MRS assigned Priority 1 has the highest relative priority; an MRS assigned Priority 8 has the lowest relative priority. Only an MRS with CWM known or suspected to be present can be assigned Priority 1; an MRS that has CWM known or suspected to be present cannot be assigned Priority 8.

EHE Rating	Priority	CHE Rating	Priority	HHE Rating	Priority
		A	1		
A	2	B	2	A	2
B	3	C	3	B	3
C	4	D	4	C	4
D	5	E	5	D	5
E	6	F	6	E	6
F	7	G	7	F	7
G	8			G	8
Evaluation Pending		Evaluation Pending		Evaluation Pending	
No Longer Required		No Longer Required		No Longer Required	
No Known or Suspected Explosive Hazard		No Known or Suspected CWM Hazard		No Known or Suspected MC Hazard	

Reference Table 10:		Reference Table 20:		Reference Table 28:	
EHE Module Rating	Priority	CHE Module Rating	Priority	HHE Module Rating	Priority
F	7	No Known or Suspected CWM Hazard	No Known or Suspected CWM Hazard	No Known or Suspected MC Hazard	No Known or Suspected MC Hazard

MRS or Alternative Priority	7

Table A

MRS Background Information

DIRECTIONS: Record the background information below for the MRS to be evaluated. Much of this information is available from DoD databases, such as RMIS. If the MRS is located on a FUDS property, the suitable FUDS property information should be substituted. In the MRS summary, briefly describe the UXO, DMM, or MC that are known or suspected to be present, the exposure setting (the MRS's physical environment), any other incidental non-munitions related contaminants found at the MRS (e.g., benzene, trichloroethylene), and any potentially exposed human and ecological receptors. Include a map of the MRS, if one is available.

Munitions Response Site (MRS) Name:	**MRS No. 21, Chemical Identification Area No. 182**
Component:	US Army
Installation/Property Name:	**Camp Adair/Adair Air Force Station**
Location (City, County, State):	Benton County, Oregon
UTM Coordinates (NAD83):	N 4951829.25, E 481063.68
Site Name (RMIS ID):	Chemical Ident. Area No. 182 (F10OR002903R06)
Project Name (Project No.):	Formerly Used Defense Sites, Military Munitions Response Program Site Inspections at Multiple Sites (116188)
Date Information Entered/Updated:	31-May-2007
Point of Contact (Name/Phone):	William Graney/206-764-3494

Project Phase ("X" only one):									
		PA	**X**	**SI**		**RI**		**FS**		**RD**
		RA-C		**RIP**		**RA-O**		**RC**		**LTM**

Media Evaluated ("X" all that apply):				
		Groundwater (human receptor)		**Sediment (human receptor)**
		Surface soil (human receptor)		**Surface water (ecological receptor)**
		Sediment (ecological receptor)		**Surface water (human receptor)**

MRS Summary

MRS Description: Describe the munitions-related activities that occurred at the installation, the dates of operation, and the UXO, DMM (by type of munition, if known) or munitions constituents (by type, if known) known or suspected to be present):

MRS No. 21 consists entirely of the Chemical Identification Area No. 182 and was used by Camp Adair between 1942 and 1945. The MRS was used for gas chamber training, gas identification, and toxic gases decontamination excercises. Munitions ussed were M1 tear gas pots, riot control capsule (CS), Chemical Agent Identification Set (CAIS), toxic Gas Chemical ID set. No MEC has been reported in the past. The range area is currently used to grow agricultural crops (2007 SI Report, Section 5.7.1).

Description of Pathways for Human and Ecological Receptors:

There are no complete pathways for MRS No. 21, the Chemical Identification Area No. 182, because there is no MEC or munitions debris at the site. The pathways would be terrestrial for humans (agricultural workers and residents) and ecological (ingestion and uptake by wildlife and plants).

Description of Receptors (Human and Ecological):

Receptors in the area of the Chemical Identification Area No. 182 MRS would be agricultural workers and wildlife.

Table 1
EHE Module: Munitions Type Data Element Table

Directions: Below are eleven classifications of munitions and their descriptions. Annotate the score(s) that correspond with **all** munitions types known or suspected to be present at the MRS.

Note: The terms *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Sensitive	All UXO that are considered likely to function upon any interaction with exposed persons [e.g., submunitions, 40mm high-explosive (HE) grenades, white phosphorous (WP) munitions, high-explosive antitank (HEAT) munitions, and practice munitions with sensitive fuzes, but excluding all other practice munitions].	30	
	All hand grenades containing energetic filler.		
	Bulk primary explosives, or mixtures of these with environmental media, such that the mixture poses an explosive hazard.		
High explosive (used or damaged)	All UXO containing a high-explosive filler (e.g., RDX, Composition B), that are not considered "sensitive."	25	
	All DMM containing a high-explosive filler that have been damaged by burning or detonation, or deteriorated to the point of instability.		
Pyrotechnic (used or damaged)	All UXO containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades).	20	
	All DMM containing pyrotechnic fillers other than white phosphorous (e.g., flares, signals, simulators, smoke grenades) that have been damaged by burning or detonation, or deteriorated to the point of instability.		
High explosive (unused)	All DMM containing a high-explosive filler that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	15	
Propellant	All UXO containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor).	15	
	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor) that are damaged by burning or detonation, or deteriorated to the point of instability.		
Bulk secondary high explosives, pyrotechnics, or propellant	All DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor), that are deteriorated.	10	
	Bulk secondary high explosives, pyrotechnic compositions, or propellant (not contained in a munition), or mixtures of these with environmental media such that the mixture poses an explosive hazard.		
Pyrotechnic (not used or damaged)	All DMM containing a pyrotechnic filler (i.e. red phosphorous), other than white phosphorous filler, that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.	10	
Practice	All UXO that are practice munitions that are not associated with a sensitive fuze.	5	
	All DMM that are practice munitions that are not associated with a sensitive fuze and that have not been damaged by burning or detonation, or are not deteriorated to the point of instability.		
Riot control	All UXO or DMM containing a riot control agent filler (e.g., tear gas).	3	3
Small arms	All used munitions or DMM that are categorized as small arms ammunition [Physical evidence or historical evidence that no other types of munitions (e.g., grenades, subcaliber training rockets, demolition charges) were used or are present on the MRS is required for selection of this category.].	2	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	
MUNITIONS TYPE	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**3**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Munitions Type*** classifications in the space below.

The ASR Site Inspection team inspected MRS No. 21. The team reported no evidence of the chamber was found and there was no munitions debris found. The 2006 SI field team did not inspect this MRS. Location of detonation of chemical land mine use at Camp Adair is not known (ASR, pg 46). It was likely not at this MRS, as it was described as using 300 yards of length to conduct the exercise (and this MRS is identified as a chamber).

Table 2

EHE Module: Source of Hazard Data Element Table

Directions: Below are eleven classifications describing sources of explosive hazards. Annotate the score(s) that correspond with **all** sources of explosive hazards known or suspected to be present at the MRS.

Note: The terms *former range* , *practice munitions* , *small arms* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Former range	The MRS is a former military range where munitions (including practice munitions with sensitive fuzes) have been used. Such areas include: impact or target areas, associated buffer and safety zones, firing points, and live-fire maneuver areas.	10	
Former munitions treatment (i.e. OB/OD) unit	The MRS is a location where UXO or DMM (e.g., munitions, bulk explosives, bulk pyrotechnic, or bulk propellants) were burned or detonated for the purpose of treatment prior to disposal.	8	
Former practice munitions range	The MRS is a former military range on which only practice munitions without sensitive fuzes were used.	6	
Former maneuver area	The MRS is a former maneuver area where no munitions other than flares, simulators, smokes, and blanks were used. There must be evidence that no other munitions were used at the location to place an MRS into this category.	5	
Former burial pit or other disposal area	The MRS is a location where DMM were buried or disposed of (e.g., disposed of into a water body) without prior thermal treatment.	5	
Former industrial operating facilities	The MRS is a location that is a former munitions maintenance, manufacturing, or demilitarization facility.	4	
Former firing points	The MRS is a firing point, where the firing point is delineated as an MRS separate from the rest of a former military range.	4	
Former missile or air defense artillery emplacements	The MRS is a former missile defense or air defense artillery (ADA) emplacement not associated with a military range.	2	
Former storage or transfer points	The MRS is a location where munitions were stored or handled for transfer between different modes of transportation (e.g., rail to truck, truck to weapon system).	2	
Former small arms range	The MRS is a former military range where only small arms ammunition was used [There must be evidence that no other types of munitions (e.g., grenades) were used or are present to place an MRS iinto this category.].	1	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that no UXO or DMM are present, or there is historical evidence indicating that no UXO or DMM are present.	0	0
SOURCE OF HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**0**

DIRECTIONS: Document any MRS-specific data used in selecting the **Source of Hazard** classifications in the space below.

MRS No. 21 consists entirely of the Chemical Identification Area No. 182 and was used by Camp Adair between 1942 and 1945. The MRS was used for gas chamber training, gas identification, and potentually toxic gases decontamination excercises. Munitions used were M1 tear gas pots, riot control capsule (CS), CAIS, Toxic Gas Chemical ID set. No MEC has been reported in the past. Location of detonation of chemical land mine use at Camp Adair is not known (ASR, pg 46). It was likely not at this MRS, as it was described as using 300 yards of length to conduct the exercise (and this MRS is identified as a chamber). The range area is currently used for grow agricultural crops.

Table 3
EHE Module: Location of Munitions Data Element Table

Directions: Below are eight classifications of munitions locations and their descriptions. Annotate the score(s) that correspond with **all** locations where munitions are located or suspected of being found at the MRS.

Note: The terms *surface* , *subsurface* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Confirmed surface	Physical evidence indicates that there are UXO or DMM on the surface of the MRS. Historical evidence (e.g., a confirmed incident report or accident report) indicates there are UXO or DMM on the surface of the MRS.	25	
Confirmed subsurface, active	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM.	20	
Confirmed subsurface, stable	Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed. Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed.	15	
Suspected (physical evidence)	There is physical evidence (e.g., munitions debris, such fragments, penetrators, projectiles, shell casings, links, fins), other than the documented presence of UXO or DMM, indicating that UXO or DMM may be present at the MRS.	10	
Suspected (historical evidence)	There is historical evidence indicating that UXO or DMM may be present at the MRS.	5	
Subsurface, physical constraint	There is physical or historical evidence indicating that UXO or DMM may be present in the subsurface, but there is a physical constraint (e.g., pavement, water depth over 120 feet) preventing direct access to the UXO or DMM.	2	
Small arms (regardless of location)	The presence of small arms ammunition is confirmed or suspected, regardless of other factors such as geological stability [There must be evidence that no other types of munitions (e.g., grenades) were used or are present at the MRS to place an MRS into this category.]	1	
Evidence of no munitions	Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	0	0
LOCATION OF MUNITIONS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 25).		**0**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Location of Munitions*** classifications in the space below.

The ASR Site Inspection team inspected MRS No. 21. The team reported no evidence of the chamber was found and there was no munitions debris found (ASR Supplement, 2004). Munitions used were M1 tear gas pots, riot control capsule (CS). Location of detonation of chemical land mine use at Camp Adair is not known (ASR, pg 46). It was likely not at this MRS, as it was described as using 300 yards of length to conduct the exercise (and this MRS is identified as a chamber). The 2006 SI field team did not inspect this MRS.

Table 4
EHE Module: Ease of Access Data Element Table

Directions: Below are four classifications of barrier types that can surround an MRS and their descriptions. The barrier type is directly related to the ease of public access to any explosive materiel. Annotate the score that corresponds with the ease of access to the MRS.

Note: The term *barrier* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
No barrier	There is no barrier preventing access to any part of the MRS (i.e. all parts of the MRS are accessible).	10	10
Barrier to MRS access is incomplete	There is a barrier preventing access to parts of the MRS, but not the entire MRS.	8	
Barrier to MRS access is complete but not monitored	There is a barrier preventing access to all parts of the MRS, but there is no surveillance (e.g., by a guard) to ensure that the barrier is effectively preventing access to all parts of the MRS.	5	
Barrier to MRS access is complete and monitored	There is a barrier preventing access to all parts of the MRS, and there is active, continual surveillance (e.g., by a guard, video monitoring) to ensure that the barrier is effectively preventing access to all parts of the MRS.	0	
EASE OF ACCESS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**10**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ease of Access*** classification in the space below.

As of August 2006, there is no fencing or signage restricting or limiting access to the area by the general public and the area is currently used for growing crops.

Table 5
EHE Module: Status of Property Data Element Table

Directions: Below are three classifications of the status of a property within the Department of Defense (DoD) and their descriptions. Annotate the score that corresponds with the status of property at the MRS.

Note: N/A

Classification	Description	Possible Score	Score
Non-DoD control	The MRS is at a location that is no longer owned by, leased to, or otherwise possessed or used by DoD. Examples are privately owned land or water bodies; land or water bodies owned or controlled by state, tribal, or local governments; and land or water bodies managed by other federal agencies.	5	5
Scheduled for transfer from DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD, and DoD plans to transfer that land or water body to the control of another entity (e.g., a state, tribal, or local government; a private party; another federal agency) within 3 years from the date the rule is applied.	3	
DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD. With respect to property that is leased or otherwise possessed, DoD must control access to the MRS 24 hours per day, every day of the calendar year.	0	
STATUS OF PROPERTY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Status of Property*** classification in the space below.

Camp Adair was acquired by the Army beginning in 1941. In 1946, the War Department declared Camp Adair surplus and was assigned to the War Assets Administration for disposition under the Surplus Property Act. In 1946, the property was transferred to the Department of Agriculture for sale by the Federal Land Bank. As of 2006, property ownership of the MRS No. 21 was by private citizens. There is no controlled access to the FUDS.

Table 6
EHE Module: Population Density Data Element Table

Directions: Below are three classifications of population density and their descriptions. Determine the population density per square mile in the vicinity of the MRS and annotate the score that corresponds with the associated population density.

Note: If an MRS is located in more than one county, use the largest population density value among the counties. If the MRS is within or borders a city or town, use the population density for the city or town, rather than that of the county.

Classification	Description	Possible Score	Score
> 500 persons per square mile	There are more than 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	5	
100 - 500 persons per square mile	There are 100 to 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	3	
< 100 persons per square mile	There are fewer than 100 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	1	1
POPULATION DENSITY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**1**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Density*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 7
EHE Module: Population Near Hazard Data Element Table

Directions: Below are six classifications describing the number of inhabited structures near the MRS. The number of inhabited buildings relates to the population near the hazard. Determine the number of inhabited structures within two miles of the MRS boundary and annotate the score that corresponds with the associated population near the known or suspected hazard.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
26 or more inhabited structures	There are 26 or more inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	5	5
16 to 25 inhabited structures	There are 16 to 25 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	4	
11 to 15 inhabited structures	There are 11 to 15 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	3	
6 to 10 inhabited structures	There are 6 to 10 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	2	
1 to 5 inhabited structures	There are 1 to 5 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	1	
0 inhabited structures	There are no inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	0	
POPULATION NEAR HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Near Hazard*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 8

EHE Module: Types of Activities/Structures Data Element Table

Directions: Below are five classifications of activities and/or inhabited structures near the hazard and their descriptions. Review the types of activities that occur and/or structures that are present within two miles of the MRS and annotate the score(s) that correspond with **all** the activities/structure classifications at the MRS.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Residential, educational, commercial, or subsistence	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with any of the following purposes: residential, educational, child care, critical assets (e.g., hospitals, fire and rescue, police stations, dams), hotels, commercial, shopping centers, playgrounds, community gathering areas, religious sites, or sites used for subsistence hunting, fishing, and gathering.	5	5
Parks and recreational areas	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with parks, nature preserves, or other recreational uses.	4	4
Agricultural, forestry	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with agriculture or forestry.	3	3
Industrial or warehousing	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with industrial activities or warehousing.	2	
No known or recurring activities	There are no known or recurring activities occurring up to two miles from the MRS's boundary or within the MRS's boundary.	1	
TYPES OF ACTIVITIES/STRUCTURES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Types of Activities/Structures*** classifications in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 9

EHE Module: Ecological and/or Cultural Resources Data Element Table

Directions: Below are four classifications of ecological and/or cultural resources and their descriptions. Review the types of resources present and annotate the score that corresponds with the ecological and/or cultural resource classifications at the MRS.

Note: The terms *ecological resources* and *cultural resources* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Ecological and cultural resources present	There are both ecological and cultural resources present on the MRS.	5	
Ecological resources present	There are ecological resources present on the MRS.	3	
Cultural resources present	There are cultural resources present on the MRS.	3	
No ecological or cultural resources present	There are no ecological resources or cultural resources present on the MRS.	0	0
ECOLOGICAL AND/OR CULTURAL RESOURCES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**0**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ecological and/or Cultural Resources*** classification in the space below.

The State Historic Preservation Office (SHPO), U.S. Forest Service (USFS), and the Oregon Department of Fish and Wildlife (ODFW) were contacted regarding cultural and natural resources. The SHPO indicated that no potential cultural/archaeological resources were within the currently identified MRS No. 21. The ODFW, Oregon Department of Agriculture, and the U.S. Fish and Wildlife Service were contacted regarding identification of any potentially impacted, threatened, or endangered species at Camp Adair. Two plant species are known to grow in the Camp Adair area. However, the agencies were not concerned with the proposed site activities because of the fact they were minimally invasive (2007 SI Report, Sections 2.4.7, 3.2.1 and 3.2.2). None were identified for this MRS. The MRS is currently a tilled area used for growing crops. No ecologically sensitive areas are within the MRS.

Table 10

Determining the EHE Module Rating

DIRECTIONS:

1. From Tables 01 - 09, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **EHE Module Total** box below.

4. Identify the appropriate range for the **EHE Module Total** at right.

5. Identify the **EHE Module Rating** that corresponds to the range selected and record this rating in the **EHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

	Source	Score	Value
Explosive Hazard Factor Data Elements			
Munitions Type	Table 01	3	3
Source of Hazard	Table 02	0	
Accessibility Factor Data Elements			
Location of Munitions	Table 03	0	15
Ease of Access	Table 04	10	
Status of Property	Table 05	5	
Receptor Factor Data Elements			
Population Density	Table 06	1	11
Population Near Hazard	Table 07	5	
Types of Activities/Structures	Table 08	5	
Ecological and/or Cultural Resources	Table 09	0	
EHE MODULE TOTAL			**29**

EHE Module Total	EHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected Explosive Hazard
EHE MODULE RATING	**G**

Table 11

CHE Module: CWM Configuration Data Element Table

Directions: Below are seven classifications of CWM configuration and their descriptions. Annotate the score(s) that correspond to **all** CWM configurations known or suspected to be present at the MRS.

Note: The terms *CWM/UXO*, *CWM/DMM*, *physical evidence*, and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
CWM, explosive configuration either UXO or damaged DMM	The CWM known or suspected of being present at the MRS is (a) explosively configured CWM that are UXO (i.e. CWM/UXO), or (b) explosively configured CWM that are DMM (i.e. CWM/DMM) that have been damaged.	30	
CWM mixed with UXO	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged, or nonexplosively configured CWM/DMM, or CWM not configured as a munition, that are commingled with conventional munitions that are UXO.	25	
CWM, explosive configuration that are undamaged DMM	The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged.	20	
CWM, not explosively configured or CWM, bulk container	The CWM known or suspected of being present at the MRS is (a) nonexplosively configured CWM/DMM, or (b) bulk CWM/DMM (e.g., ton container).	15	
CAIS K941 and CAIS K942	The CWM/DMM known or suspected of being present at the MRS is CAIS K941(toxic gas set M-1) or CAIS K942 (toxic gas set M-2/E11).	12	12
CAIS (chemical agent identification sets)	Only CAIS, other than CAIS K941 and K942, are known or suspected of being present at the MRS.	10	10
Evidence of no CWM	Following investigation, the physical evidence indicates that CWM are not present at the MRS, or the historical evidence indicates that CWM are not present at the MRS.	0	0
CWM CONFIGURATION	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 30).		**12**

DIRECTIONS: Document any MRS-specific data used in selecting the ***CWM Configuration*** classifications in the space below.

MRS No. 21 was used for gas chamber training, gas identification, and toxic gases decontamination excercises. Munitions used were M1 tear gas pots, riot control capsule (CS), CAIS M1 (K941), Detonation CAIS M1(951/952), (ASR, Appendix C-17).

Table 12

CHE Module: Sources of CWM Data Element Table

Directions: Below are eleven sources of CWM hazards and their descriptions. Review these classifications and annotate the score(s) that correspond with **all** the sources of CWM hazards known or suspected to be present at the MRS.

Note: The terms *CWM/UXO* , *CWM/DMM* , *surface* , *subsurface* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Live-fire involving CWM	The MRS is a former military range that supported live-fire of explosively configured CWM and the CWM/UXO are known or suspected of being present on the surface or in the subsurface.	10	
	The MRS is a former military range that supported live-fire with conventional munitions, and CWM/DMM are on the surface or in the subsurface commingled with conventional munitions that are UXO.		
Damaged CWM/DMM surface or subsurface	There are damaged CWM/DMM on the surface or in the subsurface at the MRS.	10	
Undamaged CWM/DMM surface	There are undamaged CWM/DMM on the surface at the MRS.	10	
CAIS/DMM surface	There are CAIS/DMM on the surface.	10	
Undamaged CWM/DMM subsurface	There are undamaged CWM/DMM in the subsurface at the MRS.	5	
CAIS/DMM subsurface	There are CAIS/DMM in the subsurface at the MRS.	5	
Former CA or CWM Production Facilities	The MRS is a facility that formerly engaged in production of CA or CWM, and CWM/DMM is suspected of being present on the surface or in the subsurface.	3	
Former Research, Development, Testing, and Evaluation (RDT&E) facility using CWM	The MRS is at a facility that formerly was involved in non-live-fire RDT&E activities (including static testing) involving CWM, and there are CWM/DMM suspected of being present on the surface or in the subsurface.	3	
Former Training Facility using CWM or CAIS	The MRS is a location that formerly was involved in training activities involving CWM and/or CAIS (e.g., training in recognition of CWA, decontamination training) and CWM/DMM or CAIS/DMM are suspected of being present on the surface or in the subsurface.	2	2
Former Storage or Transfer Points of CWM	The MRS is a former storage facility or transfer point (e.g., intermodal transfer) for CWM.	1	
Evidence of no CWM	Following investigation, the physical evidence indicates that CWM are not present at the MRS, or the historical evidence indicates that CWM are not present at the MRS.	0	
SOURCES OF CWM	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**2**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Sources of CWM*** classifications in the space below.

MRS No. 21 was used for gas chamber training, gas identification, and toxic gases decontamination excercises. Munitions used were M1 tear gas pots, riot control capsule (CS), CAIS M1 (K941), Detonation CAIS M1(951/952), (ASR, Appendix C-15, C-16, C-17).

Table 13

CHE Module: Location of CWM Data Element Table

Directions: Below are seven classifications of CWM locations and their descriptions. Review these locations and annotate the score(s) that correspond with **all** locations where CWM are located or suspected of being found at the MRS.

Note: The terms *surface* , *subsurface* , *physical evidence* , and *historical evidence* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Confirmed surface	Physical evidence indicates that there are CWM on the surface of the MRS.	25	
	Historical evidence (e.g., a confirmed incident report or accident report) indicates there are CWM on the surface of the MRS.		
Confirmed subsurface, active	Physical evidence indicates the presence of CWM in the subsurface of the MRS, and the geological conditions at the MRS are likely to cause CWM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS, are likely to expose CWM.	20	
	Historical evidence indicates that CWM are located in the subsurface of the MRS and the geological conditions at the MRS are likely to cause CWM to be exposed, in the future, by naturally occurring phenomena (e.g., drought, flooding, erosion, frost, heat heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS, are likely to expose CWM.		
Confirmed subsurface, stable	Physical evidence indicates the presence of CWM in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause CWM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities, at the MRS, are not likely to cause CWM to be exposed.	15	
	Historical evidence indicates that CWM are located in the subsurface of the MRS, and the geological conditions at the MRS are not likely to cause CWM to be exposed, in the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause CWM to be exposed.		
Suspected (physical evidence)	There is physical evidence, other than the documented presence of CWM, indicating that CWM may be present at the MRS.	10	
Suspected (historical evidence)	There is historical evidence indicating that CWM may be present at the MRS.	5	5
Subsurface, physical constraint	There is physical or historical evidence indicating that CWM may be present in the subsurface, but there is a physical constraint (e.g., pavement, water depth over 120 feet) preventing direct access to the CWM.	2	
Evidence of no CWM	Following investigation of the MRS, there is physical evidence that there is no CWM present, or there is historical evidence indicating that no CWM are present.	0	
LOCATION OF CWM	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 25).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Location of CWM*** classifications in the space below.

MRS No. 21 was used for gas chamber training, gas identification, and toxic gases decontamination excercises. Munitions ussed were M1 tear gas pots, riot control capsule (CS), CAIS, Detonation Chemical ID set M1, toxic Gas Chemical ID set M1 (K941) (ASR, Appendix C-17). No MEC has been reported in the past.

Table 14
CHE Module: Ease of Access Data Element Table

Directions: Below are four classifications of barrier types that can surround an MRS and their descriptions. The barrier type is directly related to the ease of public access to any CWM. Annotate the score that corresponds with the ease of access to the MRS.

Note: The term *barrier* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
No barrier	There is no barrier preventing access to any part of the MRS (i.e. all parts of the MRS are accessible).	10	10
Barrier to MRS access is incomplete	There is a barrier preventing access to parts of the MRS, but not the entire MRS.	8	
Barrier to MRS access is complete but not monitored	There is a barrier preventing access to all parts of the MRS, but there is no surveillance (e.g., by a guard) to ensure that the barrier is effectively preventing access to all parts of the MRS.	5	
Barrier to MRS access is complete and monitored	There is a barrier preventing access to all parts of the MRS, and there is active continual surveillance (e.g., by a guard, video monitoring) to ensure that the barrier is effectively preventing access to all parts of the MRS.	0	
EASE OF ACCESS	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 10).		**10**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ease of Access*** classification in the space below.

As of August 2006, there is no fencing or signage restricting or limiting access to the area by the general public and the area is currently used for growing crops.

Table 15
CHE Module: Status of Property Data Element Table

Directions: Below are three classifications of the status of a property within the Department of Defense (DoD) and their descriptions. Annotate the score that corresponds with the status of property at the MRS.

Note: N/A

Classification	Description	Possible Score	Score
Non-DoD control	The MRS is at a location that is no longer owned by, leased to, or otherwise possessed or used by DoD. Examples are privately owned land or water bodies; land or water bodies owned or controlled by state, tribal, or local governments; and land or water bodies managed by other federal agencies.	5	5
Scheduled for transfer from DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD, and DoD plans to transfer that land or water body to the control of another entity (e.g., a state, tribal, or local government; a private party; another federal agency) within 3 years from the date the rule is applied.	3	
DoD control	The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD. With respect to property that is leased or otherwise possessed, DoD controls access to the property 24 hours per day, every day of the calendar year.	0	
STATUS OF PROPERTY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Status of Property*** classification in the space below.

Camp Adair was acquired by the Army beginning in 1941. In 1946, the War Department declared Camp Adair surplus and was assigned to the War Assets Administration for disposition under the Surplus Property Act. In 1946, the property was transferred to the Department of Agriculture for sale by the Federal Land Bank. As of 2006, property ownership of the MRS No. 21 was by private citizens. There is no controlled access to the FUDS.

Table 16

CHE Module: Population Density Data Element Table

Directions: Below are three classifications of population density and their descriptions. Determine the population density per square mile in the vicinity of the MRS and annotate the score that corresponds with the associated population density.

Note: If an MRS is located in more than one county, use the largest population density value among the counties. If the MRS is within or borders a city or town, use the population density for the city or town, rather than that of the county.

Classification	Description	Possible Score	Score
> 500 persons per square mile	There are more than 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	5	
100 - 500 persons per square mile	There are 100 to 500 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	3	
< 100 persons per square mile	There are fewer than 100 persons per square mile in the county in which the MRS is located, based on US Census Bureau data.	1	1
POPULATION DENSITY	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**1**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Density*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 17

CHE Module: Population Near Hazard Data Element Table

Directions: Below are six classifications describing the number of inhabited structures near the MRS. The number of inhabited buildings relates to the population near the hazard. Determine the number of inhabited structures within two miles of the MRS boundary and annotate the score that corresponds with the associated population near the known or suspected hazard.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
26 or more inhabited structures	There are 26 or more inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	5	5
16 to 25 inhabited structures	There are 16 to 25 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	4	
11 to 15 inhabited structures	There are 11 to 15 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	3	
6 to 10 inhabited structures	There are 6 to 10 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	2	
1 to 5 inhabited structures	There are 1 to 5 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	1	
0 inhabited structures	There are no inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	0	
POPULATION NEAR HAZARD	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Population Near Hazard*** classification in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 18

CHE Module: Types of Activities/Structures Data Element Table

Directions: Below are five classifications of activities and/or inhabited structures near the hazard and their descriptions. Review the types of activities that occur and/or structures that are present within two miles of the MRS and annotate the score(s) that correspond with **all** the activities/structure classifications at the MRS.

Note: The term *inhabited structures* is defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Residential, educational, commercial, or subsistence	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with any of the following purposes: residential, educational, child care, critical assets (e.g., hospitals, fire and rescue, police stations, dams), hotels, commercial, shopping centers, playgrounds, community gathering areas, religious sites, or sites used for subsistence hunting, fishing, and gathering.	5	5
Parks and recreational areas	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with parks, nature preserves, or other recreational uses.	4	4
Agricultural, forestry	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with agriculture or forestry.	3	3
Industrial or warehousing	Activities are conducted, or inhabited structures are located up to two miles from the MRS's boundary or within the MRS's boundary, that are associated with industrial activities or warehousing.	2	
No known or recurring activities	There are no known or recurring activities occurring up to two miles from the MRS's boundary or within the MRS's boundary.	1	
TYPES OF ACTIVITIES/STRUCTURES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**5**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Types of Activities/Structures*** classifications in the space below.

The 2004 Census data, aerial photographs, and the 2006 site visit indicates the population within the 2-mile radius is less than 15,365. The population density is 76.4 persons per square mile. There are 10 schools and 3 parks within 2 miles. There are 5,771 housing units and 5,845 households within 2 miles of the FUDS site (2007 SI Report, Section 2.4.3).

Table 19

CHE Module: Ecological and/or Cultural Resources Data Element Table

Directions: Below are four classifications of ecological and/or cultural resources and their descriptions. Review the types of resources present and annotate the score that corresponds with the ecological and/or cultural resource classifications at the MRS.

Note: The terms *ecological resources* and *cultural resources* are defined in Appendix C of the MRSPP Primer (Draft, Dec 2005).

Classification	Description	Possible Score	Score
Ecological and cultural resources present	There are both ecological and cultural resources present on the MRS.	5	
Ecological resources present	There are ecological resources present on the MRS.	3	
Cultural resources present	There are cultural resources present on the MRS.	3	
No ecological or cultural resources present	There are no ecological resources or cultural resources present on the MRS.	0	
ECOLOGICAL AND/OR CULTURAL RESOURCES	**DIRECTIONS:** Record **the single highest score** from above in the box to the right (maximum score = 5).		**0**

DIRECTIONS: Document any MRS-specific data used in selecting the ***Ecological and/or Cultural Resources*** classification in the space below.

The State Historic Preservation Office (SHPO), U.S. Forest Service (USFS), and the Oregon Department of Fish and Wildlife (ODFW) were contacted regarding cultural and natural resources. The SHPO indicated that no potential cultural/archaeological resources were within the currently identified MRS No. 21. The ODFW, Oregon Department of Agriculture, and the U.S. Fish and Wildlife Service were contacted regarding identification of any potentially impacted, threatened, or endangered species at Camp Adair. Two plant species are known to grow in the Camp Adair area. However, the agencies were not concerned with the proposed site activities because of the fact they were minimally invasive (2007 SI Report, Sections 2.4.7, 3.2.1 and 3.2.2). None were identified for this MRS. The MRS is currently a tilled area used for growing crops. No ecologically sensitive areas are within the MRS.

Table 20

Determining the CHE Module Rating

DIRECTIONS:

1. From Tables 11 - 19, record the data element scores in the **Score** boxes to the right.

2. Add the **Score** boxes for each of the three factors and record this number in the **Value** boxes to the right.

3. Add the three **Value** boxes and record this number in the **CHE Module Total** box below.

	Source	Score	Value
CWM Hazard Factor Data Elements			
CWM Configuration	Table 11	12	14
Sources of CWM	Table 12	2	
Accessibility Factor Data Elements			
Location of CWM	Table 13	5	20
Ease of Access	Table 14	10	
Status of Property	Table 15	5	
Receptor Factor Data Elements			
Population Density	Table 16	1	11
Population Near Hazard	Table 17	5	
Types of Activities/Structures	Table 18	5	
Ecological and/or Cultural Resources	Table 19	0	
CHE MODULE TOTAL			**45**

4. Identify the appropriate range for the **CHE Module Total** at right.

5. Identify the **CHE Module Rating** that corresponds to the range selected and record this rating in the **CHE Module Rating** box at the lower right corner of this table.

NOTE: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

CHE Module Total	CHE Module Rating
92 to 100	A
82 to 91	B
71 to 81	C
60 to 70	D
48 to 59	E
38 to 47	F
less than 38	G
Alternative Module Ratings	Evaluation Pending
	No Longer Required
	No Known or Suspected CWM Hazard
CHE MODULE RATING	**F**

Table 21

HHE Module: Groundwater Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's groundwater and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the groundwater, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
		Sum the Ratios	

CHF Scale	CHF Value	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**
100 > CHF >2	**M (Medium)**	
2 > CHF	**L (Low)**	

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the groundwater migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the groundwater is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in groundwater has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the groundwater to a potential point of exposure (possibly due to geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the groundwater receptors at the MRS.

Classification	Description	Value
Identified	There is a threatened water supply well downgradient of the source and the groundwater is a current source of drinking water or source of water for other beneficial uses such as irrigation/agriculture (equivalent to Class I or IIA aquifer).	H
Potential	There is no threatened water supply well downgradient of the source and the groundwater is currently or potentially usable for drinking water, irrigation, or agriculture (equivalent to Class I, IIA, or IIB aquifer).	M
Limited	There is no potentially threatened water supply well downgradient of the source and the groundwater is not considered a potential source of drinking water and is of limited beneficial use (equivalent to Class IIIA or IIIB aquifer, or where perched aquifer exists only).	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Groundwater MC Hazard	**X**

Table 22

HHE Module: Surface Water - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface water, select the box at the bottom of the table.

Note: Use dissolved, rather than total, metals analyses when both are available.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Human Endpoint) MC Hazard	**X**

Table 23

HHE Module: Sediment - Human Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the site's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for human endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		
CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).		

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L
MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L
RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	
Place an "X" in the box to the right if there is no known or suspected Sediment (Human Endpoint) MC Hazard		**X**

Table 24

HHE Module: Surface Water - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface water and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the surface water, select the box at the bottom of the table.

Note: Use either dissolved or total metals analyses.

Contaminant [CAS No.]	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**		
100 > CHF >2	**M (Medium)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface water has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface water to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Water (Ecological Endpoint) MC Hazard	**X**

Table 25

HHE Module: Sediment - Ecological Endpoint Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's sediment and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard for ecological endpoints present in the sediment, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface water migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the sediment is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in sediment has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface water receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to sediment to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Sediment (Ecological Endpoint) MC Hazard	**X**

Table 26

HHE Module: Surface Soil - Data Element Table

Contaminant Hazard Factor (CHF)

Directions: Record the **maximum concentrations** of all contaminants in the MRS's surface soil and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the **ratios** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** by adding the **ratios** for each medium together, including additional contaminants recorded on Table 27. Based on the **CHF**, use the **CHF Scale** to determine and record the **CHF Value**. If there is no known or suspected MC hazard present in the surface soil, select the box at the bottom of the table.

Note: N/A

Contaminant [CAS No.]	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios
		Total from Table 27	
CHF Scale	**CHF Value**	**Sum the Ratios**	
CHF > 100	**H (High)**	**CHF = ∑ ([Max Conc of Contaminant] / [Comparison Value for Contaminant])**	
100 > CHF >2	**M (Medium)**		
2 > CHF	**L (Low)**		

CONTAMINANT HAZARD FACTOR	Directions: Record **the CHF Value** from above in the box to the right (maximum value = H).	

Migratory Pathway Factor

Directions: Annotate the value that corresponds most closely to the surface soil migratory pathway at the MRS.

Classification	Description	Value
Evident	Analytical data or observable evidence indicates that contamination in the surface soil is present at, moving toward, or has moved to a point of exposure.	H
Potential	Contamination in surface soil has moved only slightly beyond the source (i.e. tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	M
Confined	Information indicates a low potential for contaminant migration from the source via the surface soil to a potential point of exposure (possibly due to presence of geological structures or physical controls).	L

MIGRATORY PATHWAY FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Receptor Factor

Directions: Annotate the value that corresponds most closely to the surface soil receptors at the MRS.

Classification	Description	Value
Identified	Identified receptors have access to surface soil to which contamination has moved or can move.	H
Potential	Potential for receptors to have access to surface soil to which contamination has moved or can move.	M
Limited	Little or no potential for receptors to have access to surface soil to which contamination has moved or can move.	L

RECEPTOR FACTOR	Directions: Record **the single highest value** from above in the box to the right (maximum value = H).	

Place an "X" in the box to the right if there is no known or suspected Surface Soil MC Hazard	**X**

Table 27

HHE Module: Supplemental Contaminant Hazard Factor Table

Contaminant Hazard Factor (CHF)

Directions: **Only use this table if there are more than five contaminants present at the MRS.** This is a supplemental table designed to hold information about contaminants that do not fit in the previous tables. Indicate the **media** in which these contaminants are present. Then record all **contaminants**, their **maximum concentrations** and their **comparison values** (from Appendix B, Relative Risk Site Evaluation (RRSE) Primer, Summer 1997 - Revised) in the table below. Calculate and record the **ratio** for each contaminant by dividing the **maximum concentration** by the **comparison value**. Determine the **CHF** for each medium on the appropriate media-specific tables.

Note: For human exposures to groundwater and surface water, use dissolved, rather than total, metals analyses when both are available. Remember not to add ratios from different media.

Media	Contaminant [CAS No.]	Maximum Concentration	Units	Comparison Value	Units	Ratios
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
Surface soil			mg/kg		mg/kg	
					SUBTOTAL FOR SURFACE SOIL	**0**
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
Sediment			mg/kg		mg/kg	
					SUBTOTAL FOR SEDIMENT	**0**
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
Surface water			µg/L		µg/L	
					SUBTOTAL FOR SURFACE WATER	**0**
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
Groundwater			µg/L		µg/L	
					SUBTOTAL FOR GROUNDWATER	**0**

Table 28

Determining the HHE Module Rating

DIRECTIONS:

1. Record the letter values (H, M, L) for the **Contaminant Hazard**, **Migration Pathway**, and **Receptor Factors** for the media (from Tables 21 - 26) in the corresponding boxes below.
2. Record the media's three-letter combinations in the **Three-Letter-Combination** boxes below (three-letter combinations are arranged from Hs to Ms to Ls).
3. Using the reference provided below, determine each medium's rating (A - G) and record the letter in the corresponding **Media Rating** box below.

Medium (Source)	Contaminant Hazard Factor Value	Migratory Pathway Factor Value	Receptor Factor Value	Three-Letter Combination (Hs-Ms-Ls)	Media Rating (A - G)
Table 21 - Groundwater					
Table 22 - Surface Water (Human Endpoint)					
Table 23 - Sediment (Human Endpoint)					
Table 24 - Surface Water (Ecological Endpoint)					
Table 25 - Sediment (Ecological Endpoint)					
Table 26 - Surface Soil					
			HHE MODULE RATING		**No Known or Suspected MC Hazard**

DIRECTIONS (Continued):

4. Select the single highest **Media Rating** (A is the highest; G is the lowest) and enter the letter in the **HHE Module Rating** box below.

HHE Ratings (for reference only)	
HHH	A
HHM	B
HHL	C
HMM	
HML	D
MMM	
HLL	E
MML	
MLL	F
LLL	G

NOTE: An alternative module rating may be assigned when a module letter rating is used when more information is needed to score one or more media, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present at an MRS.

Alternative Module Ratings	
	Evaluation Pending
	No Longer Required
	No Known or Suspected MC Hazard

Table 29

MRS Priority

DIRECTIONS: In the chart below, enter the letter **rating** for each module recorded in Table 10 (EHE), Table 20 (CHE), and Table 28 (HHE). Enter the corresponding numerical **priority** for each module. If information to determine the module rating is not available, choose the appropriate alternative module rating. The MRS priority is the single highest priority; record this number in the **MRS or Alternative Priority** box at the bottom of the table.

NOTE: An MRS assigned Priority 1 has the highest relative priority; an MRS assigned Priority 8 has the lowest relative priority. Only an MRS with CWM known or suspected to be present can be assigned Priority 1; an MRS that has CWM known or suspected to be present cannot be assigned Priority 8.

EHE Rating	Priority	CHE Rating	Priority	HHE Rating	Priority
		A	1		
A	2	B	2	A	2
B	3	C	3	B	3
C	4	D	4	C	4
D	5	E	5	D	5
E	6	F	6	E	6
F	7	G	7	F	7
G	8			G	8
Evaluation Pending		Evaluation Pending		Evaluation Pending	
No Longer Required		No Longer Required		No Longer Required	
No Known or Suspected Explosive Hazard		No Known or Suspected CWM Hazard		No Known or Suspected MC Hazard	

Reference Table 10:		Reference Table 20:		Reference Table 28:	
EHE Module Rating	Priority	CHE Module Rating	Priority	HHE Module Rating	Priority
G	7	F	6	No Known or Suspected MC Hazard	No Known or Suspected MC Hazard

MRS or Alternative Priority	6

Appendix L
Reference Copies

The EDR Radius Atlas™
with GeoCheck®

Camp Adair - North
Camp Adair - North
Monmouth, OR 97361

Inquiry Number: 1575901.1s

December 15, 2005

EDR® Environmental Data Resources Inc

The Standard in Environmental Risk Management Information

440 Wheelers Farms Road
Milford, Connecticut 06461

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

CAMP ADAIR - NORTH
MONMOUTH, OR 97361

COORDINATES

Latitude (North):	44.783700 - 44˚ 47' 1.3''
Longitude (West):	123.295000 - 123˚ 17' 42.0''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	476661.5
UTM Y (Meters):	4958748.0
Elevation:	205 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property:	44123-G3 AIRLIE NORTH, OR
Source:	USGS 7.5 min quad index

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following government records. For more information on this property see page 30 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
USACE CAMP ADAIR AFS REMEDIATION SITE ADAIR VILLAGE CORVALLIS, OR 97330	RCRA-SQG FINDS	OR0000375808
CAMP ADAIR-TANK SITE NO.1 NE CORNER CARR AVE/VANDERBILT AVE ADAIR VILLAGE, OR 97330	LUST	N/A
CAMP ADAIR T10S R4W R5W WM 8M N OF CITY CORVALLIS, OR 97330	CERC-NFRAP	OR0001097161
CAMP ADAIR/ADAIR AF STA CORVALLIS, OR	FUDS	N/A
CAMP ADAIR ARMY BASE (FORMER) CAMP ADAIR RD ADAIR VILLAGE, OR 97330	SHWS - ECSI FINDS	110014168845

EXECUTIVE SUMMARY

FORMER CAMP ADAIR CAMP ADAIR ADAIR VILLAGE, OR 97330	FINDS	110014070931
CAMP ADAIR-TANK SITE NO.1 NE CORNER CARR AVE/VANDERBILT AVE ADAIR VILLAGE, OR 97330	FINDS	110014304403

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available "reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

FEDERAL RECORDS

NPL ..... National Priority List
Proposed NPL ..... Proposed National Priority List Sites
Delisted NPL ..... National Priority List Deletions
NPL Liens ..... Federal Superfund Liens
CERCLIS ..... Comprehensive Environmental Response, Compensation, and Liability Information System
CORRACTS ..... Corrective Action Report
RCRA-TSDF ..... Resource Conservation and Recovery Act Information
RCRA-LQG ..... Resource Conservation and Recovery Act Information
ERNS ..... Emergency Response Notification System
HMIRS ..... Hazardous Materials Information Reporting System
US ENG CONTROLS ..... Engineering Controls Sites List
US INST CONTROL ..... Sites with Institutional Controls
US BROWNFIELDS ..... A Listing of Brownfields Sites
CONSENT ..... Superfund (CERCLA) Consent Decrees
ROD ..... Records Of Decision
UMTRA ..... Uranium Mill Tailings Sites
ODI ..... Open Dump Inventory
TRIS ..... Toxic Chemical Release Inventory System
TSCA ..... Toxic Substances Control Act
FTTS INSP ..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
SSTS ..... Section 7 Tracking Systems
PADS ..... PCB Activity Database System
MLTS ..... Material Licensing Tracking System
MINES ..... Mines Master Index File
RAATS ..... RCRA Administrative Action Tracking System

STATE AND LOCAL RECORDS

OR CRL ..... Confirmed Release List and Inventory
SWF/LF ..... Solid Waste Facilities List
UIC ..... Underground Injection Control Program Database

EXECUTIVE SUMMARY

HIST LF ..... Old Closed SW Disposal Sites
AOC COL ..... Columbia Slough
OR HAZMAT ..... Hazmat/Incidents
ENG CONTROLS ..... Engineering Controls Recorded at ESCI Sites
INST CONTROL ..... Institutional Controls Recorded at ESCI Sites
VCS ..... Voluntary Cleanup Program Sites
DRYCLEANERS ..... Drycleaning Facilities
Brownfields ..... Brownfields Projects
CDL ..... Uninhabitable Drug Lab Properties

TRIBAL RECORDS

INDIAN RESERV ..... Indian Reservations
INDIAN LUST ..... Leaking Underground Storage Tanks on Indian Land
INDIAN UST ..... Underground Storage Tanks on Indian Land

EDR PROPRIETARY RECORDS

Coal Gas ..... Coal Gas

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

FEDERAL RECORDS

RCRAInfo:RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System(RCRIS). The database includes selective information on sites which generate, transport, store , treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month Large quantity generators generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator offsite to a facil

A review of the RCRA-SQG list, as provided by EDR, and dated 10/14/2005 has revealed that there are 2 RCRA-SQG sites within approximately 5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir		Map ID	Page
DEPARTMENT OF VETERANS AFFAIRS	***14765 FISHBACK RD***	***>2***	***NW***	***15***	***40***

Lower Elevation	Address	Dist / Dir		Map ID	Page
MOUNTAIN VIEW SEED FARMS INC	***12680 S PACIFIC HWY W***	***>2***	***ESE***	***E24***	***50***

EXECUTIVE SUMMARY

Federal Lands: Consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

A review of the DOD list, as provided by EDR, and dated 10/01/2003 has revealed that there is 1 DOD site within approximately 5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir		Map ID	Page
CAMP ADAIR MILITARY RESERVATIO		>2	S	0	37

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 09/29/2005 has revealed that there are 9 FINDS sites within approximately 5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir		Map ID	Page
KILLEN RESIDENCE	12295 ELKINS ROAD	1 - 2	NNE	B9	37
POLK COUNTY FIRE DISTRICT NO.	14775 AIRLIE ROAD	>2	W	11	38
DEPARTMENT OF VETERANS AFFAIRS	***14765 FISHBACK RD***	***>2***	***NW***	***15***	***40***
CENTANNI, J HOT	13005 FISHBACK ROAD	>2	N	D19	42
RICHARDS STORE	13160 S PACIFIC HWY W S	>2	SE	F28	57
HOWARD RASMUSSEN	13340 S PACIFIC HWY W	>2	SE	G29	57
US ARMY NG CORVALLIS CAMP ADAI	***39434 RIFLE RANGE RD***	***>2***	***SSE***	***H32***	***64***

Lower Elevation	Address	Dist / Dir		Map ID	Page
CS SEEDS	12680 S PACIFIC HWY W	>2	ESE	E23	49
MOUNTAIN VIEW SEED FARMS INC	***12680 S PACIFIC HWY W***	***>2***	***ESE***	***E24***	***50***

STATE AND LOCAL RECORDS

ECSI: The Environmental Cleanup Site Information System records information about sites in Oregon that may be of environmental interest. The data come from the Department of Environmental Quality.

A review of the SHWS - ECSI list, as provided by EDR, has revealed that there are 2 SHWS - ECSI sites within approximately 5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir		Map ID	Page
CS SEEDS	12680 S PACIFIC HWY	>2	ESE	E22	45
US ARMY NG CORVALLIS CAMP ADAI	***39434 RIFLE RANGE RD***	***>2***	***SSE***	***H32***	***64***

EXECUTIVE SUMMARY

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Environmental Quality's LUST Database List.

A review of the LUST list, as provided by EDR, and dated 07/14/2005 has revealed that there are 5 LUST sites within approximately 5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir		Map ID	Page
KILLEN RESIDENCE	12295 ELKINS ROAD	1 - 2	NNE	B8	37
GENETICS OUTPLANTING FIELD TES	ZUMWALT RD	>2	N	C12	38
CENTANNI, J HOT	13005 FISHBACK ROAD	>2	N	D20	42
RICHARDS STORE	13160 S PACIFIC HWY WES	>2	SE	F27	57
HOWARD RASMUSSEN	***13340 S PACIFIC HWY W***	***>2***	***SE***	***G30***	***58***

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Environmental Quality's UST List on Disk.

A review of the UST list, as provided by EDR, and dated 07/21/2005 has revealed that there are 4 UST sites within approximately 5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir		Map ID	Page
RAINBOW HILL RANCH	14080 AIRLIE RD	>2	WSW	10	38
GENETICS OUTPLANTING FIELD TES	ZUMWALT RD	>2	N	C13	38
BUCKOVIC, WARREN	12340 AIRLIE RD	>2	S	16	40
HOWARD RASMUSSEN	***13340 S PACIFIC HWY W***	***>2***	***SE***	***G30***	***58***

AST: The Aboveground Storage Tank database contains registered ASTs. The data comes from the list of ASTs reported to the Office of State Fire Marshal.

A review of the AST list, as provided by EDR, and dated 08/01/2005 has revealed that there are 5 AST sites within approximately 5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir		Map ID	Page
TRTL ENTERPRISES LLC	***13200 MAXFIELD CREEK RD***	***>2***	***SW***	***18***	***41***
AIRLIE WINERY	***15305 DUNN FOREST RD***	***>2***	***SSW***	***21***	***42***
AGRIWELD INC	***13000 S PACIFIC HWY W***	***>2***	***SE***	***F25***	***50***
HIVELY POTTERY	***13005 S PACIFIC HWY S***	***>2***	***SE***	***F26***	***56***
ORARNG	***39432 RIFLE RANGE RD***	***>2***	***SSE***	***H33***	***67***

OR SPILLS: Department of Environmental Spill Data.

A review of the OR SPILLS list, as provided by EDR, and dated 09/13/2005 has revealed that there is 1 OR SPILLS site within approximately 5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir		Map ID	Page
Not reported	12955 MAXFIELD CREEK RD	>2	SW	17	40

EXECUTIVE SUMMARY

OR HSIS: Hazardous Substance Information Survey

A review of the HSIS list, as provided by EDR, and dated 08/01/2005 has revealed that there are 8 HSIS sites within approximately 5 miles of the target property.

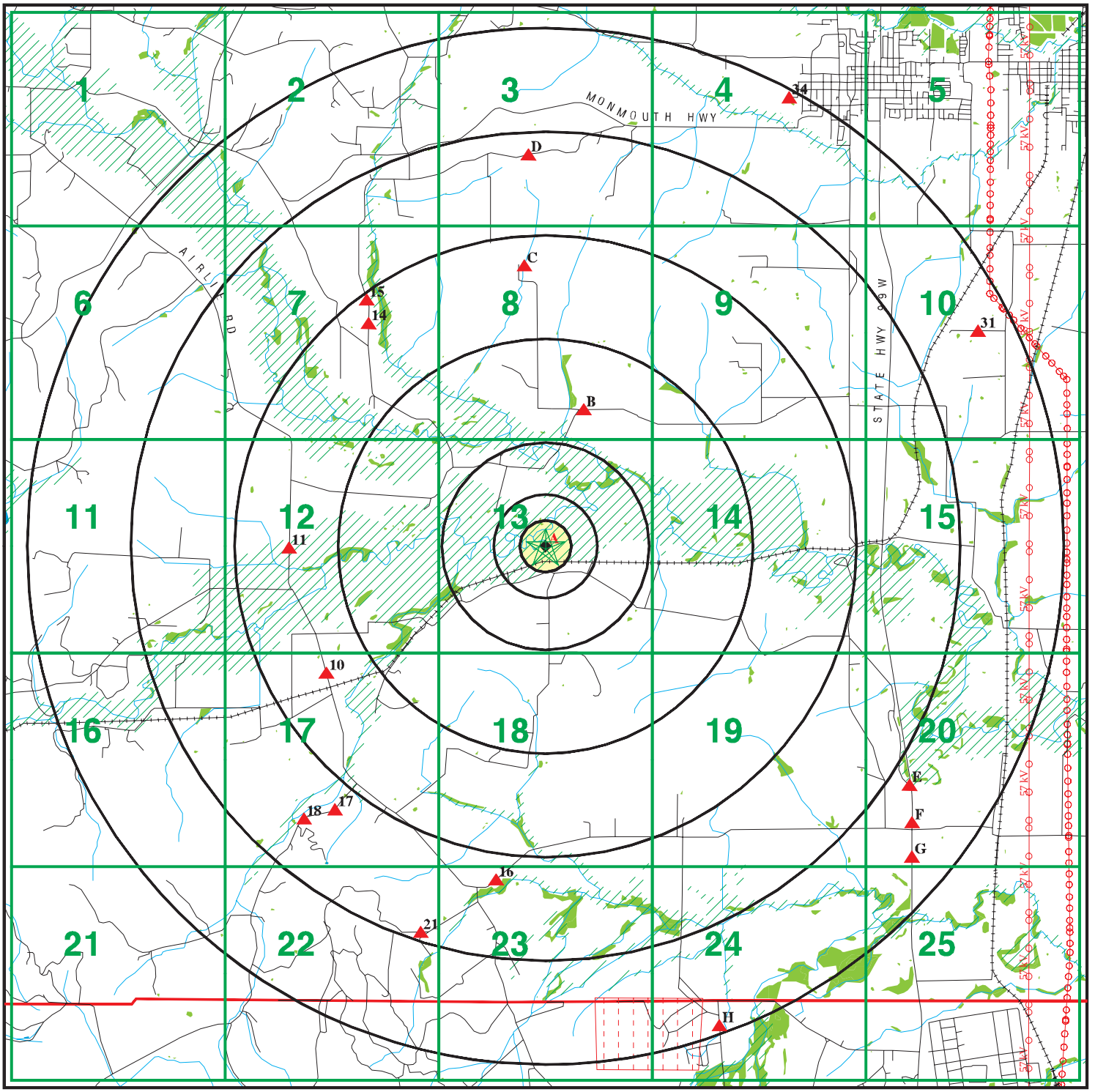
Equal/Higher Elevation	Address	Dist / Dir		Map ID	Page
LUCKIAMUTE DOMESTIC WATER COOP	14885 FISHBACK RD	>2	NW	14	39
TRTL ENTERPRISES LLC	***13200 MAXFIELD CREEK RD***	***>2***	***SW***	***18***	***41***
AIRLIE WINERY	***15305 DUNN FOREST RD***	***>2***	***SSW***	***21***	***42***
AGRIWELD INC	***13000 S PACIFIC HWY W***	***>2***	***SE***	***F25***	***50***
HIVELY POTTERY	***13005 S PACIFIC HWY S***	***>2***	***SE***	***F26***	***56***
ROOF TOPS INC	8840 FRUIT FARM RD	>2	ENE	31	58
ORARNG	***39432 RIFLE RANGE RD***	***>2***	***SSE***	***H33***	***67***
NEXTEL WEST CORPORATION	990 CUPIDS KNOLL RD	>2	NNE	34	71

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

Site Name	Database(s)
DUPONT AGRICULTURAL PRODUCTS	FINDS, FTTS INSP
LEWISBURG AREAWIDE GASOLINE RELEASE	SHWS - ECSI, FINDS
SOUTHERN PACIFIC RR - INDEPENDENCE	SHWS - ECSI, FINDS
INDEPENDENCE - SOUTH WELLFIELD	SHWS - ECSI
COFFIN BUTTE REGIONAL LDFL	RCRA-SQG, FINDS, CERC-NFRAP
VERIZON WIRELESS	HSIS, AST
OAK KNOLL GOLF COURSE	HSIS, AST
INDEPENDENCE CITY OF	HSIS, AST
R & D CONSTRUCTION INC	HSIS, AST
WILLAMETTE WINDOW WASHING	HSIS, AST
MONMOUTH CITY OF	HSIS, AST
OWENS FARM	FINDS, LUST
TRILLIUM FAMILY SERVICES	LUST
CHEVRON #9035	LUST
UNOCAL #3975	LUST
SCREEN PLANT	UST
CONOCOPHILLIPS COMPANY - 253975	UST
CHEVRON USA INC #99035	UST
BOISE CASCADE REGION OFFICE	UST
BOISE CASCADE CORP CORVALLIS	RCRA-SQG
USWCOM ADAIR CO (340)	RCRA-SQG
1555 MONMOUTH STREET	RCRA-SQG
ADAIR VILLAGE	FINDS
ADAIR VILLAGE, CITY OF	FINDS
INDEPENDENCE - SOUTH WELLFIELD	FINDS
HWY 20 @ H P CO GATE	OR HAZMAT
HWY 20 MP 1.5	OR HAZMAT
HWY 344 PEORIA RD	OR HAZMAT
650 NW 4TH ST / HWY 99W	OR HAZMAT
4800 BLK NE HWY 20	OR HAZMAT
COLORADO LAKE DR / HWY 34	OR HAZMAT
4250 NE HWY 20	OR HAZMAT
RYLS LN 3/4 MI W IND HWY	OR HAZMAT
INTERSECTION OF S PAC HWY / PARKER	OR HAZMAT
11000 BLOCK AIRLIE RD	OR HAZMAT
1/8 MILE E OF HWY 99W ON SUVER RD	OR HAZMAT
PARKER RD / HWY 99	OR HAZMAT
ADAIR VILLAGE CITY OF	HSIS
HAM-MOCK & ASSOCIATES	HSIS
BEAVER PLUMBING & HEATING INC	HSIS
GOLF CITY PAR 3	HSIS
PACIFIC HWY AUTO CARE LLC	HSIS
DAVISON AUTO PARTS INC	HSIS

OVERVIEW MAP - 1575901.1s - Shaw Env. and Infrastructure



0 1 1/4 2 1/2 5 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

TARGET PROPERTY:	Camp Adair - North	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - North	CONTACT:	Jennifer Lillis
CITY/STATE/ZIP:	Monmouth OR 97361	INQUIRY #:	1575901.1s
LAT/LONG:	44.7837 / 123.2950	DATE:	December 15, 2005 3:21 pm

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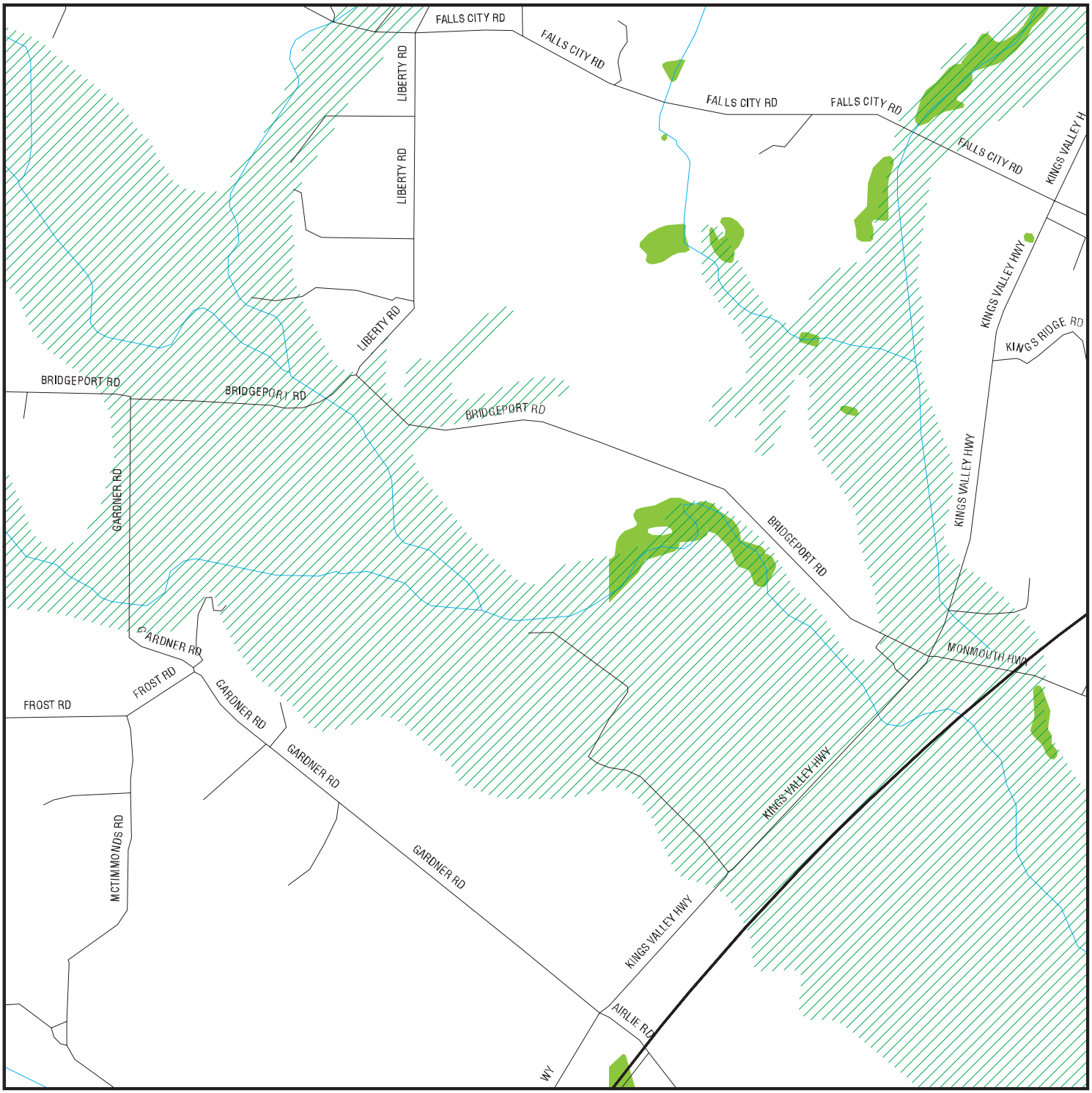
DETAIL MAP 1 of 25 - 1575901.1s



0 1/4 1/2 1 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

TARGET PROPERTY:	Camp Adair - North	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - North	CONTACT:	Jennifer Lillis
CITY/STATE/ZIP:	Monmouth OR 97361	INQUIRY #:	1575901.1s
LAT/LONG:	44.7837 / 123.2950	DATE:	December 15, 2005 3:21 pm

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DETAIL MAP 2 of 25 - 1575901.1s

0 1/4 1/2 1 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

TARGET PROPERTY:	Camp Adair - North	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - North	CONTACT:	Jennifer Lillis
CITY/STATE/ZIP:	Monmouth OR 97361	INQUIRY #:	1575901.1s
LAT/LONG:	44.7837 / 123.2950	DATE:	December 15, 2005 3:21 pm

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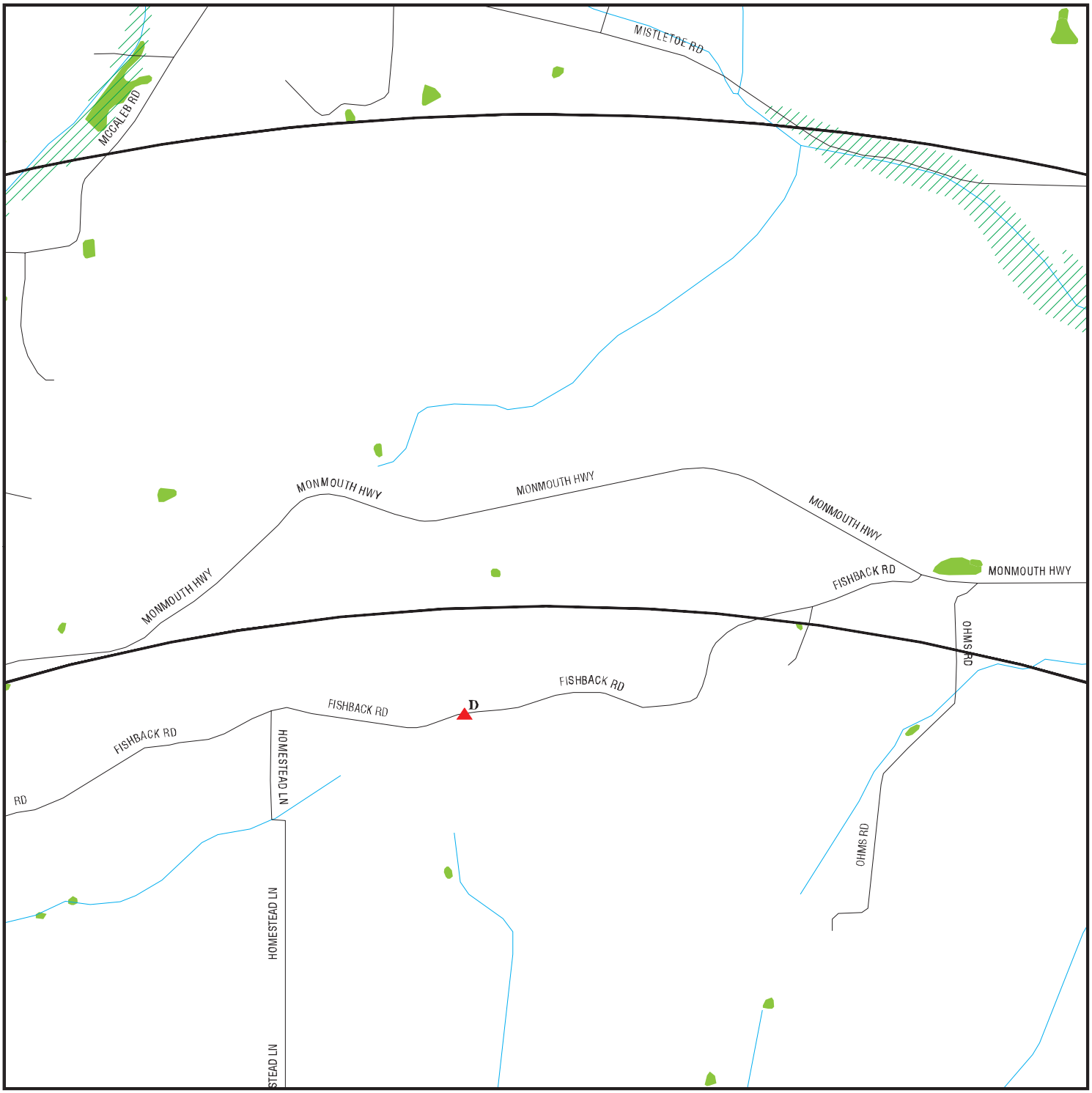
DETAIL MAP 3 of 25 - 1575901.1s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites

0 1/4 1/2 1 Miles

- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

TARGET PROPERTY:	Camp Adair - North	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - North	CONTACT:	Jennifer Lillis
CITY/STATE/ZIP:	Monmouth OR 97361	INQUIRY #:	1575901.1s
LAT/LONG:	44.7837 / 123.2950	DATE:	December 15, 2005 3:21 pm

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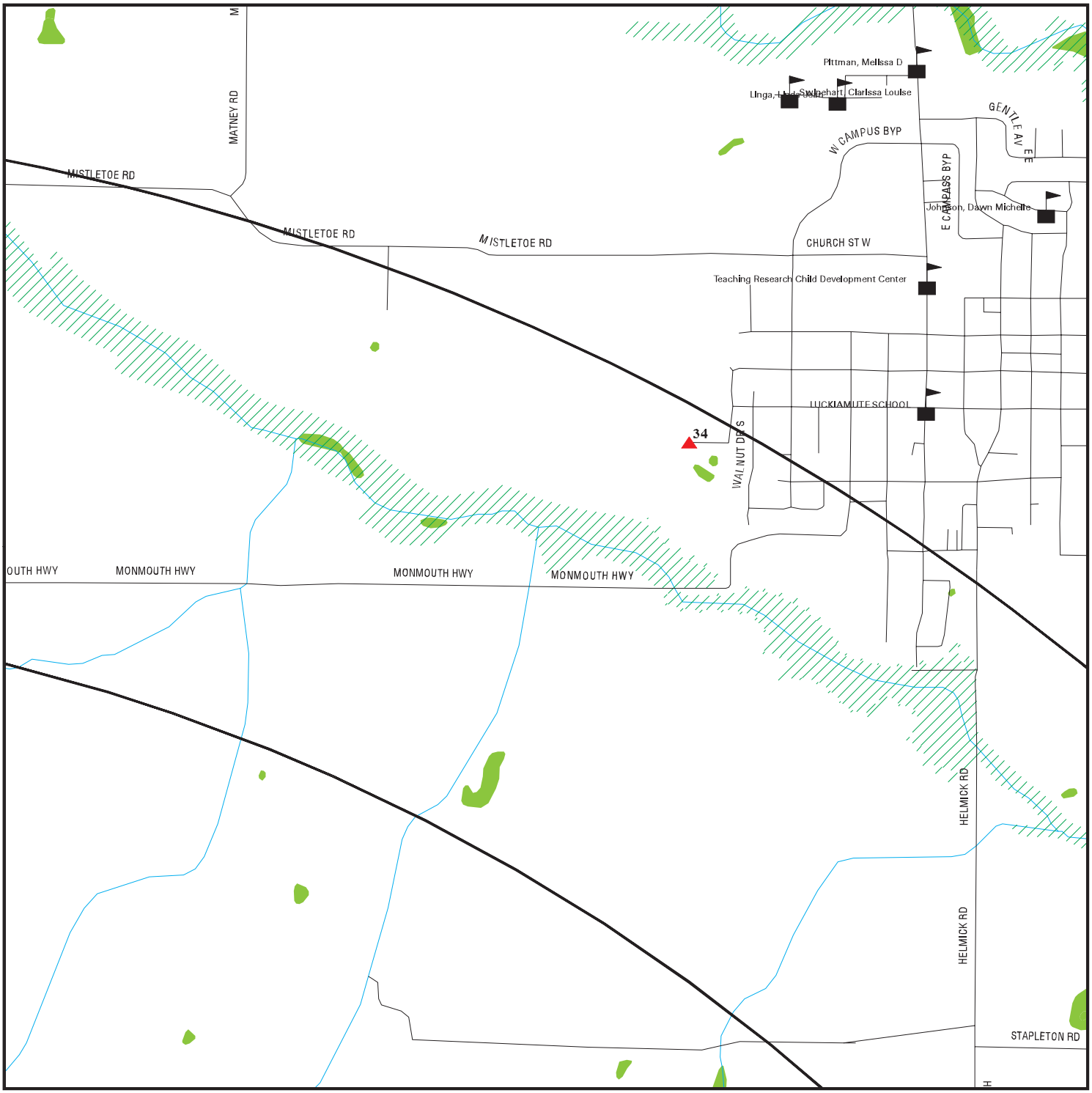
DETAIL MAP 4 of 25 - 1575901.1s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites

0 1/4 1/2 1 Miles

- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

TARGET PROPERTY:	Camp Adair - North	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - North	CONTACT:	Jennifer Lillis
CITY/STATE/ZIP:	Monmouth OR 97361	INQUIRY #:	1575901.1s
LAT/LONG:	44.7837 / 123.2950	DATE:	December 15, 2005 3:21 pm

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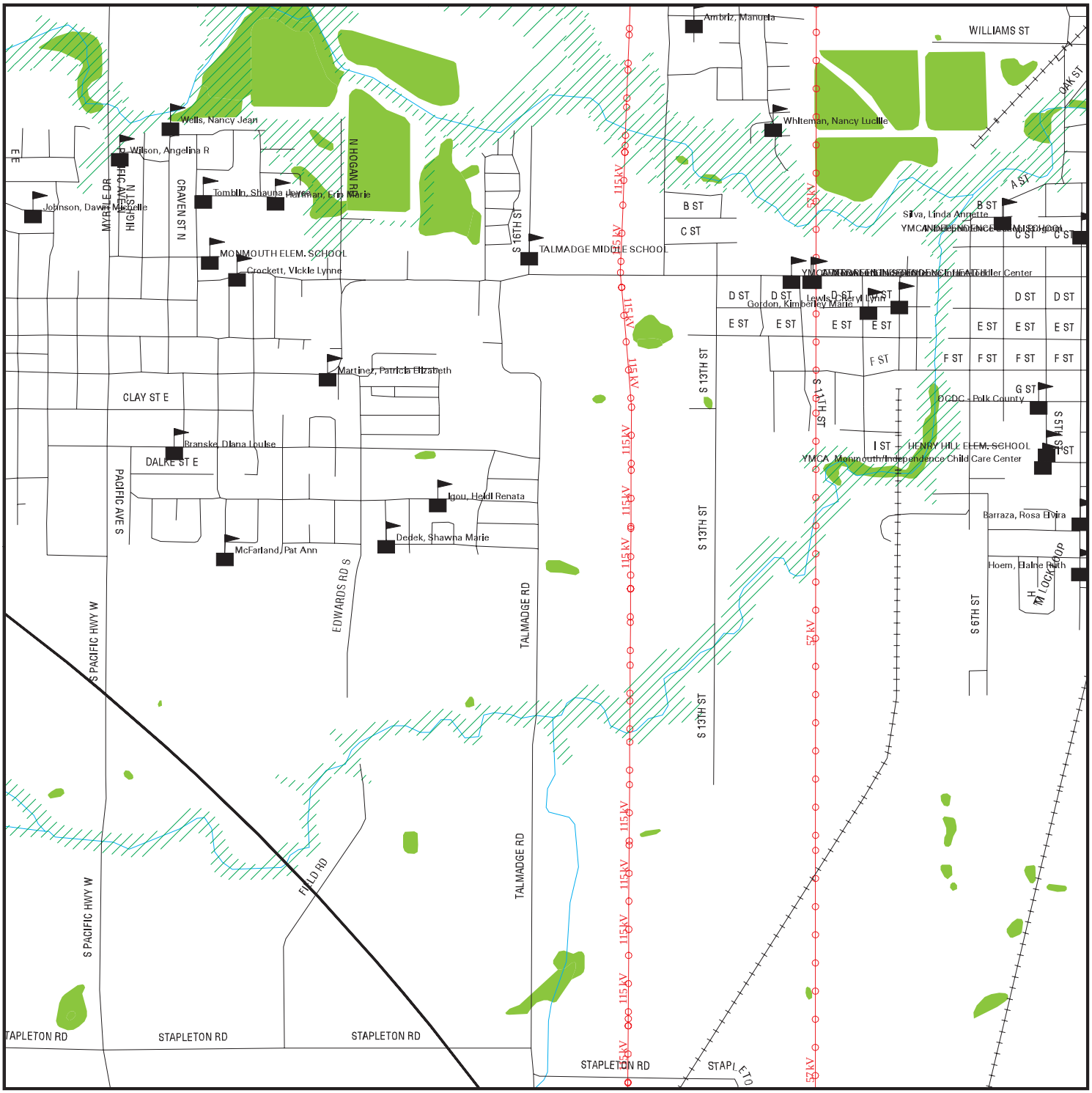
DETAIL MAP 5 of 25 - 1575901.1s



0 1/4 1/2 1 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

TARGET PROPERTY:	Camp Adair - North	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - North	CONTACT:	Jennifer Lillis
CITY/STATE/ZIP:	Monmouth OR 97361	INQUIRY #:	1575901.1s
LAT/LONG:	44.7837 / 123.2950	DATE:	December 15, 2005 3:21 pm

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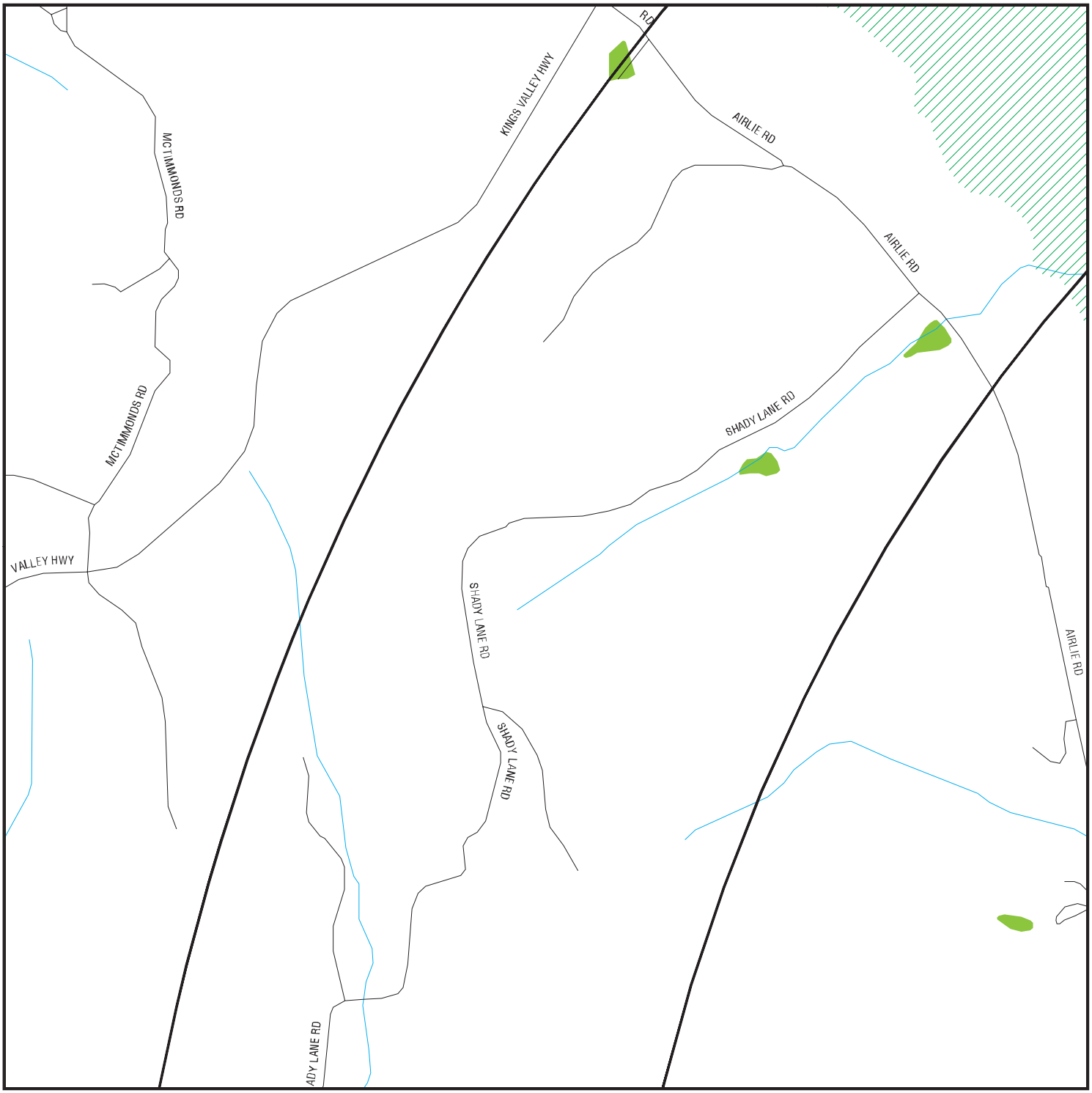
DETAIL MAP 6 of 25 - 1575901.1s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

0 1/4 1/2 1 Miles

N

TARGET PROPERTY:	Camp Adair - North	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - North	CONTACT:	Jennifer Lillis
CITY/STATE/ZIP:	Monmouth OR 97361	INQUIRY #:	1575901.1s
LAT/LONG:	44.7837 / 123.2950	DATE:	December 15, 2005 3:21 pm

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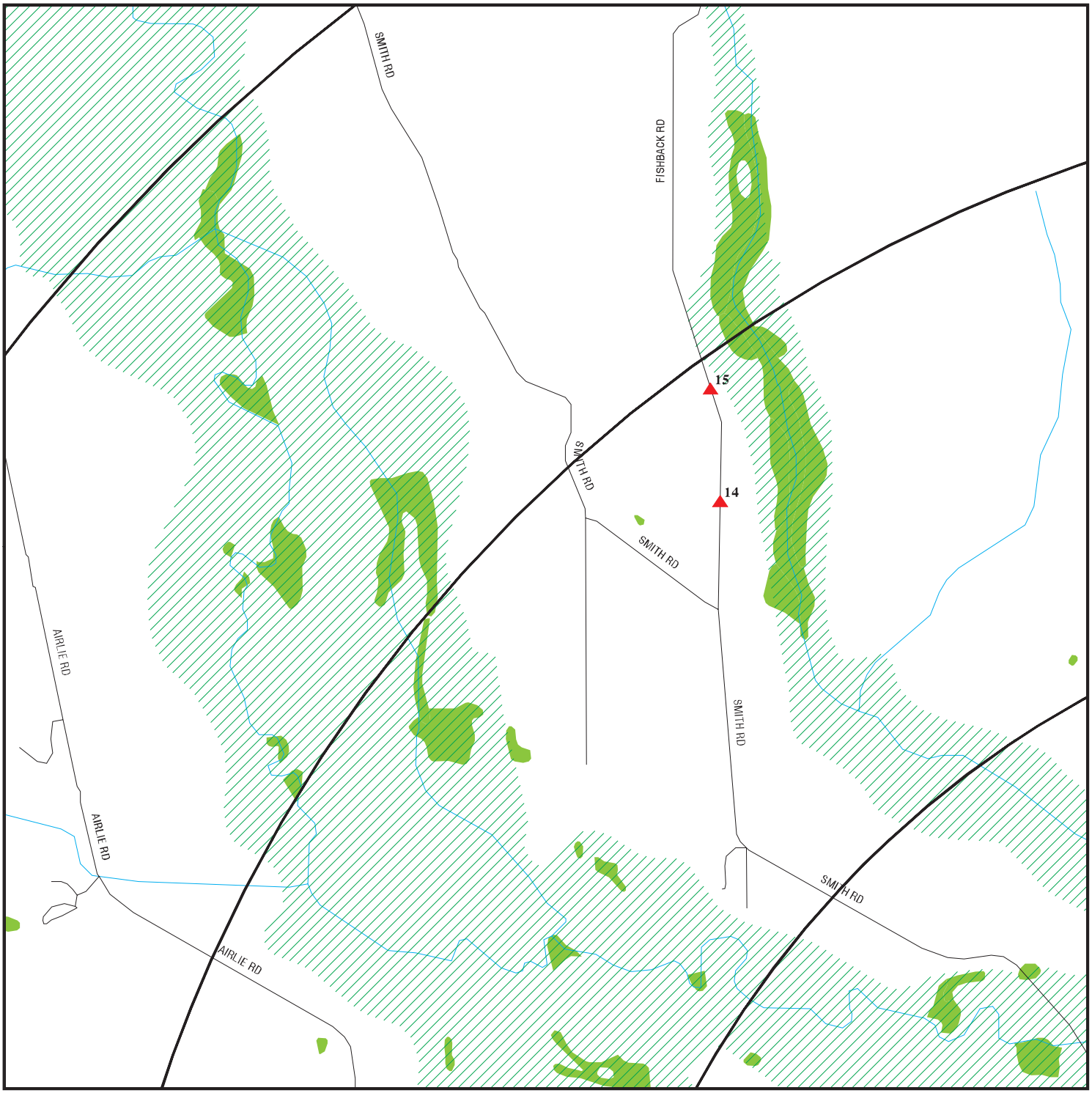
DETAIL MAP 7 of 25 - 1575901.1s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites

0 1/4 1/2 1 Miles

- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

N

TARGET PROPERTY:	Camp Adair - North	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - North	CONTACT:	Jennifer Lillis
CITY/STATE/ZIP:	Monmouth OR 97361	INQUIRY #:	1575901.1s
LAT/LONG:	44.7837 / 123.2950	DATE:	December 15, 2005 3:23 pm

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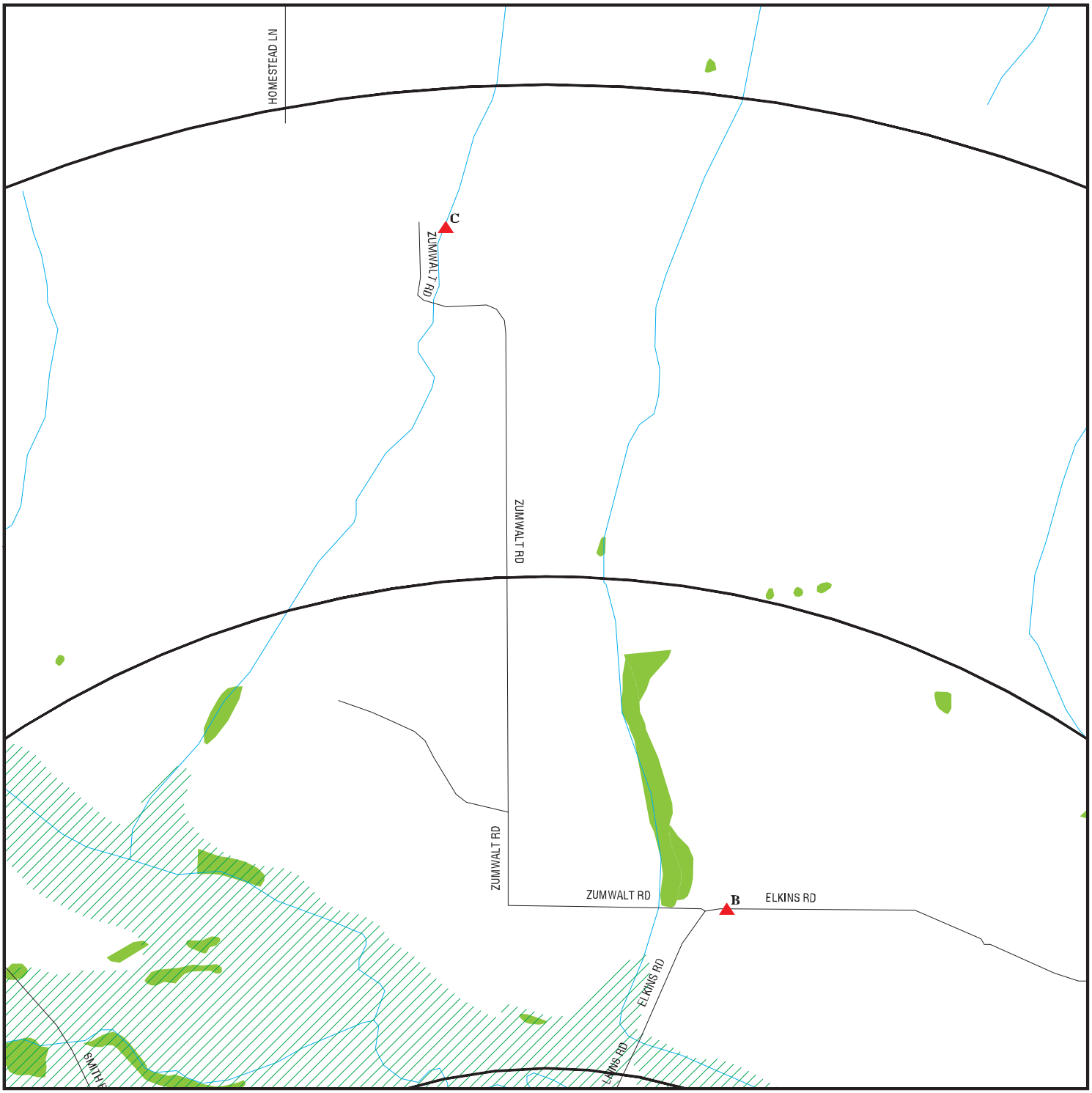
DETAIL MAP 8 of 25 - 1575901.1s



0 1/4 1/2 1 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

TARGET PROPERTY:	Camp Adair - North	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - North	CONTACT:	Jennifer Lillis
CITY/STATE/ZIP:	Monmouth OR 97361	INQUIRY #:	1575901.1s
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DETAIL MAP 9 of 25 - 1575901.1s

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites

0 1/4 1/2 1 Miles

- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

TARGET PROPERTY:	Camp Adair - North	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - North	CONTACT:	Jennifer Lillis
CITY/STATE/ZIP:	Monmouth OR 97361	INQUIRY #:	1575901.1s
LAT/LONG:	44.7837 / 123.2950	DATE:	December 15, 2005 3:23 pm

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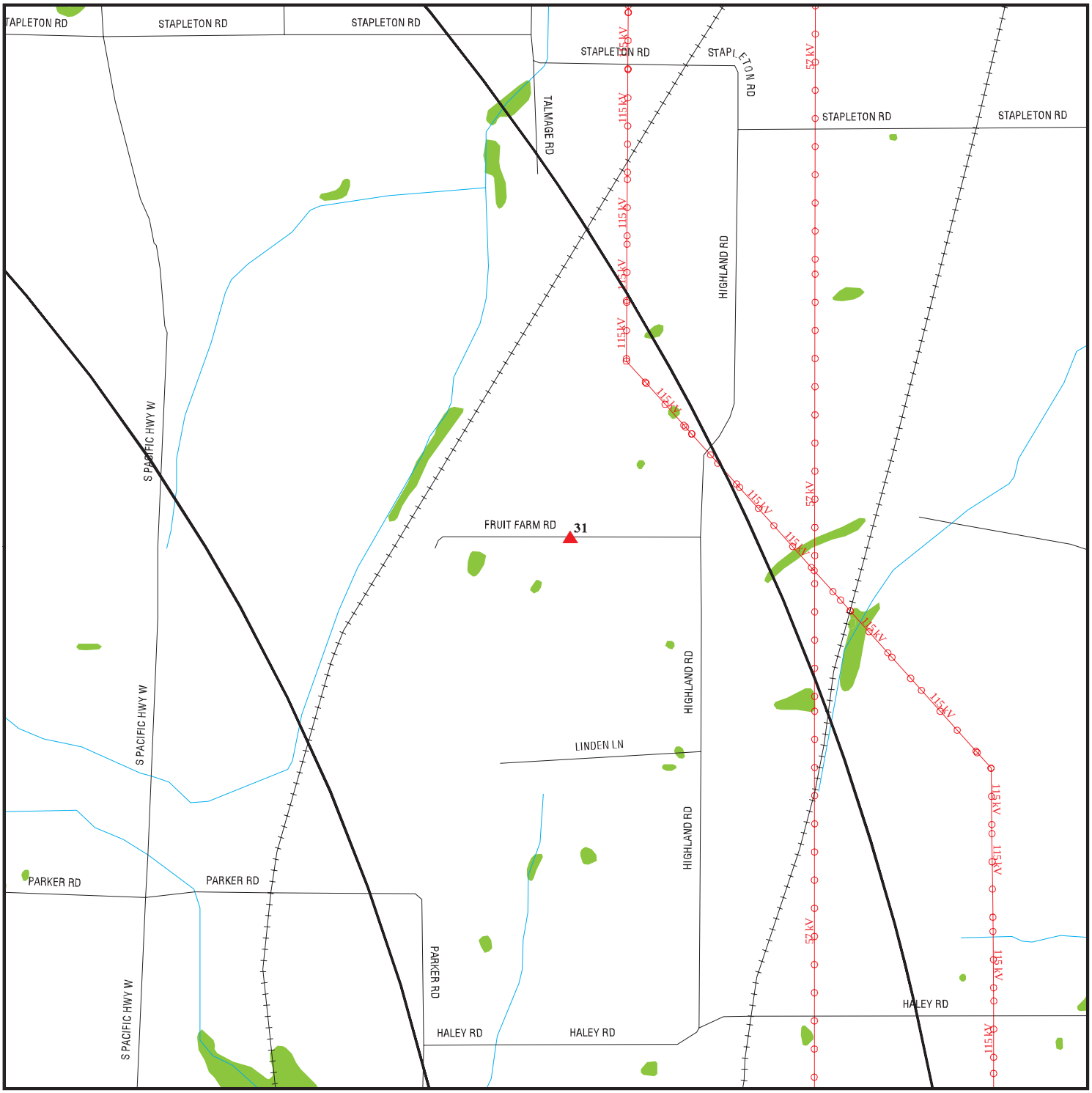
DETAIL MAP 10 of 25 - 1575901.1s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites

0 1/4 1/2 1 Miles

- Indian Reservations BIA
- County Boundary
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

TARGET PROPERTY:	Camp Adair - North	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - North	CONTACT:	Jennifer Lillis
CITY/STATE/ZIP:	Monmouth OR 97361	INQUIRY #:	1575901.1s
LAT/LONG:	44.7837 / 123.2950	DATE:	December 15, 2005 3:22 pm

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DETAIL MAP 11 of 25 - 1575901.1s

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites

0 1/4 1/2 1 Miles

- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

TARGET PROPERTY:	Camp Adair - North	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - North	CONTACT:	Jennifer Lillis
CITY/STATE/ZIP:	Monmouth OR 97361	INQUIRY #:	1575901.1s
LAT/LONG:	44.7837 / 123.2950	DATE:	December 15, 2005 3:22 pm

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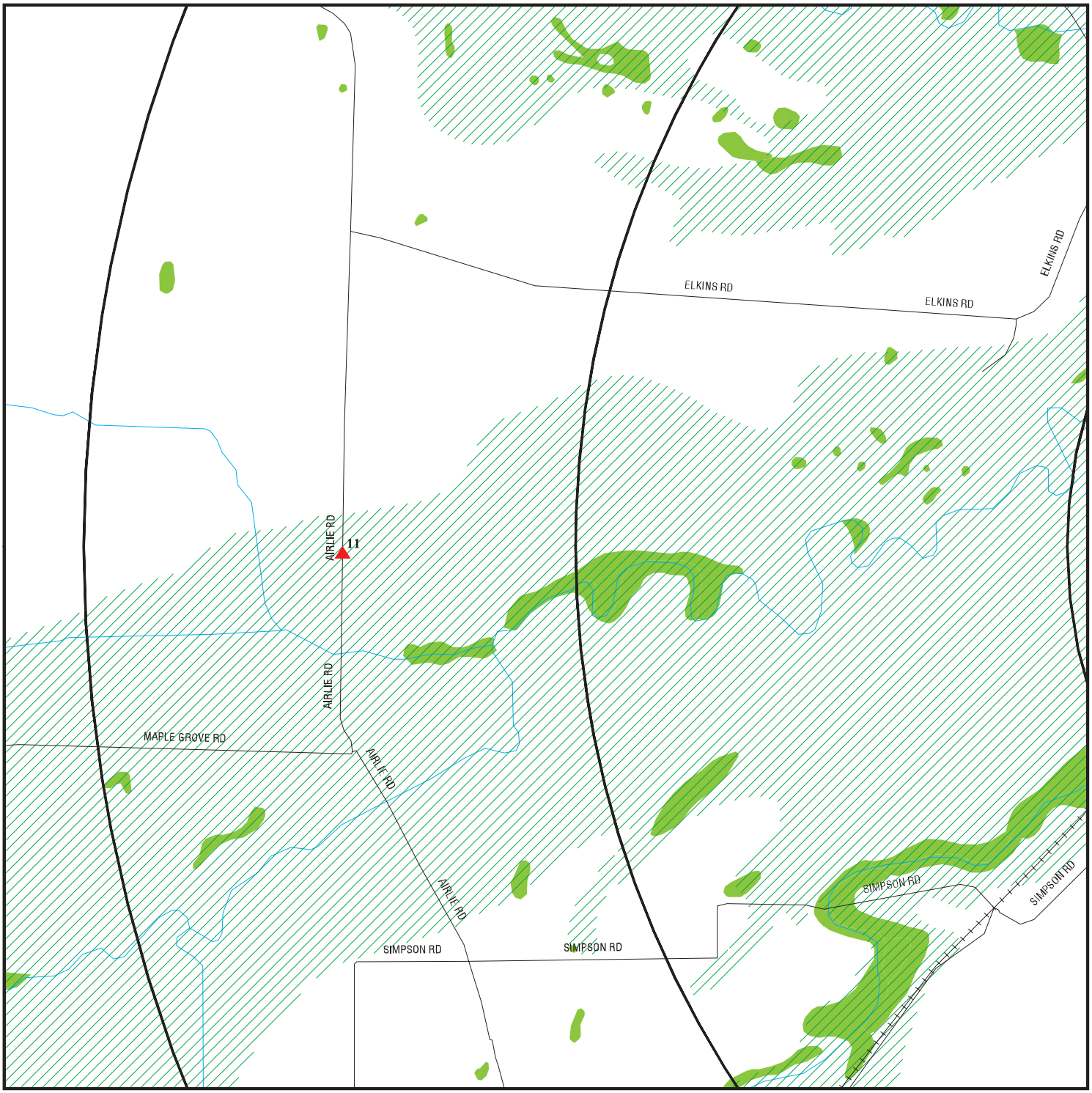
DETAIL MAP 12 of 25 - 1575901.1s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites

0 1/4 1/2 1 Miles

- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

TARGET PROPERTY:	Camp Adair - North	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - North	CONTACT:	Jennifer Lillis
CITY/STATE/ZIP:	Monmouth OR 97361	INQUIRY #:	1575901.1s
LAT/LONG:	44.7837 / 123.2950	DATE:	December 15, 2005 3:22 pm

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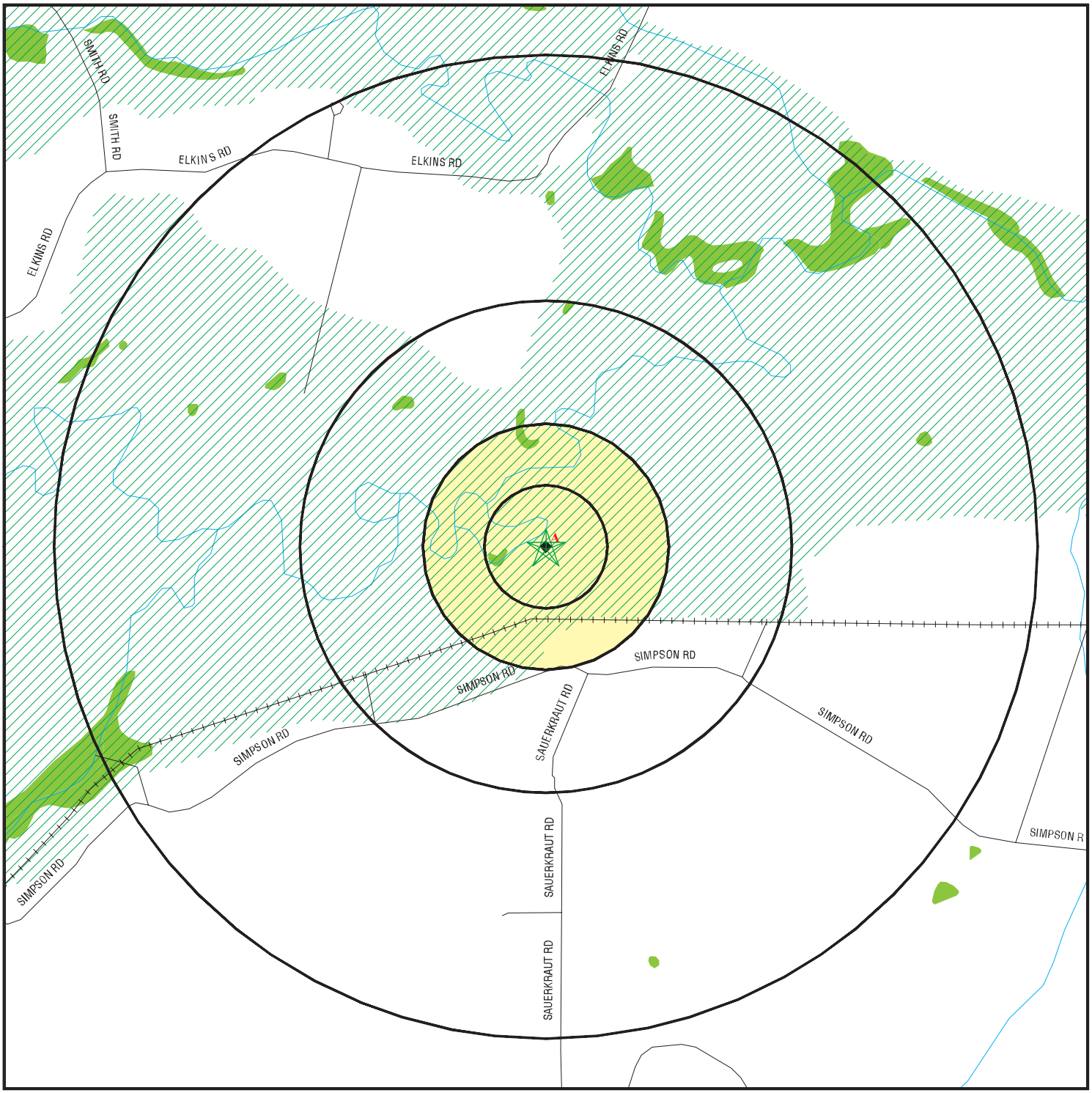
DETAIL MAP 13 of 25 - 1575901.1s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

0 1/4 1/2 1 Miles

TARGET PROPERTY:	Camp Adair - North	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - North	CONTACT:	Jennifer Lillis
CITY/STATE/ZIP:	Monmouth OR 97361	INQUIRY #:	1575901.1s
LAT/LONG:	44.7837 / 123.2950	DATE:	December 15, 2005 3:23 pm

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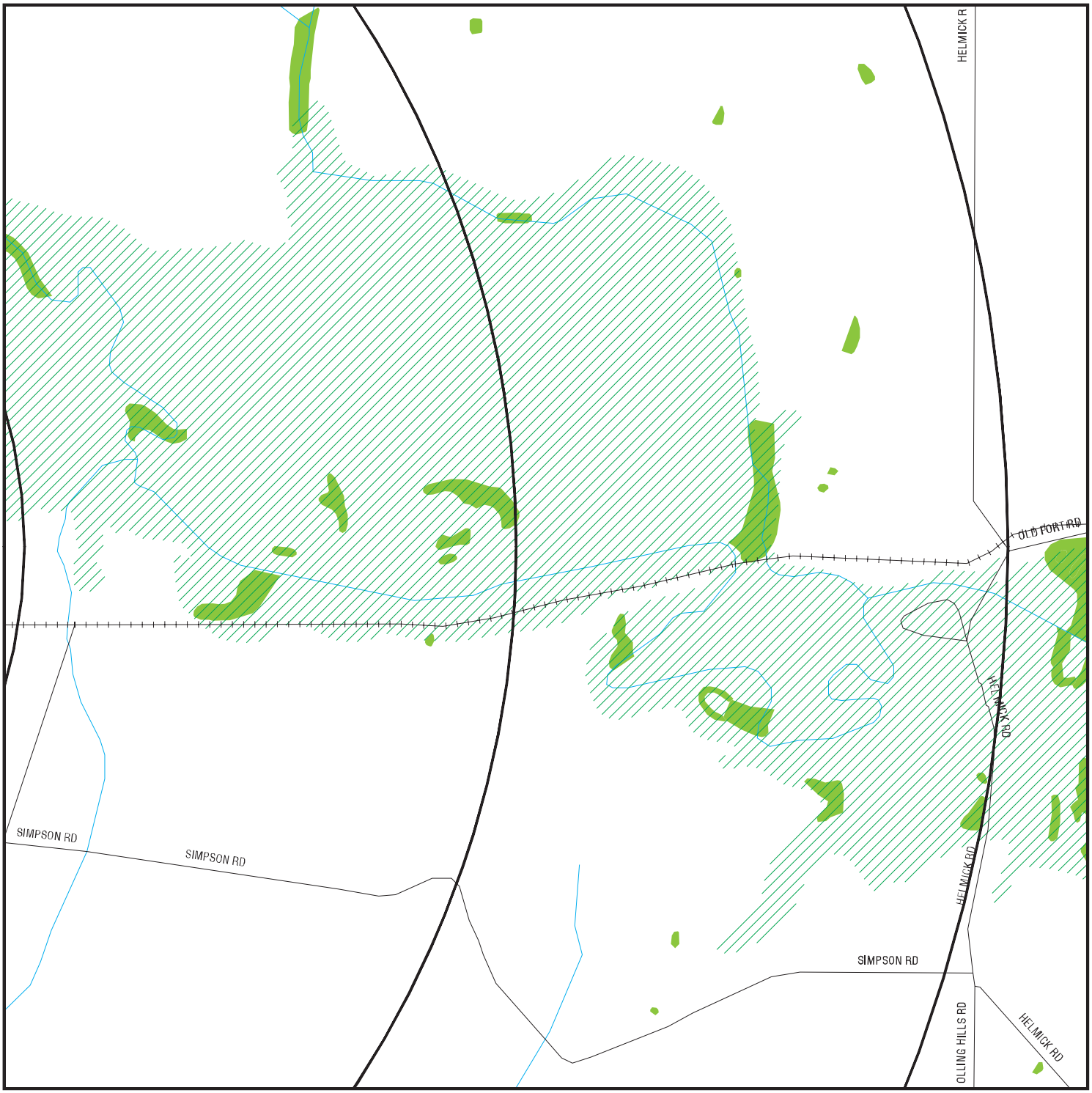
DETAIL MAP 14 of 25 - 1575901.1s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites

0 1/4 1/2 1 Miles

- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

N

TARGET PROPERTY:	Camp Adair - North	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - North	CONTACT:	Jennifer Lillis
CITY/STATE/ZIP:	Monmouth OR 97361	INQUIRY #:	1575901.1s
LAT/LONG:	44.7837 / 123.2950	DATE:	December 15, 2005 3:22 pm

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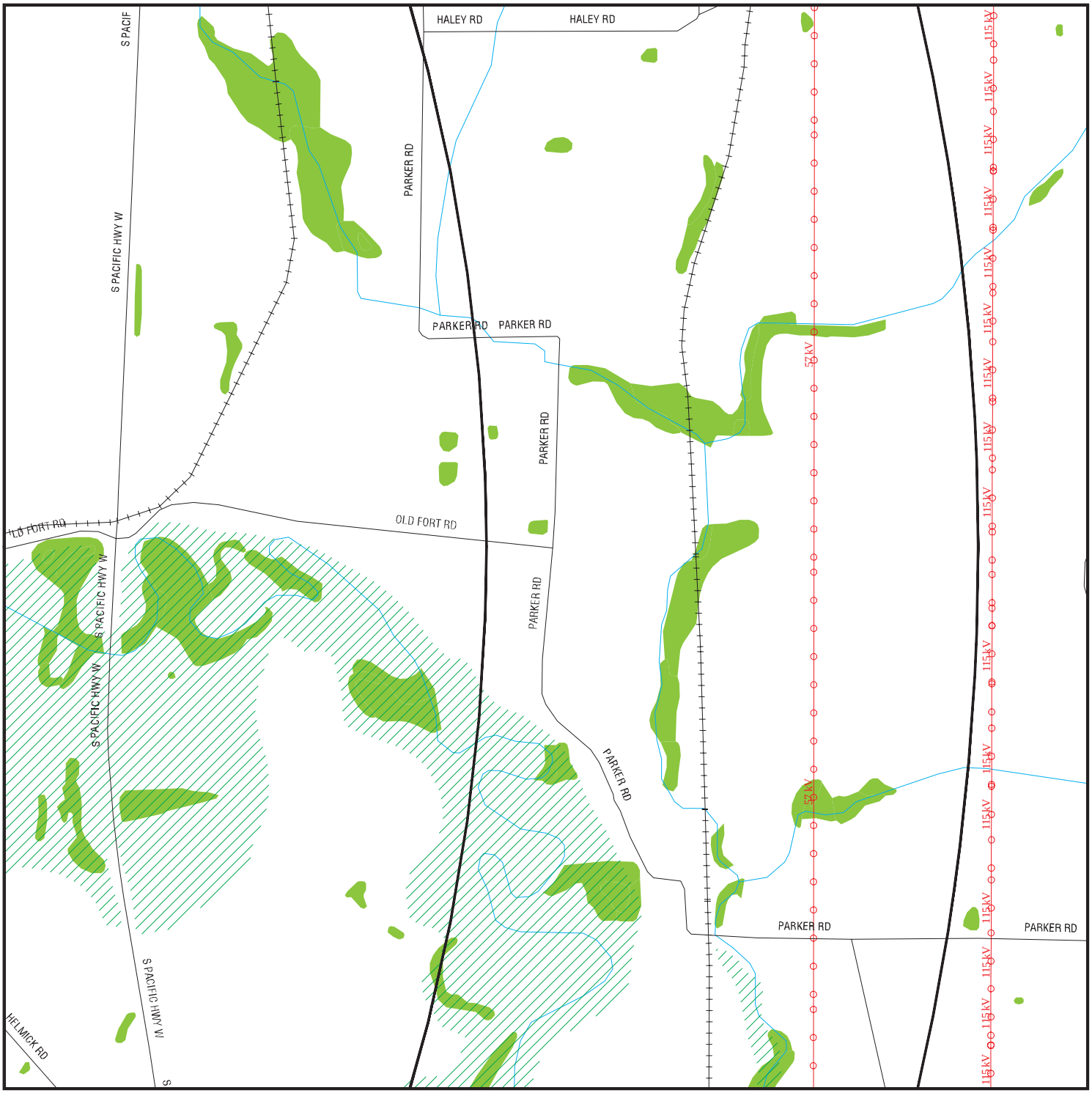
DETAIL MAP 15 of 25 - 1575901.1s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites

0 1/4 1/2 1 Miles

- Indian Reservations BIA
- County Boundary
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

TARGET PROPERTY:	Camp Adair - North	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - North	CONTACT:	Jennifer Lillis
CITY/STATE/ZIP:	Monmouth OR 97361	INQUIRY #:	1575901.1s
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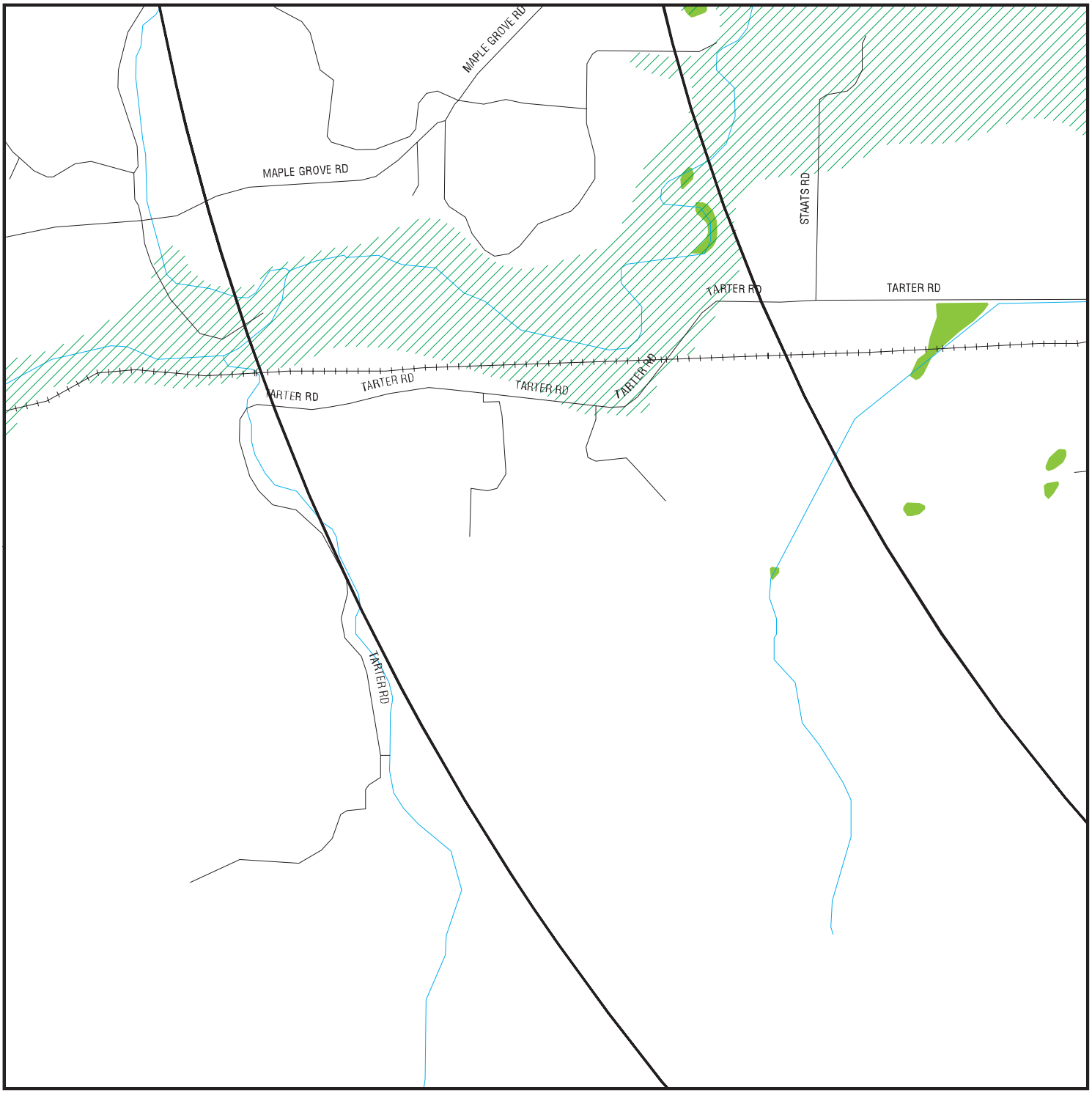
DETAIL MAP 16 of 25 - 1575901.1s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites

0 1/4 1/2 1 Miles

- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

TARGET PROPERTY:	Camp Adair - North	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - North	CONTACT:	Jennifer Lillis
CITY/STATE/ZIP:	Monmouth OR 97361	INQUIRY #:	1575901.1s
LAT/LONG:	44.7837 / 123.2950	DATE:	December 15, 2005 3:22 pm

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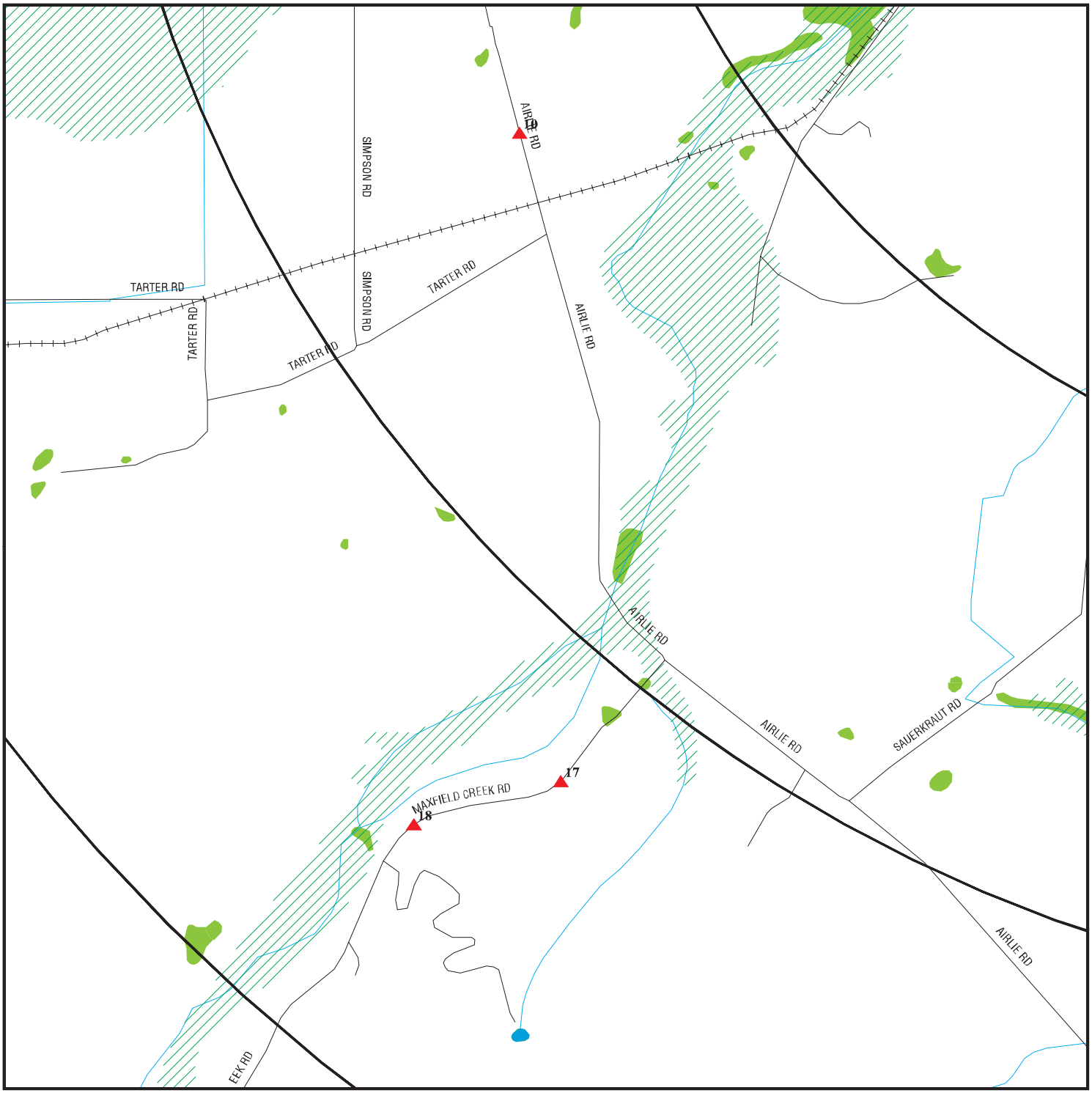
DETAIL MAP 17 of 25 - 1575901.1s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites

0 1/4 1/2 1 Miles

- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

TARGET PROPERTY:	Camp Adair - North	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - North	CONTACT:	Jennifer Lillis
CITY/STATE/ZIP:	Monmouth OR 97361	INQUIRY #:	1575901.1s
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DETAIL MAP 18 of 25 - 1575901.1s

0 1/4 1/2 1 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

TARGET PROPERTY:	Camp Adair - North	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - North	CONTACT:	Jennifer Lillis
CITY/STATE/ZIP:	Monmouth OR 97361	INQUIRY #:	1575901.1s
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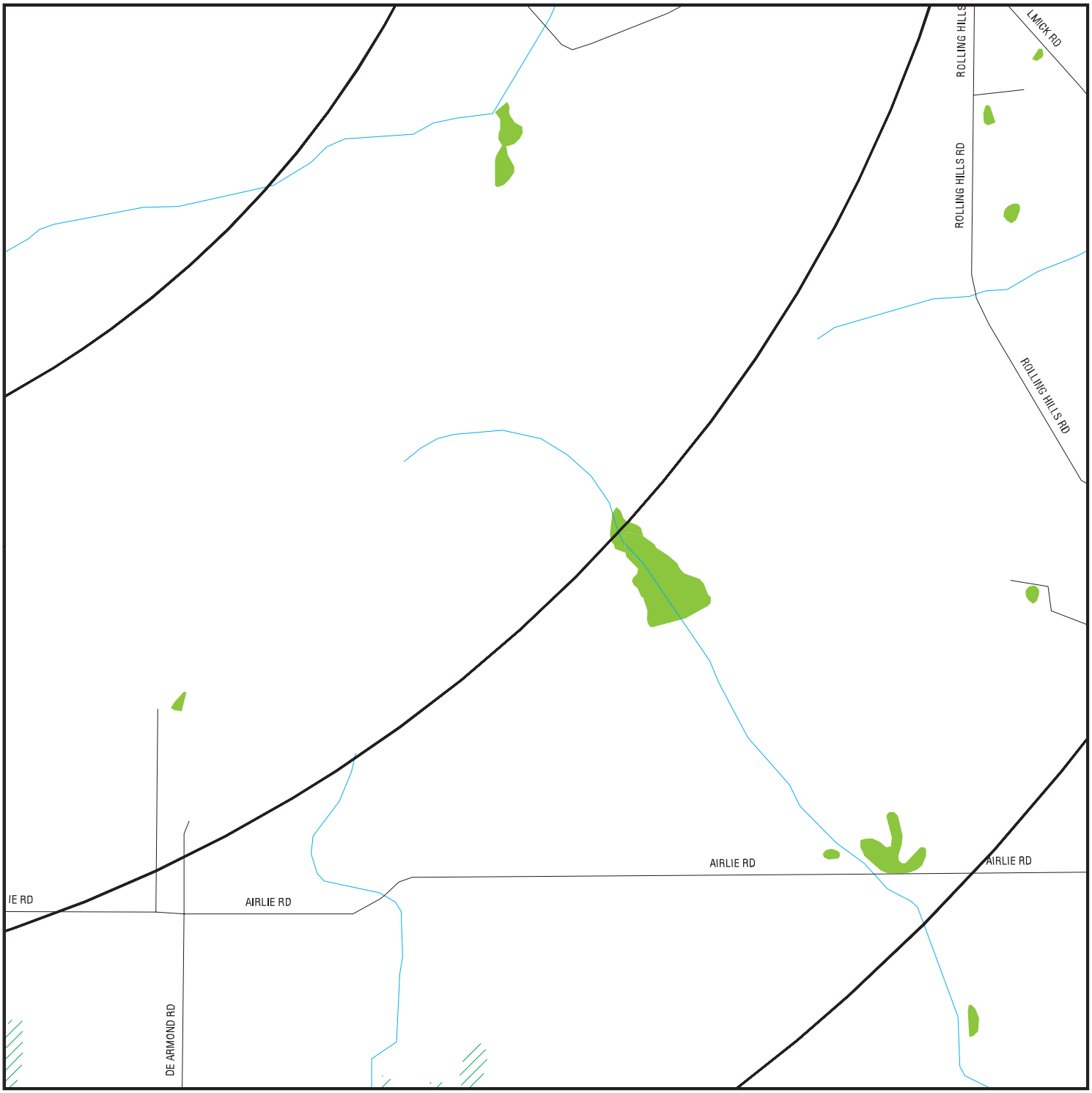
DETAIL MAP 19 of 25 - 1575901.1s



0 1/4 1/2 1 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

TARGET PROPERTY:	Camp Adair - North	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - North	CONTACT:	Jennifer Lillis
CITY/STATE/ZIP:	Monmouth OR 97361	INQUIRY #:	1575901.1s
LAT/LONG:	44.7837 / 123.2950	DATE:	December 15, 2005 3:22 pm

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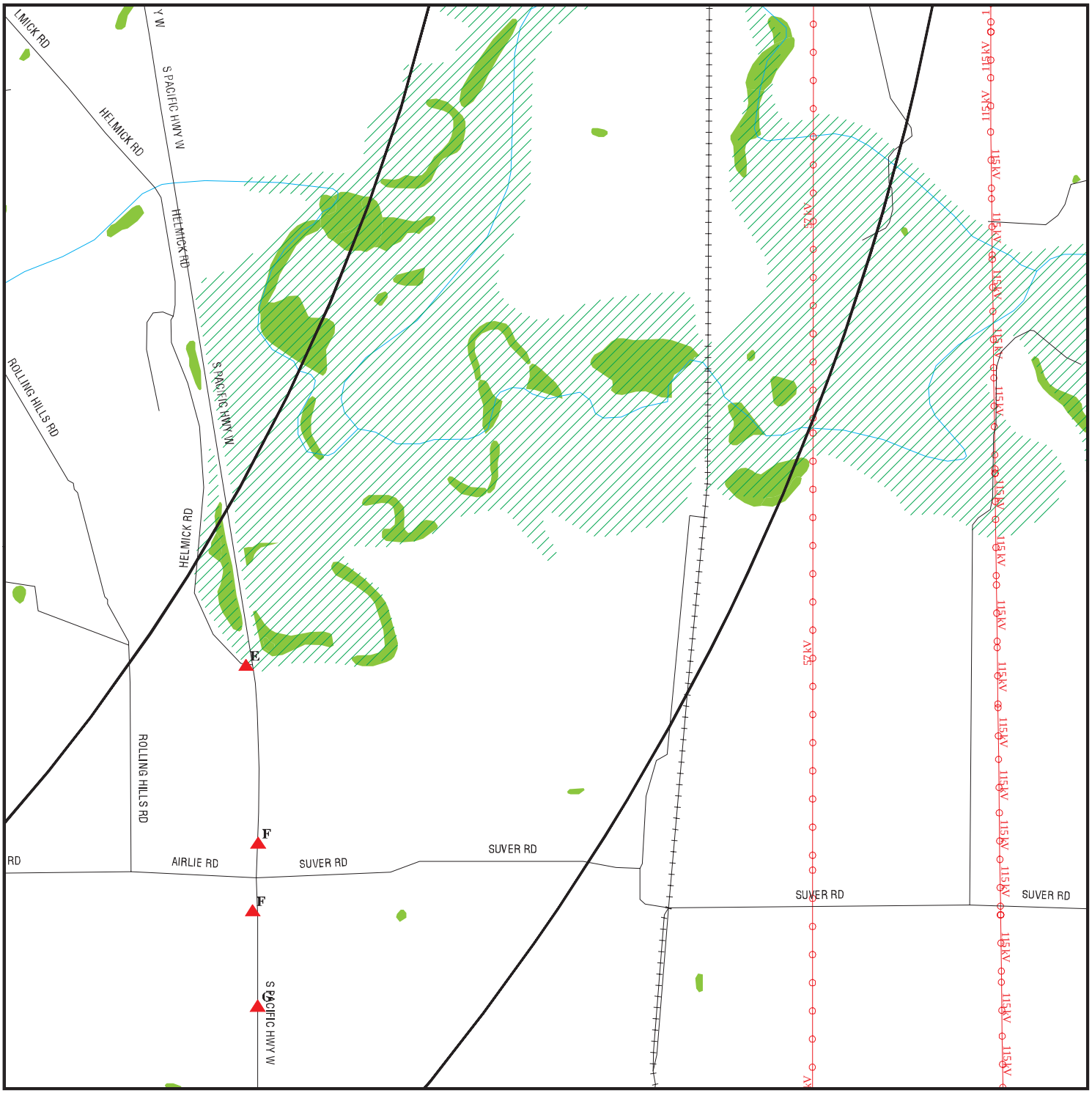
DETAIL MAP 20 of 25 - 1575901.1s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites

0 1/4 1/2 1 Miles

- Indian Reservations BIA
- County Boundary
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

N

TARGET PROPERTY:	Camp Adair - North	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - North	CONTACT:	Jennifer Lillis
CITY/STATE/ZIP:	Monmouth OR 97361	INQUIRY #:	1575901.1s
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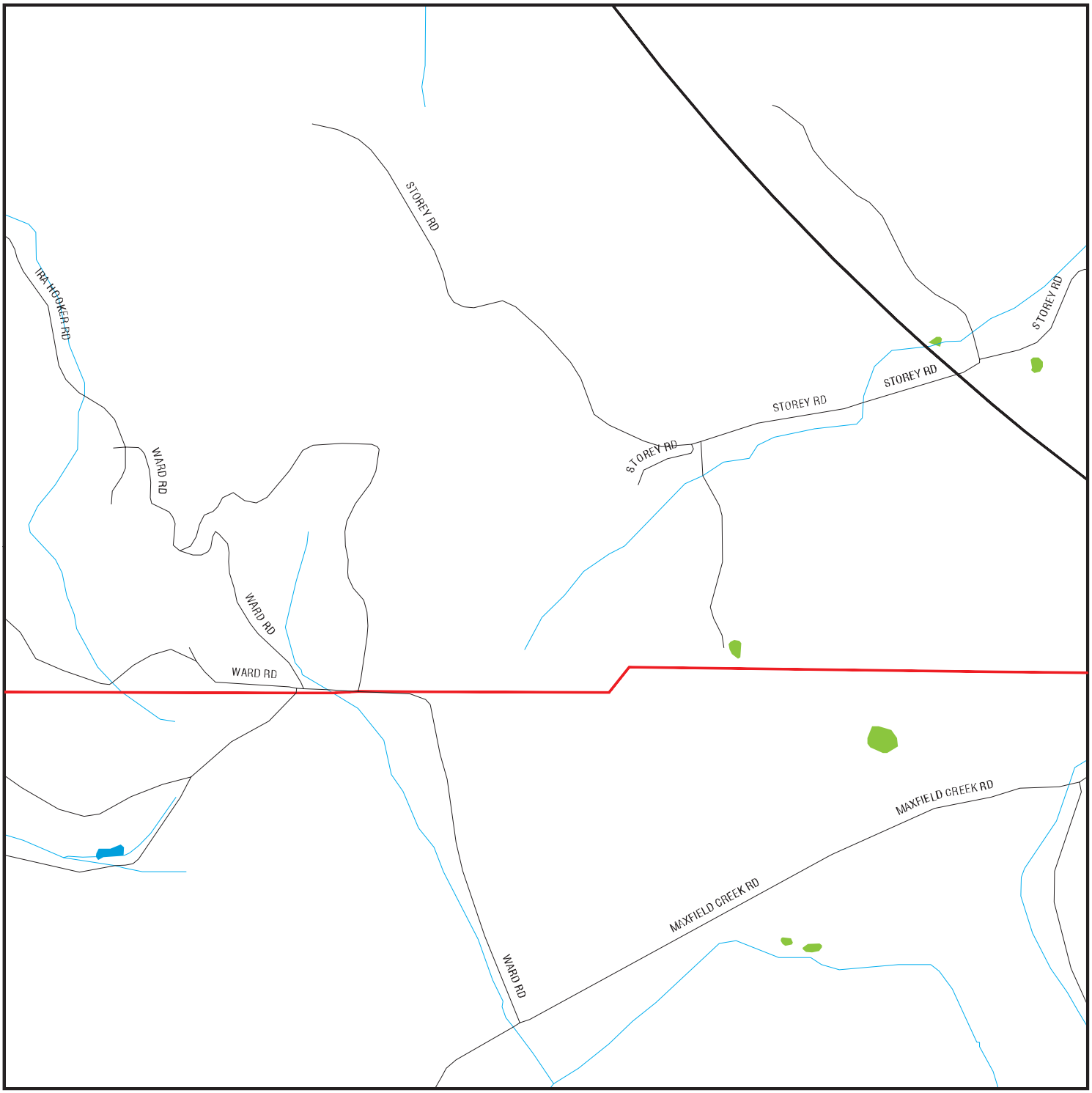
DETAIL MAP 21 of 25 - 1575901.1s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites

0 1/4 1/2 1 Miles

- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

N

TARGET PROPERTY:	Camp Adair - North	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - North	CONTACT:	Jennifer Lillis
CITY/STATE/ZIP:	Monmouth OR 97361	INQUIRY #:	1575901.1s
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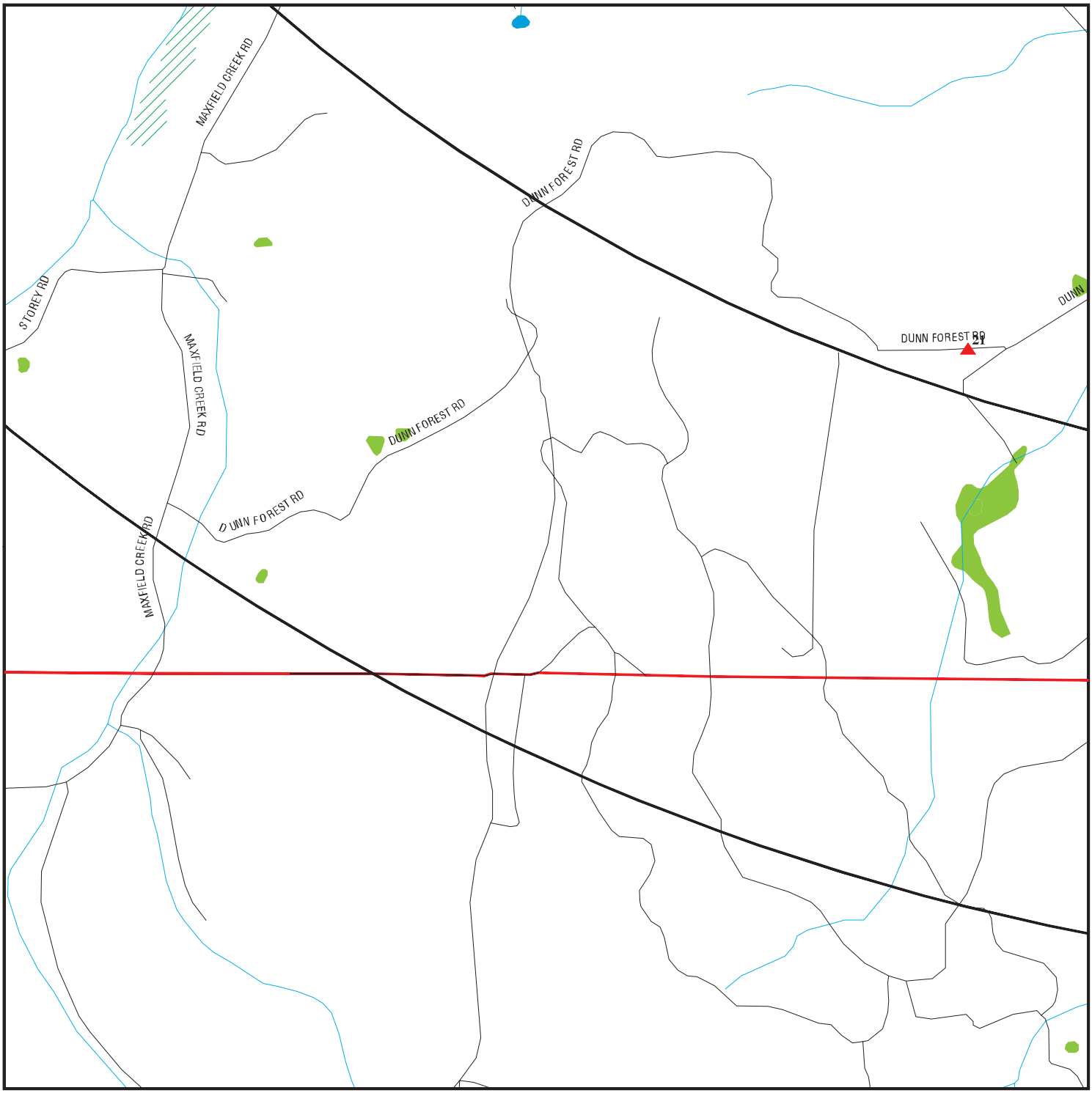
DETAIL MAP 22 of 25 - 1575901.1s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites

0 1/4 1/2 1 Miles

- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

N

TARGET PROPERTY:	Camp Adair - North	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - North	CONTACT:	Jennifer Lillis
CITY/STATE/ZIP:	Monmouth OR 97361	INQUIRY #:	1575901.1s
LAT/LONG:	44.7837 / 123.2950	DATE:	December 15, 2005 3:22 pm

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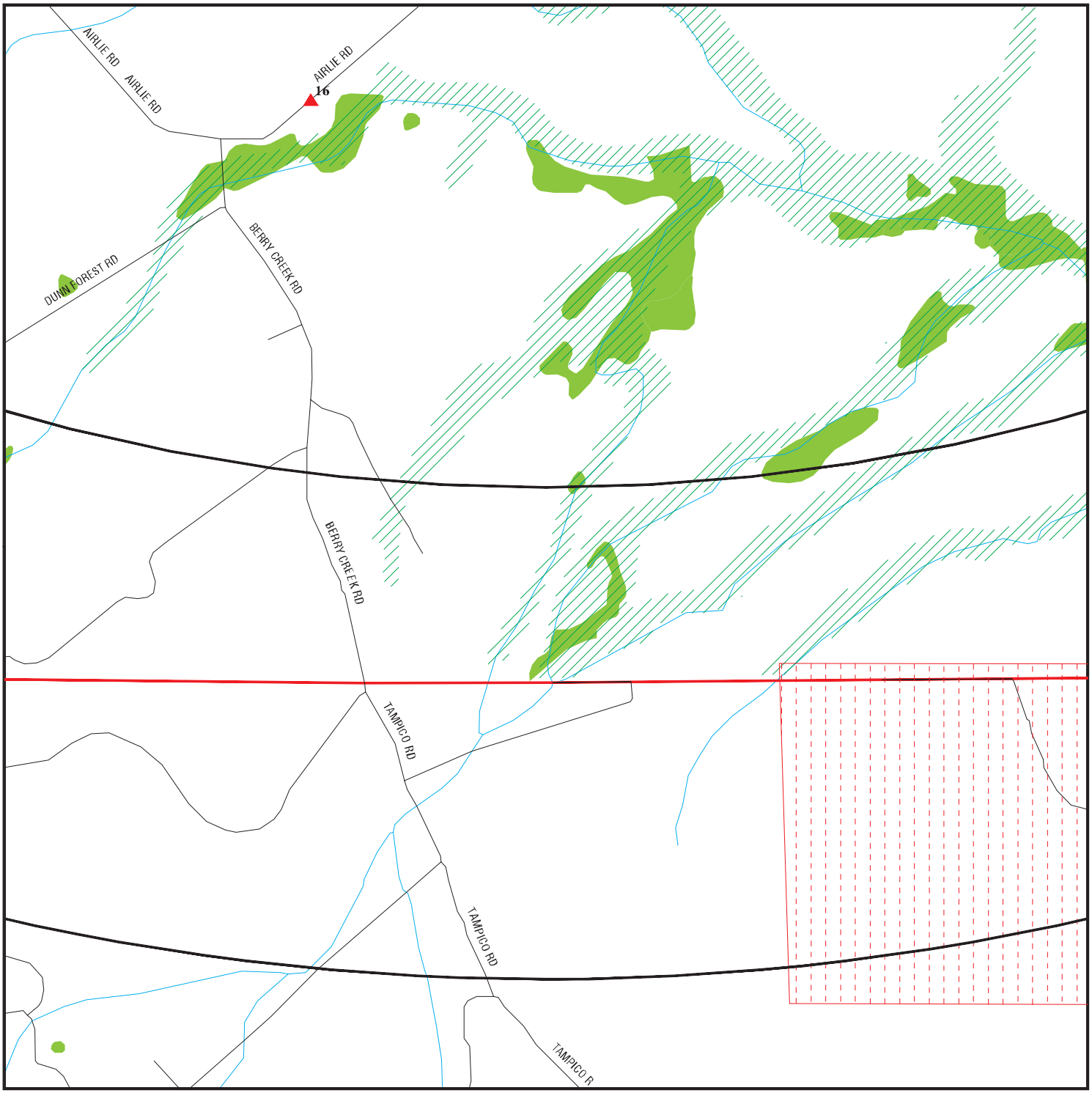
DETAIL MAP 23 of 25 - 1575901.1s



0 1/4 1/2 1 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

TARGET PROPERTY:	Camp Adair - North	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - North	CONTACT:	Jennifer Lillis
CITY/STATE/ZIP:	Monmouth OR 97361	INQUIRY #:	1575901.1s
LAT/LONG:	44.7837 / 123.2950	DATE:	December 15, 2005 3:22 pm

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DETAIL MAP 24 of 25 - 1575901.1s

0 1/4 1/2 1 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

TARGET PROPERTY:	Camp Adair - North	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - North	CONTACT:	Jennifer Lillis
CITY/STATE/ZIP:	Monmouth OR 97361	INQUIRY #:	1575901.1s
LAT/LONG:	44.7837 / 123.2950	DATE:	December 15, 2005 3:22 pm

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DETAIL MAP 25 of 25 - 1575901.1s

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

0 1/4 1/2 1 Miles

TARGET PROPERTY:	Camp Adair - North	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - North	CONTACT:	Jennifer Lillis
CITY/STATE/ZIP:	Monmouth OR 97361	INQUIRY #:	1575901.1s
LAT/LONG:	44.7837 / 123.2950	DATE:	December 15, 2005 3:22 pm

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MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FEDERAL RECORDS								
NPL		5.000	0	0	0	0	0	0
Proposed NPL		5.000	0	0	0	0	0	0
Delisted NPL		5.000	0	0	0	0	0	0
NPL Liens		5.000	0	0	0	0	0	0
CERCLIS		5.000	0	0	0	0	0	0
CERC-NFRAP	X	5.000	0	0	0	0	0	0
CORRACTS		5.000	0	0	0	0	0	0
RCRA TSD		5.000	0	0	0	0	0	0
RCRA Lg. Quan. Gen.		5.000	0	0	0	0	0	0
RCRA Sm. Quan. Gen.	X	5.000	0	0	0	0	2	2
ERNS		5.000	0	0	0	0	0	0
HMIRS		5.000	0	0	0	0	0	0
US ENG CONTROLS		5.000	0	0	0	0	0	0
US INST CONTROL		5.000	0	0	0	0	0	0
DOD		5.000	0	0	0	0	1	1
FUDS	X	5.000	0	0	0	0	0	0
US BROWNFIELDS		5.000	0	0	0	0	0	0
CONSENT		5.000	0	0	0	0	0	0
ROD		5.000	0	0	0	0	0	0
UMTRA		5.000	0	0	0	0	0	0
ODI		5.000	0	0	0	0	0	0
TRIS		5.000	0	0	0	0	0	0
TSCA		5.000	0	0	0	0	0	0
FTTS		5.000	0	0	0	0	0	0
SSTS		5.000	0	0	0	0	0	0
PADS		5.000	0	0	0	0	0	0
MLTS		5.000	0	0	0	0	0	0
MINES		5.000	0	0	0	0	0	0
FINDS	X	5.000	0	0	0	0	9	9
RAATS		5.000	0	0	0	0	0	0
STATE AND LOCAL RECORDS								
State Haz. Waste - ECSI	X	5.000	0	0	0	0	2	2
OR CRL		5.000	0	0	0	0	0	0
State Landfill		5.000	0	0	0	0	0	0
UIC		5.000	0	0	0	0	0	0
HIST LF		5.000	0	0	0	0	0	0
LUST	X	5.000	0	0	0	0	5	5
AOC COL		5.000	0	0	0	0	0	0
UST		5.000	0	0	0	0	4	4
AST		5.000	0	0	0	0	5	5
OR SPILLS		5.000	0	0	0	0	1	1
OR HAZMAT		5.000	0	0	0	0	0	0
ENG CONTROLS		5.000	0	0	0	0	0	0
INST CONTROL		5.000	0	0	0	0	0	0
OR VCS		5.000	0	0	0	0	0	0
DRYCLEANERS		5.000	0	0	0	0	0	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
BROWNFIELDS		5.000	0	0	0	0	0	0
CDL		5.000	0	0	0	0	0	0
HSIS		5.000	0	0	0	0	8	8
TRIBAL RECORDS								
INDIAN RESERV		5.000	0	0	0	0	0	0
INDIAN LUST		5.000	0	0	0	0	0	0
INDIAN UST		5.000	0	0	0	0	0	0
EDR PROPRIETARY RECORDS								
COAL GAS		5.000	0	0	0	0	0	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Coal Gas Site Search: No site was found in a search of Real Property Scan's ENVIROHAZ database.

A1 Target Property — **USACE CAMP ADAIR AFS REMEDIATION SITE**, **ADAIR VILLAGE**, **CORVALLIS, OR 97330** — **RCRA-SQG**, **FINDS** — **1000913273**, **OR0000375808**

Actual: 204 ft.

Site 1 of 7 in cluster A

RCRAInfo:

Owner: US ARMY CORPS OF ENGINEERS - PORTL DIST
(503) 808-4913

EPA ID: OR0000375808

Contact: MICHAEL J. GROSS
(503) 808-4913

Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site:
OREGON-DEPARTMENT OF ENVIRONMENTAL QUALITY
RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

A2 Target Property — **CAMP ADAIR-TANK SITE NO.1**, **NE CORNER CARR AVE/VANDERBILT AVE**, **ADAIR VILLAGE, OR 97330** — **LUST** — **S101210472**, **N/A**

Actual: 204 ft.

Site 2 of 7 in cluster A

LUST:

Facility ID:	02-94-4159
Region:	Western Region
Cleanup Start:	10-Nov-94
Closed Date:	Not reported
Cleanup Complete:	Not reported

A3 Target Property — **CAMP ADAIR**, **T10S R4W R5W WM 8M N OF CITY**, **CORVALLIS, OR 97330** — **CERC-NFRAP** — **1003880760**, **OR0001097161**

Actual: 204 ft.

Site 3 of 7 in cluster A

CERCLIS-NFRAP Classification Data:

Federal Facility:	Not a Federal Facility
Non NPL Code:	NFRAP
NPL Status:	Not on the NPL

CERCLIS-NFRAP Assessment History:

Assessment:	DISCOVERY	Completed:	04/20/1995
Assessment:	PRELIMINARY ASSESSMENT	Completed:	10/02/1995
Assessment:	SITE INSPECTION	Completed:	09/10/1996
Assessment:	ARCHIVE SITE	Completed:	09/10/1996

A4 Target Property — **CAMP ADAIR/ADAIR AF STA** — **FUDS** — **1007211256** / **N/A**

CORVALLIS, OR

Actual: 204 ft.

Site 4 of 7 in cluster A

FUDS:

Federal Facility ID:	OR9799F3067
Facility Name:	CAMP ADAIR/ADAIR AF STA
City:	CORVALLIS
State:	OR
EPA Region:	0
County:	BENTON
Congressional District:	05
US Army District:	Seattle District (NWS)
Fiscal Year:	2004
First Name:	Not reported
Last name:	Not reported
Phone:	206-764-6958
Inst ID:	59912
CTC:	Not reported
RAB:	Not reported

A5 Target Property — **CAMP ADAIR ARMY BASE (FORMER)** — **SHWS - ECSI** — **1006854635**
CAMP ADAIR RD — **FINDS** — **110014168845**
ADAIR VILLAGE, OR 97330

Actual: 204 ft.

Site 5 of 7 in cluster A

FINDS:

Other Pertinent Environmental Activity Identified at Site:
OREGON-DEPARTMENT OF ENVIRONMENTAL QUALITY

ECSI:

State ID Number:	1044	Brown ID	Not reported
Study Area:	False		
Cerclis ID:	0001097161	Tax Lots:	201
Size:	>100 acres	NPL:	False
Orphan:	False	Region ID:	3
Lat/Long:	44.70220 / -123.203	Tax Lots:	201
Township Coord.:	10	Township Zone:	S
Range Coord.:	4	Range Zone:	W
Section Coord.:	17	Qtr Section:	Not reported
Legislative :	17	Further Action:	260
FACA ID :	40091	Score Value:	0
Update Date :	1998-05-14 00:00:00	Created Date:	CONV
Created Time :	/ /		
Updated By :	kpd		

HAZ RELEASED:

Quant. Released:	Not reported
Date:	Not reported
Update Date:	Not reported
Update By:	Not reported
Substance ID :	Not reported
Code :	Not reported
Substance Name :	Not reported
Substance Abbrev. :	Not reported
Substance Categ ID :	Not reported
Substance Sub Categ :	Not reported
Category Level :	Not reported
Created By :	Not reported

CAMP ADAIR ARMY BASE (FORMER) (Continued) **1006854635**

Create Date :	Not reported
Substance Alias ID :	Not reported
Sub Alias Name :	Not reported
Rel Comment ID :	Not reported
Release Code :	Not reported
Release Comments :	Not reported
Sampling Result ID :	Not reported
Feature Id :	Not reported
Hazard Release Id :	Not reported
Medium Code Id :	Not reported
Substance Id :	Not reported
Unit Code :	Not reported
Observation :	Not reported
Owner Operator :	Not reported
Lab Data :	Not reported
Sample Depth :	Not reported
Start Date :	Not reported
End Date :	Not reported
Minimum Concentration :	Not reported
Max Concentration :	Not reported
Last Update By :	Not reported
Last Updated On :	Not reported
Sample Comment :	Not reported

Alias Name: Adair Military Base
FUDS #F10OR0029
Investigation Status: 208

NARR:
NARR ID: 5731130
NARR Code : Site Contacts
Created By: Not reported
Create Date: 2002-12-17 08:50:04.
Updated By: Not reported
Updated Date: 2002-12-17 08:50:04.
NARR Comments John Kranda, (503)326-6486
(2/11/93 KPD/SAS) Camp Adair was a World War II - era army base that covered hundreds of acres. Apparently, it was primarily used for gunnery practice and military maneuvers. The site has since been subdivided and sold to various parties. A 40-acre
parcel is used by the Oregon National Guard as an artillery range. A portion of the site now owned by Boise Cascade was remediated in 1989-91. (See ECSI #941).
In March 1987, a farmer struck an unexploded shell while plowing his field. The shell did
not go off. The field was determined to be on a former artillery practice range.
The US Army Corps of Engineers conducted a quick removal action, and no additional encounters with unexploded ordnance have been reported.
Camp Adair RD is about 10.5 miles north of Corvallis on Hwy 99W. The main portion of the camp lies east of 99W between Adair Village and the Polk County line.
US Department of Defense, OPR, PRI,
(2/11/93 KPD/SAS) The US Army Corps of Engineers investigated the site in 1985, and ranked Camp Adair a "3" on a scale of 1-5 ("1" being the highest priority).
The Corps will perform a formal site assessment at Camp Adair in accordance with its prio
rities. Site Assessment recommends that any further investigation/remediation be performed under the supervision of the Voluntary Cleanup Program (VCP).
(6/9/04 GMW/SAS) Site also includes at least two LUST files: 02-94-4143 and

CAMP ADAIR ARMY BASE (FORMER) (Continued) **1006854635**

02-94-4159.
NARR ID: 5731131
NARR Code : Contamination
Created By: Not reported
Create Date: 2002-12-17 08:50:04.
Updated By: Not reported
Updated Date: 2002-12-17 08:50:04.
NARR ID: 5731132
NARR Code : Site Location
Created By: Not reported
Create Date: 2002-12-17 08:50:04.
Updated By: Not reported
Updated Date: 2002-12-17 08:50:04.
NARR ID: 5731133
NARR Code : Site Ownership
Created By: Not reported
Create Date: 2002-12-17 08:50:04.
Updated By: Not reported
Updated Date: 2002-12-17 08:50:04.
NARR ID: 5731134
NARR Code : Remedial Action
Created By: Not reported
Create Date: 2002-12-17 08:50:04.
Updated By: GWISTAR
Updated Date: 2004-06-09 10:51:50.

ECWQ:
Owner Site Num: 132355 FACA Id : 40091
Site Name: Camp Adair Army Base (Former)
County Code : 2.00
Owner Name: Camp Adair Army Base
Owner Address: Camp Adair RD
Adair Village, 97330
Lat/Long 44.7022 / -123.2030
Owner Code: SUS

PERMIT:
Permit Number: Not reported Permit Type: Not reported
Permit Agency: Not reported
Permit Comments: Not reported

ADMIN ACT:
Admin ID: 721391 Action ID: 9425
Agency ID : Dept Of Environmental Quality Start Date: 1993-02-08 00:00:00
Further Action: Not reported Region ID: Headquarters
Complete Date: 1993-02-08 00:00:00 Substance Code: SAS
Rank Value: 0 Cleanup Flag: False
Updated By: kpd Update Date: 1995-09-05 00:00:00
Created By: Not reported Create Date: 2002-12-17 08:50:22.
Employee Id: 301
Comments : Not reported
Administrative Action: SITE EVALUATION
Admin Action Category: Not reported
Admin Flag: True
Admin Action Code Flag: False
Admin Action : SITE EVALUATION

Admin ID: 711368 Action ID: 9426
Agency ID : Dept Of Environmental Quality Start Date: 1997-01-06 00:00:00

CAMP ADAIR ARMY BASE (FORMER) (Continued) **1006854635**

Further Action:	Low	Region ID:	Western Region
Complete Date:	1997-01-06 00:00:00	Substance Code:	SAS
Rank Value:	0	Cleanup Flag:	False
Updated By:	MENGLIS	Update Date:	2003-10-15 14:52:16.
Created By:	Not reported	Create Date:	2002-12-17 08:50:22.
Employee Id:	538		
Comments :	FTA for EPA Site Inspection of Camp Adair Site. See also ECSI #832 and #941.		
Administrative Action:	SITE PRIORITY EVALUATION FOR FURTHER ACTION		
Admin Action Category:	Not reported		
Admin Flag:	True		
Admin Action Code Flag:	False		
Admin Action :	SITE PRIORITY EVALUATION FOR FURTHER ACTION		

Admin ID:	716200	Action ID:	9424
Agency ID :	Dept Of Environmental Quality	Start Date:	1990-02-13 00:00:00
Further Action:	Not reported	Region ID:	Headquarters
Complete Date:	Not reported	Substance Code:	SAS
Rank Value:	0	Cleanup Flag:	False
Updated By:	kpd	Update Date:	1995-09-05 00:00:00
Created By:	Not reported	Create Date:	2002-12-17 08:50:22.
Employee Id:	26		
Comments :	Not reported		
Administrative Action:	Site added to database		
Admin Action Category:	Not reported		
Admin Flag:	True		
Admin Action Code Flag:	False		
Admin Action :	Site added to database		

Admin ID:	715843	Action ID:	9421
Agency ID :	Environmantal Protection Agency	Start Date:	1995-04-20 00:00:00
Further Action:	Not reported	Region ID:	Not reported
Complete Date:	Not reported	Substance Code:	Not reported
Rank Value:	0	Cleanup Flag:	False
Updated By:	dmc	Update Date:	1995-09-12 00:00:00
Created By:	Not reported	Create Date:	2002-12-17 08:50:22.
Employee Id:	Not reported		
Comments :	Not reported		
Administrative Action:	Site added to CERCLIS		
Admin Action Category:	Not reported		
Admin Flag:	True		
Admin Action Code Flag:	False		
Admin Action :	Site added to CERCLIS		

Admin ID:	720679	Action ID:	9437
Agency ID :	Dept Of Environmental Quality	Start Date:	1993-02-09 00:00:00
Further Action:	Not reported	Region ID:	Headquarters
Complete Date:	1993-02-09 00:00:00	Substance Code:	SAS
Rank Value:	0	Cleanup Flag:	False
Updated By:	dmc	Update Date:	1995-08-17 00:00:00
Created By:	Not reported	Create Date:	2002-12-17 08:50:22.
Employee Id:	301		
Comments :	Not reported		
Administrative Action:	Listing Review completed		
Admin Action Category:	Not reported		
Admin Flag:	True		
Admin Action Code Flag:	False		
Admin Action :	Listing Review completed		

CAMP ADAIR ARMY BASE (FORMER) (Continued) **1006854635**

Admin ID:	720680	Action ID:	9449
Agency ID :	Dept Of Environmental Quality	Start Date:	1993-02-10 00:00:00
Further Action:	Not reported	Region ID:	Headquarters
Complete Date:	Not reported	Substance Code:	SAS
Rank Value:	0	Cleanup Flag:	False
Updated By:	kpd	Update Date:	1995-09-05 00:00:00
Created By:	Not reported	Create Date:	2002-12-17 08:50:22.
Employee Id:	301		
Comments :	Not reported		
Administrative Action:	Insufficient information to list		
Admin Action Category:	Not reported		
Admin Flag:	True		
Admin Action Code Flag:	False		
Admin Action :	Insufficient information to list		

Admin ID:	720681	Action ID:	9496
Agency ID :	Dept Of Environmental Quality	Start Date:	1993-02-11 00:00:00
Further Action:	Low	Region ID:	Headquarters
Complete Date:	1993-02-11 00:00:00	Substance Code:	SAS
Rank Value:	0	Cleanup Flag:	False
Updated By:	kpd	Update Date:	1995-09-05 00:00:00
Created By:	Not reported	Create Date:	2002-12-17 08:50:22.
Employee Id:	301		
Comments :	Options letter (2/18/93) sent by LSK to US Army Corps of Engineers, response expected within 2 weeks of receipt.		
Administrative Action:	State Basic Preliminary Assessment recommended (PA)		
Admin Action Category:	Not reported		
Admin Flag:	True		
Admin Action Code Flag:	False		
Admin Action :	State Basic Preliminary Assessment recommended (PA)		

DISPOSAL:

Disposal ID:	Not reported	Feature ID:	Not reported
Medium :	Not reported		
Treatment :	Not reported		
Disposal Method:	Not reported		
Start Date:	Not reported	End Date:	Not reported
Disposal Flag:	Not reported	Disposal Qty:	Not reported
Unit Code:	Not reported		
Depth :	Not reported		
Monitor :	Not reported		
Manifest Num :	Not reported		
Removed By :	Not reported		
Loc Comments:	Not reported		
Disposal Sub ID:	Not reported		
Substance ID:	Not reported		
Created By:	Not reported		
Create Date:	Not reported		

FEATURE:

Feature Id :	Not reported
Site Id :	Not reported
Feature Code :	Not reported
Relative Position :	Not reported
Hazard Rel Id :	Not reported
Region Code :	Not reported
Lat Long Method :	Not reported

CAMP ADAIR ARMY BASE (FORMER) (Continued) **1006854635**

Lat Long Source : Not reported
County Code : Not reported
Refrence Id : Not reported
Twnshp Coord : Not reported
Township Zone : Not reported
Range Coord : Not reported
Range Zone : Not reported
Section Coord : Not reported
Qtr Section Coord : Not reported
Address : Not reported
Not reported
Zip Plus : Not reported
Lat/Long : Not reported
Lat/Lon Decimal : Not reported
Feature Size : Not reported
Est Accuracy : Not reported
Created On Date : Not reported
Created By Prgm : Not reported
Last Updated By : Not reported
Last Updated On : Not reported
Comment : Not reported

WELL:
Well ID: Not reported
Water Resource Code: Not reported
Effective Date: Not reported
Aquifer Code: Not reported
Ground Station Key: Not reported

OPERATIONS:
Operation Id : 132355
Operation Status : Inactive
Common Name : Camp Adair Army Base
Yrs of Operation : Not reported
Comments : Not reported
Updated By : kpd
Updated Date : 1995-09-05 00:00:00

Process Code ID: Not reported
Years Of Process: Not reported
Created By: Not reported
Created Date: Not reported

Operations SIC Id: 196038
SIC Code: 9711
Created By: Not reported
Created Date: 2002-12-17 08:50:34.

A6 **FORMER CAMP ADAIR** **FINDS** **1006845323**
Target **CAMP ADAIR** **110014070931**
Property **ADAIR VILLAGE, OR 97330**

Site 6 of 7 in cluster A

Actual:
204 ft.

Map ID Direction Distance Distance (ft.) Elevation	Site	Database(s)	EDR ID Number EPA ID Number
	FORMER CAMP ADAIR (Continued)		**1006845323**
	FINDS: Other Pertinent Environmental Activity Identified at Site: OREGON-DEPARTMENT OF ENVIRONMENTAL QUALITY		
A7 **Target** **Property** **Actual:** **204 ft.**	**CAMP ADAIR-TANK SITE NO.1** **NE CORNER CARR AVE/VANDERBILT AVE** **ADAIR VILLAGE, OR 97330** **Site 7 of 7 in cluster A** FINDS: Other Pertinent Environmental Activity Identified at Site: OREGON-DEPARTMENT OF ENVIRONMENTAL QUALITY	**FINDS**	**1006867510** **110014304403**
DOD **Region** **South** **> 1** **23147 ft.**	**CAMP ADAIR MILITARY RESERVATION** **CAMP ADAIR MILITARY RESER (County), OR** FEDERAL LANDS: Feature 1: Army DOD Feature 2: Not reported Feature 3: Not reported Agency: DOD URL: Not reported Name 1: Camp Adair Military Reservation Name 2: Not reported Name 3: Not reported State: OR	**DOD**	**CUSA004470** **N/A**
B8 **NNE** **> 1** **7259 ft.** **Relative:** **Higher** **Actual:** **246 ft.**	**KILLEN RESIDENCE** **12295 ELKINS ROAD** **MONMOUTH, OR 97361** **Site 1 of 2 in cluster B** LUST: Facility ID: 27-96-4075 Region: Western Region Cleanup Start: 29-Apr-96 Closed Date: 10-Jan-97 Cleanup Complete: 14-Oct-96	**LUST**	**S102418010** **N/A**
B9 **NNE** **> 1** **7259 ft.** **Relative:** **Higher** **Actual:** **246 ft.**	**KILLEN RESIDENCE** **12295 ELKINS ROAD** **MONMOUTH, OR 97361** **Site 2 of 2 in cluster B**	**FINDS**	**1006867095** **110014300194**

KILLEN RESIDENCE (Continued) **1006867095**

FINDS:
Other Pertinent Environmental Activity Identified at Site:
OREGON-DEPARTMENT OF ENVIRONMENTAL QUALITY

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10 WSW > 1 12882 ft. | **RAINBOW HILL RANCH** | **UST** | **U000434660**
14080 AIRLIE RD | **N/A**
MONMOUTH, OR 97361

Relative: Higher

Actual: 234 ft.

UST:

Facility ID:	9767
Facility Telephone:	(503)838-2726
Permittee Name:	LOUIS HAMILTON, PARTNER
Active Tanks:	Not reported
Decommissioned Tanks:	1
Number of Permitted Tanks:	Not reported
Number of Upgraded Tanks:	1

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11 West > 1 13061 ft. | **POLK COUNTY FIRE DISTRICT NO. 1** | **FINDS** | **1007151347**
14775 AIRLIE ROAD | **110016657722**
MONMOUTH, OR 97361

Relative: Higher

Actual: 243 ft.

FINDS:
Other Pertinent Environmental Activity Identified at Site:
OREGON-DEPARTMENT OF ENVIRONMENTAL QUALITY

C12 North > 1 14351 ft. | **GENETICS OUTPLANTING FIELD TEST SITE** | **LUST** | **S100675952**
ZUMWALT RD | **N/A**
MONMOUTH, OR 97361

Site 1 of 2 in cluster C

Relative: Higher

Actual: 326 ft.

LUST:

Facility ID:	27-93-4107
Region:	Western Region
Cleanup Start:	19-Jul-93
Closed Date:	21-Nov-02
Cleanup Complete:	24-Jun-02

C13 North > 1 14351 ft. | **GENETICS OUTPLANTING FIELD TEST SITE** | **UST** | **U001330349**
ZUMWALT RD | **N/A**
MONMOUTH, OR 97361

Site 2 of 2 in cluster C

Relative: Higher

Actual: 326 ft.

UST:

Facility ID:	11235
Facility Telephone:	(503)750-7255
Permittee Name:	SIUSLAW NAT'L FOREST
Active Tanks:	Not reported
Decommissioned Tanks:	1
Number of Permitted Tanks:	Not reported
Number of Upgraded Tanks:	1

14 NW > 1 14505 ft. | **LUCKIAMUTE DOMESTIC WATER COOP**
14885 FISHBACK RD
MONMOUTH, OR 97361 | **HSIS** | **S106847470**
N/A

Relative: Higher

Actual: 262 ft.

HSIS:

Emergency Contact:	KURT RIEMER
Emergency Procedure: Not reported	
Chemical Trade Name:	CHLORINE LIQUID
Manager Name:	Not reported
Mailing Address:	8585 SUVER RD MONMOUTH, OR 97361
Mailing County:	POLK
Day Phone:	5038382075
Employee File #:	084190
No. of Employees:	0
Placard:	Yes
Business Type:	WATER DISTRIBUTION
Sprinkler System:	No
Business Phone:	5038382075
Department Or Division Of Company:	Not reported
Facility Has Written Emergency Plan:	Not reported
Company Name:	LUCKIAMUTE DOMESTIC WATER COOP
Fire Dept Code:	0472
Physical State :	Not reported
Physical State Of The Substance:	LIQUID
Average Amount Possessed During The Year Code:	02
Description Of The Avg Qnty Code:	10-19
Maximum Amount Possessed During The Year Code:	02
Description Of The Max Qnty Code:	10-19
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	
Type Code:	N
Description:	PLASTIC BOTTLE, JUG, BUCKET
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1017
Chemical Abstract Service Identifier Number:	7782505
First Hazardous Classification Code For Chemical:	8.0
Hazard Classification 1 Of The Chemical:	Corrosives
Second Hazardous Classification Code For Chemical:	5.1
Hazard Classification 2 Of The Chemical:	Oxidizers
Third Hazardous Classification Code For Chemical:	6.3
Hazard Classification 3 Of The Chemical:	Acute Health Hazard
Is Substance Pure Or Mixture:	Not reported
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Yes
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	Yes
EPA Pesticide Registration Number:	37982-2
Most Hazardous Ingridient:	SODIUM HYPOCHLORITE
Contains 112R :	No
Contains EHS:	Yes
Contains 313:	No

LUCKIAMUTE DOMESTIC WATER COOP (Continued) **S106847470**

Fertilizer:	Not reported
Pesticide:	Yes
NAICS Code 1:	221310
NAICS Desc 1:	WATER SUPPLY & IRRIGATION SYSTEMS
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported

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15 NW > 1 15531 ft. — **DEPARTMENT OF VETERANS AFFAIRS**, **14765 FISHBACK RD**, **MONMOUTH, OR 97361** — **RCRA-SQG FINDS** — **1000214328 ORD987171113**

Relative: Higher

Actual: 240 ft.

RCRAInfo:

Owner:	BEVERLY MCCLEAN (503) 373-2384
EPA ID:	ORD987171113
Contact:	Not reported
Classification:	Small Quantity Generator
TSDF Activities:	Not reported
Violation Status:	No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site:
RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

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16 South > 1 17143 ft. — **BUCKOVIC, WARREN**, **12340 AIRLIE RD**, **MONMOUTH, OR 97361** — **UST** — **U000434654 N/A**

Relative: Higher

Actual: 227 ft.

UST:

Facility ID:	1553
Facility Telephone:	(503) 838-2638
Permittee Name:	WARREN BUCKOVIC, OWNER
Active Tanks:	Not reported
Decommissioned Tanks:	5
Number of Permitted Tanks:	Not reported
Number of Upgraded Tanks:	5

---

17 SW > 1 17152 ft. — **12955 MAXFIELD CREEK RD**, **MONMOUTH, OR** — **OR SPILLS** — **S104490516 N/A**

Relative: Higher

Actual: 299 ft.

OR SPILLS:

Facility ID:	Not reported	Spill Date:	Not reported
Material:	Not reported	Quantity:	Not reported
Release Date:	03FEB2000	Year:	2000
How Occurred:	Not reported		Not reported
Source:	Not reported	Media	Not reported

Materials:	Not reported
Location:	Concern is: Drug waste was flowing into a Spring that feeds the Luckiamute River.
Description:	Large drug lab (DEA seizure -25 lbs of product) concern for DEQ is evidence of dumping of wastes near a spring on the property
Responsible Company:	OR State Police
Responsible Content:	Not reported

(Continued) **S104490516**

Description : Not reported

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18 SW > 1 18525 ft. | **TRTL ENTERPRISES LLC**
13200 MAXFIELD CREEK RD
MONMOUTH, OR 97361 | **HSIS AST** | **S104069815 N/A**

Relative: Higher

Actual: 284 ft.

HSIS:

Emergency Contact:	TOM WRIGHT
Emergency Procedure: Not reported	
Chemical Trade Name:	DIESEL
Manager Name:	TOM WRIGHT
Mailing Address:	PO BOX 53 MONMOUTH, OR 97361
Mailing County:	POLK
Day Phone:	5038380744
Employee File #:	059231
No. of Employees:	0
Placard:	No
Business Type:	LOGGING
Sprinkler System:	No
Business Phone:	5038380744
Department Or Division Of Company:	Not reported
Facility Has Written Emergency Plan:	No
Company Name:	TRTL ENTERPRISES LLC
Fire Dept Code:	0472
Physical State :	Not reported
Physical State Of The Substance:	LIQUID
Average Amount Possessed During The Year Code:	10
Description Of The Avg Qnty Code:	200-499
Maximum Amount Possessed During The Year Code:	10
Description Of The Max Qnty Code:	200-499
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	
Type Code:	A
Description:	ABOVEGROUND TANK
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1202
Chemical Abstract Service Identifier Number:	68476346
First Hazardous Classification Code For Chemical:	3.3
Hazard Classification 1 Of The Chemical:	Flammable Liq. (73F<FP<141F)
Second Hazardous Classification Code For Chemical:	6.3
Hazard Classification 2 Of The Chemical:	Acute Health Hazard
Third Hazardous Classification Code For Chemical:	6.4
Hazard Classification 3 Of The Chemical:	Chronic Health Hazard
Is Substance Pure Or Mixture:	Mixture
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	PETROLEUM DISTILLATES
Contains 112R :	No

TRTL ENTERPRISES LLC (Continued) **S104069815**

Contains EHS: No
Contains 313: Yes
Fertilizer: No
Pesticide: No
NAICS Code 1: 113310
NAICS Desc 1: LOGGING
NAICS Code 2: Not reported
NAICS Desc 2: Not reported

AST:
Employer File Number: 059231
Hazardous Substance: DIESEL
Reporting Quantities: 200-499
Quantity Units: GALLONS
Physical State: LIQUID
Storage 1: ABOVEGROUND TANK

D19 **CENTANNI, J HOT** **FINDS** **1006855439**
North **13005 FISHBACK ROAD** **110014177808**
> 1 **MONMOUTH, OR 97361**
19983 ft.

Site 1 of 2 in cluster D

Relative:
Higher

FINDS:
Other Pertinent Environmental Activity Identified at Site:
OREGON-DEPARTMENT OF ENVIRONMENTAL QUALITY

Actual:
712 ft.

D20 **CENTANNI, J HOT** **LUST** **S102959676**
North **13005 FISHBACK ROAD** **N/A**
> 1 **MONMOUTH, OR 97361**
19986 ft.

Site 2 of 2 in cluster D

Relative:
Higher

LUST:
Facility ID: 27-98-4001
Region: Western Region
Cleanup Start: Not reported
Closed Date: Not reported
Cleanup Complete: Not reported

Actual:
708 ft.

---

21 **AIRLIE WINERY** **HSIS** **S104040124**
SSW **15305 DUNN FOREST RD** **AST** **N/A**
> 1 **MONMOUTH, OR 97361**
20631 ft.

Relative:
Higher

HSIS:
Emergency Contact: MARY E OLSON
Emergency Procedure: Not reported
Chemical Trade Name: PROPANE
Manager Name: MARY E OLSON
Mailing Address: 15305 DUNN FOREST RD
MONMOUTH, OR 97361
Mailing County: POLK
Day Phone: 5038386013
Employee File #: 060905
No. of Employees: 1
Placard: No
Business Type: GROWING GRAPES MAKING & SELLING WINE

Actual:
296 ft.

AIRLIE WINERY (Continued) **S104040124**

Sprinkler System:	No
Business Phone:	5038386013
Department Or Division Of Company:	Not reported
Facility Has Written Emergency Plan:	No
Company Name:	AIRLIE WINERY
Fire Dept Code:	0472
Physical State :	Not reported
Physical State Of The Substance:	GAS
Average Amount Possessed During The Year Code:	10
Description Of The Avg Qnty Code:	200-499
Maximum Amount Possessed During The Year Code:	10
Description Of The Max Qnty Code:	200-499
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	
Type Code:	A
Description:	ABOVEGROUND TANK
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1075
Chemical Abstract Service Identifier Number:	74986
First Hazardous Classification Code For Chemical:	2.1
Hazard Classification 1 Of The Chemical:	Flammable Gases
Second Hazardous Classification Code For Chemical:	6.3
Hazard Classification 2 Of The Chemical:	Acute Health Hazard
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Pure
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	PROPANE
Contains 112R :	No
Contains EHS:	No
Contains 313:	No
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	312130
NAICS Desc 1:	WINERIES
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	MARY E OLSON
Emergency Procedure: Not reported	
Chemical Trade Name:	DIESEL
Manager Name:	MARY E OLSON
Mailing Address:	15305 DUNN FOREST RD MONMOUTH, OR 97361
Mailing County:	POLK
Day Phone:	5038386013
Employee File #:	060905

AIRLIE WINERY (Continued) **S104040124**

No. of Employees:	1
Placard:	No
Business Type:	GROWING GRAPES MAKING & SELLING WINE
Sprinkler System:	No
Business Phone:	5038386013
Department Or Division Of Company:	Not reported
Facility Has Written Emergency Plan:	No
Company Name:	AIRLIE WINERY
Fire Dept Code:	0472
Physical State :	Not reported
Physical State Of The Substance:	LIQUID
Average Amount Possessed During The Year Code:	10
Description Of The Avg Qnty Code:	200-499
Maximum Amount Possessed During The Year Code:	10
Description Of The Max Qnty Code:	200-499
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	
Type Code:	A
Description:	ABOVEGROUND TANK
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1202
Chemical Abstract Service Identifier Number:	68476346
First Hazardous Classification Code For Chemical:	3.3
Hazard Classification 1 Of The Chemical:	Flammable Liq. (73F<FP<141F)
Second Hazardous Classification Code For Chemical:	6.3
Hazard Classification 2 Of The Chemical:	Acute Health Hazard
Third Hazardous Classification Code For Chemical:	6.4
Hazard Classification 3 Of The Chemical:	Chronic Health Hazard
Is Substance Pure Or Mixture:	Pure
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	PETROLEUM DISTILLATES
Contains 112R :	No
Contains EHS:	No
Contains 313:	Yes
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	312130
NAICS Desc 1:	WINERIES
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported

AST:

Employer File Number:	060905
Hazardous Substance:	PROPANE
Reporting Quantities:	200-499
Quantity Units:	GALLONS
Physical State:	GAS
Storage 1:	ABOVEGROUND TANK

AIRLIE WINERY (Continued) **S104040124**

Employer File Number: 060905
Hazardous Substance: DIESEL
Reporting Quantities: 200-499
Quantity Units: GALLONS
Physical State: LIQUID
Storage 1: ABOVEGROUND TANK

E22
ESE
> 1
22163 ft.

Relative:
Higher

Actual:
206 ft.

CS SEEDS **SHWS - ECSI** **S103842294**
12680 S PACIFIC HWY **N/A**
MONMOUTH, OR 97361

Site 1 of 3 in cluster E

ECSI:

State ID Number:	1349	Brown ID	Not reported
Study Area:	False		
Cerclis ID:	Not reported	Tax Lots:	Not reported
Size:	Not reported	NPL:	False
Orphan:	False	Region ID:	3
Lat/Long:	44.77990 / -123.228	Tax Lots:	Not reported
Township Coord.:	9	Township Zone:	S
Range Coord.:	4	Range Zone:	W
Section Coord.:	19	Qtr Section:	Not reported
Legislative :	19	Further Action:	260
FACA ID :	6017	Score Value:	0
Update Date :	1998-05-18 00:00:00	Created Date:	CONV
Created Time :	/ /		
Updated By :	kpd		

HAZ RELEASED:

Quant. Released:	Not reported
Date:	Not reported
Update Date:	Not reported
Update By:	Not reported
Substance ID :	Not reported
Code :	Not reported
Substance Name :	Not reported
Substance Abbrev. :	Not reported
Substance Categ ID :	Not reported
Substance Sub Categ :	Not reported
Category Level :	Not reported
Created By :	Not reported
Create Date :	Not reported
Substance Alias ID :	Not reported
Sub Alias Name :	Not reported
Rel Comment ID :	Not reported
Release Code :	Not reported
Release Comments :	Not reported
Sampling Result ID :	Not reported
Feature Id :	Not reported
Hazard Release Id :	Not reported
Medium Code Id :	Not reported
Substance Id :	Not reported
Unit Code :	Not reported
Observation :	Not reported
Owner Operator :	Not reported
Lab Data :	Not reported
Sample Depth :	Not reported

CS SEEDS (Continued) **S103842294**

Start Date : Not reported
End Date : Not reported
Minimum Concentration : Not reported
Max Concentration : Not reported
Last Update By : Not reported
Last Updated On : Not reported
Sample Comment : Not reported

Alias Name: Not reported
Investigation Status: 208

NARR:
NARR ID: 5732800
NARR Code : Contamination
Created By: Not reported
Create Date: 2002-12-17 08:50:04.
Updated By: Not reported
Updated Date: 2002-12-17 08:50:04.
NARR Comments (3/4/93 KPD/SAS) On April 18, 1991, empty pesticide containers were burned in an open pit at the site. Apparently, an employee inhaled vapors from the fire, went to the hospital, and the hospital notified Margot Barnett of the State Health Division.
Barnett referred the site to DEQ and OR-OSHA. A site inspection by OR-OSHA on May 15 found that empty pesticide containers were still being burned in the pit, in violation of applicable regulations. There are unconfirmed reports that empty container
s may have been buried on the site, too. The site is apparently still active within OSHA.
pesticides
Burning of empty pesticide containers in an open pit. Time of release: April - May 1991.
(3/4/93 KPD/SAS) No spills or burial of hazardous substances have been documented at the site. However, based upon employee allegations and the information provided by OR-OSHA, Site Assessment believes a Preliminary Assessment should be performed at
the site to check for the possible illegal disposal of pesticides. Any action at this site should be coordinated with OR-OSHA.
NARR ID: 5732801
NARR Code : Hazardous Substance/Waste Types
Created By: Not reported
Create Date: 2002-12-17 08:50:04.
Updated By: Not reported
Updated Date: 2002-12-17 08:50:04.
NARR ID: 5732802
NARR Code : Manner of Release
Created By: Not reported
Create Date: 2002-12-17 08:50:04.
Updated By: Not reported
Updated Date: 2002-12-17 08:50:04.
NARR ID: 5732803
NARR Code : Remedial Action
Created By: Not reported
Create Date: 2002-12-17 08:50:04.
Updated By: Not reported
Updated Date: 2002-12-17 08:50:04.

ECWQ:
Owner Site Num: 132665 FACA Id : 6017
Site Name: CS Seeds

CS SEEDS (Continued) **S103842294**

County Code : 27.00
Owner Name: CS Seeds
Owner Address: 12680 S Pacific Hwy
Monmouth, 97361
Lat/Long 44.7799 / -123.2288
Owner Code: SUS

PERMIT:

Permit Number:	Not reported	Permit Type:	Not reported
Permit Agency:	Not reported		
Permit Comments:	Not reported		

ADMIN ACT:

Admin ID:	723464	Action ID:	9425
Agency ID :	Dept Of Environmental Quality	Start Date:	1993-03-01 00:00:00
Further Action:	Not reported	Region ID:	Headquarters
Complete Date:	1993-03-01 00:00:00	Substance Code:	SAS
Rank Value:	0	Cleanup Flag:	False
Updated By:	kpd	Update Date:	1995-09-05 00:00:00
Created By:	Not reported	Create Date:	2002-12-17 08:50:22.
Employee Id:	301		
Comments :	Not reported		

Administrative Action: SITE EVALUATION
Admin Action Category: Not reported
Admin Flag: True
Admin Action Code Flag: False
Admin Action : SITE EVALUATION

Admin ID:	722833	Action ID:	9437
Agency ID :	Dept Of Environmental Quality	Start Date:	1993-03-02 00:00:00
Further Action:	Not reported	Region ID:	Headquarters
Complete Date:	1993-03-03 00:00:00	Substance Code:	SAS
Rank Value:	0	Cleanup Flag:	False
Updated By:	kpd	Update Date:	1995-09-05 00:00:00
Created By:	Not reported	Create Date:	2002-12-17 08:50:22.
Employee Id:	301		
Comments :	Not reported		

Administrative Action: Listing Review completed
Admin Action Category: Not reported
Admin Flag: True
Admin Action Code Flag: False
Admin Action : Listing Review completed

Admin ID:	722834	Action ID:	9496
Agency ID :	Dept Of Environmental Quality	Start Date:	1993-03-04 00:00:00
Further Action:	Low	Region ID:	Headquarters
Complete Date:	1993-03-04 00:00:00	Substance Code:	SAS
Rank Value:	0	Cleanup Flag:	False
Updated By:	jmc	Update Date:	1997-10-23 00:00:00
Created By:	Not reported	Create Date:	2002-12-17 08:50:22.
Employee Id:	301		
Comments :	Not reported		

Administrative Action: State Basic Preliminary Assessment recommended (PA)
Admin Action Category: Not reported
Admin Flag: True
Admin Action Code Flag: False
Admin Action : State Basic Preliminary Assessment recommended (PA)

CS SEEDS (Continued) **S103842294**

Admin ID:	716499	Action ID:	9424
Agency ID :	Dept Of Environmental Quality	Start Date:	1993-03-12 00:00:00
Further Action:	Not reported	Region ID:	Headquarters
Complete Date:	Not reported	Substance Code:	SAS
Rank Value:	0	Cleanup Flag:	False
Updated By:	kpd	Update Date:	1995-09-05 00:00:00
Created By:	Not reported	Create Date:	2002-12-17 08:50:22.
Employee Id:	301		
Comments :	Not reported		
Administrative Action:	Site added to database		
Admin Action Category:	Not reported		
Admin Flag:	True		
Admin Action Code Flag:	False		
Admin Action :	Site added to database		

Admin ID:	720240	Action ID:	9449
Agency ID :	Dept Of Environmental Quality	Start Date:	1993-03-03 00:00:00
Further Action:	Not reported	Region ID:	Headquarters
Complete Date:	Not reported	Substance Code:	SAS
Rank Value:	0	Cleanup Flag:	False
Updated By:	kpd	Update Date:	1995-09-05 00:00:00
Created By:	Not reported	Create Date:	2002-12-17 08:50:22.
Employee Id:	301		
Comments :	Not reported		
Administrative Action:	Insufficient information to list		
Admin Action Category:	Not reported		
Admin Flag:	True		
Admin Action Code Flag:	False		
Admin Action :	Insufficient information to list		

DISPOSAL:

Disposal ID:	Not reported	Feature ID:	Not reported
Medium :	Not reported		
Treatment :	Not reported		
Disposal Method:	Not reported		
Start Date:	Not reported	End Date:	Not reported
Disposal Flag:	Not reported	Disposal Qty:	Not reported
Unit Code:	Not reported		
Depth :	Not reported		
Monitor :	Not reported		
Manifest Num :	Not reported		
Removed By :	Not reported		
Loc Comments:	Not reported		
Disposal Sub ID:	Not reported		
Substance ID:	Not reported		
Created By:	Not reported		
Create Date:	Not reported		

FEATURE:

Feature Id :	Not reported
Site Id :	Not reported
Feature Code :	Not reported
Relative Position :	Not reported
Hazard Rel Id :	Not reported
Region Code :	Not reported
Lat Long Method :	Not reported
Lat Long Source :	Not reported

CS SEEDS (Continued) **S103842294**

County Code : Not reported
Refrence Id : Not reported
Twnshp Coord : Not reported
Township Zone : Not reported
Range Coord : Not reported
Range Zone : Not reported
Section Coord : Not reported
Qtr Section Coord : Not reported
Address : Not reported
Not reported
Zip Plus : Not reported
Lat/Long : Not reported
Lat/Lon Decimal : Not reported
Feature Size : Not reported
Est Accuracy : Not reported
Created On Date : Not reported
Created By Prgm : Not reported
Last Updated By : Not reported
Last Updated On : Not reported
Comment : Not reported

WELL:
Well ID: Not reported
Water Resource Code: Not reported
Effective Date: Not reported
Aquifer Code: Not reported
Ground Station Key: Not reported

OPERATIONS:
Operation Id : 132665
Operation Status : Active
Common Name : CS Seeds
Yrs of Operation : Not reported
Comments : Not reported
Updated By : jxh
Updated Date : 1995-03-20 00:00:00

Process Code ID: Not reported
Years Of Process: Not reported
Created By: Not reported
Created Date: Not reported

Operations SIC Id: Not reported
SIC Code: Not reported
Created By: Not reported
Created Date: Not reported

E23 **CS SEEDS** **FINDS** **1006858641**
ESE **12680 S PACIFIC HWY W** **110014211325**
> 1 **MONMOUTH, OR 97361**
22234 ft.

Site 2 of 3 in cluster E

Relative:
Lower

Actual:
204 ft.

CS SEEDS (Continued) **1006858641**

FINDS:
Other Pertinent Environmental Activity Identified at Site:
OREGON-DEPARTMENT OF ENVIRONMENTAL QUALITY

E24
ESE
> 1
22234 ft.

Relative:
Lower

Actual:
204 ft.

MOUNTAIN VIEW SEED FARMS INC **RCRA-SQG** **1000322017**
12680 S PACIFIC HWY W **FINDS** **ORD980515613**
MONMOUTH, OR 97361

Site 3 of 3 in cluster E

RCRAInfo:
Owner: HOWARD POPE
EPA ID: ORD980515613
Contact: CRAIG POPE
(503) 838-2306
Classification: Small Quantity Generator
TSDF Activities: Not reported
Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

F25
SE
> 1
23365 ft.

Relative:
Higher

Actual:
217 ft.

AGRIWELD INC **HSIS** **S105745471**
13000 S PACIFIC HWY W **AST** **N/A**
MONMOUTH, OR 97361

Site 1 of 4 in cluster F

HSIS:

Emergency Contact:	CRAIG POPE
Emergency Procedure: OFFICE	
Chemical Trade Name:	CARBON DIOXIDE
Manager Name:	CRAIG A POPE
Mailing Address:	13000 S PACIFIC HWY W MONMOUTH, OR 97361
Mailing County:	POLK
Day Phone:	5038383960
Employee File #:	049512
No. of Employees:	12
Placard:	Yes
Business Type:	AGRICULTURAL EQUIPMENT MFG & REPAIR
Sprinkler System:	No
Business Phone:	5038383960
Department Or Division Of Company:	Not reported
Facility Has Written Emergency Plan:	Yes
Company Name:	AGRIWELD INC
Fire Dept Code:	0472
Physical State :	Not reported
Physical State Of The Substance:	GAS
Average Amount Possessed During The Year Code:	04
Description Of The Avg Qnty Code:	50-199
Maximum Amount Possessed During The Year Code:	04
Description Of The Max Qnty Code:	50-199
Applicable Unit Of Measure Code:	1
Description Of The Unit Of Measure:	POUNDS

AGRIWELD INC (Continued) **S105745471**

Storage Container:	
Type Code:	L
Description:	CYLINDER
Pressure of Hazardous Substance Code:	2
Pressure Description:	GREATER THAN NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1013
Chemical Abstract Service Identifier Number:	124389
First Hazardous Classification Code For Chemical:	2.2
Hazard Classification 1 Of The Chemical:	NonFlammable Gases
Second Hazardous Classification Code For Chemical:	6.3
Hazard Classification 2 Of The Chemical:	Acute Health Hazard
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Pure
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	CARBON DIOXIDE
Contains 112R :	No
Contains EHS:	No
Contains 313:	No
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	333111
NAICS Desc 1:	FARM MACHINERY & EQP MFG
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	CRAIG POPE
Emergency Procedure: OFFICE	
Chemical Trade Name:	ACETYLENE
Manager Name:	CRAIG A POPE
Mailing Address:	13000 S PACIFIC HWY W MONMOUTH, OR 97361
Mailing County:	POLK
Day Phone:	5038383960
Employee File #:	049512
No. of Employees:	12
Placard:	Yes
Business Type:	AGRICULTURAL EQUIPMENT MFG & REPAIR
Sprinkler System:	No
Business Phone:	5038383960
Department Or Division Of Company:	Not reported
Facility Has Written Emergency Plan:	Yes
Company Name:	AGRIWELD INC
Fire Dept Code:	0472
Physical State :	Not reported
Physical State Of The Substance:	GAS
Average Amount Possessed During The Year Code:	10
Description Of The Avg Qnty Code:	200-499
Maximum Amount Possessed During The Year Code:	10

AGRIWELD INC (Continued) **S105745471**

Description Of The Max Qnty Code:	200-499
Applicable Unit Of Measure Code:	3
Description Of The Unit Of Measure:	CUBIC FEET
Storage Container:	
Type Code:	L
Description:	CYLINDER
Pressure of Hazardous Substance Code:	2
Pressure Description:	GREATER THAN NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1001
Chemical Abstract Service Identifier Number:	74862
First Hazardous Classification Code For Chemical:	2.1
Hazard Classification 1 Of The Chemical:	Flammable Gases
Second Hazardous Classification Code For Chemical:	6.3
Hazard Classification 2 Of The Chemical:	Acute Health Hazard
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Pure
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	ACETYLENE
Contains 112R :	No
Contains EHS:	No
Contains 313:	No
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	333111
NAICS Desc 1:	FARM MACHINERY & EQP MFG
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	CRAIG POPE
Emergency Procedure: OFFICE	
Chemical Trade Name:	ARGON
Manager Name:	CRAIG A POPE
Mailing Address:	13000 S PACIFIC HWY W MONMOUTH, OR 97361
Mailing County:	POLK
Day Phone:	5038383960
Employee File #:	049512
No. of Employees:	12
Placard:	Yes
Business Type:	AGRICULTURAL EQUIPMENT MFG & REPAIR
Sprinkler System:	No
Business Phone:	5038383960
Department Or Division Of Company:	Not reported
Facility Has Written Emergency Plan:	Yes
Company Name:	AGRIWELD INC
Fire Dept Code:	0472
Physical State :	Not reported
Physical State Of The Substance:	GAS

AGRIWELD INC (Continued) **S105745471**

Average Amount Possessed During The Year Code:	10
Description Of The Avg Qnty Code:	200-499
Maximum Amount Possessed During The Year Code:	10
Description Of The Max Qnty Code:	200-499
Applicable Unit Of Measure Code:	3
Description Of The Unit Of Measure:	CUBIC FEET
Storage Container:	
Type Code:	L
Description:	CYLINDER
Pressure of Hazardous Substance Code:	2
Pressure Description:	GREATER THAN NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1006
Chemical Abstract Service Identifier Number:	7440371
First Hazardous Classification Code For Chemical:	2.2
Hazard Classification 1 Of The Chemical:	NonFlammable Gases
Second Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 2 Of The Chemical:	Not reported
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Pure
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	ARGON
Contains 112R :	No
Contains EHS:	No
Contains 313:	No
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	333111
NAICS Desc 1:	FARM MACHINERY & EQP MFG
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	CRAIG POPE
Emergency Procedure: OFFICE	
Chemical Trade Name:	TRIMIX
Manager Name:	CRAIG A POPE
Mailing Address:	13000 S PACIFIC HWY W MONMOUTH, OR 97361
Mailing County:	POLK
Day Phone:	5038383960
Employee File #:	049512
No. of Employees:	12
Placard:	Yes
Business Type:	AGRICULTURAL EQUIPMENT MFG & REPAIR
Sprinkler System:	No
Business Phone:	5038383960
Department Or Division Of Company:	Not reported
Facility Has Written Emergency Plan:	Yes
Company Name:	AGRIWELD INC

AGRIWELD INC (Continued) **S105745471**

Fire Dept Code:	0472
Physical State :	Not reported
Physical State Of The Substance:	GAS
Average Amount Possessed During The Year Code:	10
Description Of The Avg Qnty Code:	200-499
Maximum Amount Possessed During The Year Code:	10
Description Of The Max Qnty Code:	200-499
Applicable Unit Of Measure Code:	3
Description Of The Unit Of Measure:	CUBIC FEET
Storage Container:	
Type Code:	L
Description:	CYLINDER
Pressure of Hazardous Substance Code:	2
Pressure Description:	GREATER THAN NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1956
Chemical Abstract Service Identifier Number:	7440597
First Hazardous Classification Code For Chemical:	2.2
Hazard Classification 1 Of The Chemical:	NonFlammable Gases
Second Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 2 Of The Chemical:	Not reported
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Mixture
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	Not reported
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	HELIUM
Contains 112R :	Not reported
Contains EHS:	Not reported
Contains 313:	Not reported
Fertilizer:	Not reported
Pesticide:	Not reported
NAICS Code 1:	333111
NAICS Desc 1:	FARM MACHINERY & EQP MFG
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	CRAIG POPE
Emergency Procedure: OFFICE	
Chemical Trade Name:	ARGON 75%/CARBON DIOXIDE 25%
Manager Name:	CRAIG A POPE
Mailing Address:	13000 S PACIFIC HWY W MONMOUTH, OR 97361
Mailing County:	POLK
Day Phone:	5038383960
Employee File #:	049512
No. of Employees:	12
Placard:	Yes
Business Type:	AGRICULTURAL EQUIPMENT MFG & REPAIR
Sprinkler System:	No
Business Phone:	5038383960

AGRIWELD INC (Continued) **S105745471**

Department Or Division Of Company:	Not reported
Facility Has Written Emergency Plan:	Yes
Company Name:	AGRIWELD INC
Fire Dept Code:	0472
Physical State :	Not reported
Physical State Of The Substance:	GAS
Average Amount Possessed During The Year Code:	20
Description Of The Avg Qnty Code:	1,000-4,999
Maximum Amount Possessed During The Year Code:	20
Description Of The Max Qnty Code:	1,000-4,999
Applicable Unit Of Measure Code:	3
Description Of The Unit Of Measure:	CUBIC FEET
Storage Container:	
Type Code:	L
Description:	CYLINDER
Pressure of Hazardous Substance Code:	2
Pressure Description:	GREATER THAN NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1956
Chemical Abstract Service Identifier Number:	7440371
First Hazardous Classification Code For Chemical:	2.2
Hazard Classification 1 Of The Chemical:	NonFlammable Gases
Second Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 2 Of The Chemical:	Not reported
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Mixture
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	Not reported
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	ARGON
Contains 112R :	Not reported
Contains EHS:	Not reported
Contains 313:	Not reported
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	333111
NAICS Desc 1:	FARM MACHINERY & EQP MFG
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported

Click this hyperlink while viewing on your computer to access
5 additional OR HSIS record(s) in the EDR Site Report.

AST:

Employer File Number:	049512
Hazardous Substance:	STOVE OIL #2
Reporting Quantities:	200-499
Quantity Units:	GALLONS
Physical State:	LIQUID
Storage 1:	ABOVEGROUND TANK

Employer File Number: 049512

AGRIWELD INC (Continued) **S105745471**

Hazardous Substance: PROPANE
Reporting Quantities: 200-499
Quantity Units: GALLONS
Physical State: LIQUID
Storage 1: ABOVEGROUND TANK

F26 **HIVELY POTTERY** **HSIS** **S105744388**
SE **13005 S PACIFIC HWY S** **AST** **N/A**
> 1 **MONMOUTH, OR 97361**
23376 ft.

Site 2 of 4 in cluster F

Relative:
Higher

Actual:
216 ft.

HSIS:

Emergency Contact:	ANDREW FOSTER
Emergency Procedure:	Not reported
Chemical Trade Name:	PROPANE
Manager Name:	DOUG HIVELY
Mailing Address:	PO BOX 175 MONMOUTH, OR 97361
Mailing County:	POLK
Day Phone:	5034249300
Employee File #:	008545
No. of Employees:	2
Placard:	No
Business Type:	POTTERY
Sprinkler System:	No
Business Phone:	5038383989
Department Or Division Of Company:	Not reported
Facility Has Written Emergency Plan:	No
Company Name:	HIVELY POTTERY
Fire Dept Code:	0472
Physical State :	Not reported
Physical State Of The Substance:	GAS
Average Amount Possessed During The Year Code:	10
Description Of The Avg Qnty Code:	200-499
Maximum Amount Possessed During The Year Code:	10
Description Of The Max Qnty Code:	200-499
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	
Type Code:	A
Description:	ABOVEGROUND TANK
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1075
Chemical Abstract Service Identifier Number:	74986
First Hazardous Classification Code For Chemical:	2.1
Hazard Classification 1 Of The Chemical:	Flammable Gases
Second Hazardous Classification Code For Chemical:	6.3
Hazard Classification 2 Of The Chemical:	Acute Health Hazard
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Pure
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported

HIVELY POTTERY (Continued) **S105744388**

Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	PROPANE
Contains 112R :	No
Contains EHS:	No
Contains 313:	No
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	327112
NAICS Desc 1:	VITRS CHINA/FINE ERTHNWRE & OTHER POTTERY
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported

AST:

Employer File Number:	008545
Hazardous Substance:	PROPANE
Reporting Quantities:	200-499
Quantity Units:	GALLONS
Physical State:	GAS
Storage 1:	ABOVEGROUND TANK

F27 **RICHARDS STORE** **LUST** **S100498733**
SE **13160 S PACIFIC HWY WEST(SUVER JNCT** **N/A**
> 1 **MONMOUTH, OR 97361**
23765 ft.

Site 3 of 4 in cluster F

Relative: Higher

LUST:

Facility ID:	27-91-4295
Region:	Western Region
Cleanup Start:	27-Sep-91
Closed Date:	Not reported
Cleanup Complete:	Not reported

Actual: 214 ft.

F28 **RICHARDS STORE** **FINDS** **1006862189**
SE **13160 S PACIFIC HWY W SUVER JCT** **110014248796**
> 1 **MONMOUTH, OR 97361**
23832 ft.

Site 4 of 4 in cluster F

Relative: Higher

FINDS:

Other Pertinent Environmental Activity Identified at Site:
OREGON-DEPARTMENT OF ENVIRONMENTAL QUALITY

Actual: 214 ft.

G29 **HOWARD RASMUSSEN** **FINDS** **1006860576**
SE **13340 S PACIFIC HWY W** **110014232357**
> 1 **MONMOUTH, OR 97361**
24456 ft.

Site 1 of 2 in cluster G

Relative: Higher

Actual: 216 ft.

HOWARD RASMUSSEN (Continued) **1006860576**

FINDS:
Other Pertinent Environmental Activity Identified at Site:
OREGON-DEPARTMENT OF ENVIRONMENTAL QUALITY

G30
SE
> 1
24456 ft.

Relative:
Higher

Actual:
216 ft.

HOWARD RASMUSSEN **LUST** **U000434656**
13340 S PACIFIC HWY W **UST** **N/A**
MONMOUTH, OR 97361

Site 2 of 2 in cluster G

LUST:

Facility ID:	27-90-4037
Region:	Western Region
Cleanup Start:	28-Feb-90
Closed Date:	15-Oct-91
Cleanup Complete:	15-Oct-91

UST:

Facility ID:	7574
Facility Telephone:	(503)745-5800
Permittee Name:	HOWARD RASMUSSEN, CURRENT OWNER
Active Tanks:	Not reported
Decommissioned Tanks:	2
Number of Permitted Tanks:	Not reported
Number of Upgraded Tanks:	2

31
ENE
> 1
24608 ft.

Relative:
Higher

Actual:
267 ft.

ROOF TOPS INC **HSIS** **S104065060**
8840 FRUIT FARM RD **N/A**
INDEPENDENCE, OR 97351

HSIS:

Emergency Contact:	NORMAN E FAIRCHILD
Emergency Procedure: Not reported	
Chemical Trade Name:	METAL READY
Manager Name:	NORM FAIRCHILD
Mailing Address:	8840 FRUIT FARM RD INDEPENDENCE, OR 97351
Mailing County:	POLK
Day Phone:	5038385521
Employee File #:	052632
No. of Employees:	0
Placard:	No
Business Type:	ROOFING CONTRACTOR
Sprinkler System:	No
Business Phone:	5038385521
Department Or Division Of Company:	Not reported
Facility Has Written Emergency Plan:	Not reported
Company Name:	ROOF TOPS INC
Fire Dept Code:	0472
Physical State :	Not reported
Physical State Of The Substance:	LIQUID
Average Amount Possessed During The Year Code:	03
Description Of The Avg Qnty Code:	20-49
Maximum Amount Possessed During The Year Code:	04
Description Of The Max Qnty Code:	50-199
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS

ROOF TOPS INC (Continued) **S104065060**

Storage Container:	
Type Code:	D
Description:	STEEL DRUM
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	Not reported
Chemical Abstract Service Identifier Number:	8032324
First Hazardous Classification Code For Chemical:	4.5
Hazard Classification 1 Of The Chemical:	Combustible Materials
Second Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 2 Of The Chemical:	Not reported
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Mixture
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	Not reported
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	MINERAL SPIRITS
Contains 112R :	Not reported
Contains EHS:	Not reported
Contains 313:	Not reported
Fertilizer:	Not reported
Pesticide:	Not reported
NAICS Code 1:	238160
NAICS Desc 1:	ROOFING CONTRACTORS
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	NORMAN E FAIRCHILD
Emergency Procedure: Not reported	
Chemical Trade Name:	BENCHMARK BASECOAT
Manager Name:	NORM FAIRCHILD
Mailing Address:	8840 FRUIT FARM RD INDEPENDENCE, OR 97351
Mailing County:	POLK
Day Phone:	5038385521
Employee File #:	052632
No. of Employees:	0
Placard:	No
Business Type:	ROOFING CONTRACTOR
Sprinkler System:	No
Business Phone:	5038385521
Department Or Division Of Company:	Not reported
Facility Has Written Emergency Plan:	Not reported
Company Name:	ROOF TOPS INC
Fire Dept Code:	0472
Physical State :	Not reported
Physical State Of The Substance:	LIQUID
Average Amount Possessed During The Year Code:	03
Description Of The Avg Qnty Code:	20-49
Maximum Amount Possessed During The Year Code:	10

ROOF TOPS INC (Continued) **S104065060**

Description Of The Max Qnty Code:	200-499
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	
Type Code:	D
Description:	STEEL DRUM
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	Not reported
Chemical Abstract Service Identifier Number:	21645512
First Hazardous Classification Code For Chemical:	9.0
Hazard Classification 1 Of The Chemical:	Misc.Haz. Materials
Second Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 2 Of The Chemical:	Not reported
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Mixture
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	Not reported
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	ALUMINA TRIHYDRATE
Contains 112R :	Not reported
Contains EHS:	Not reported
Contains 313:	Not reported
Fertilizer:	Not reported
Pesticide:	Not reported
NAICS Code 1:	238160
NAICS Desc 1:	ROOFING CONTRACTORS
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	NORMAN E FAIRCHILD
Emergency Procedure: Not reported	
Chemical Trade Name:	BENCHMARK TOPCOAT
Manager Name:	NORM FAIRCHILD
Mailing Address:	8840 FRUIT FARM RD INDEPENDENCE, OR 97351
Mailing County:	POLK
Day Phone:	5038385521
Employee File #:	052632
No. of Employees:	0
Placard:	No
Business Type:	ROOFING CONTRACTOR
Sprinkler System:	No
Business Phone:	5038385521
Department Or Division Of Company:	Not reported
Facility Has Written Emergency Plan:	Not reported
Company Name:	ROOF TOPS INC
Fire Dept Code:	0472
Physical State :	Not reported
Physical State Of The Substance:	LIQUID

ROOF TOPS INC (Continued) **S104065060**

Average Amount Possessed During The Year Code:	03
Description Of The Avg Qnty Code:	20-49
Maximum Amount Possessed During The Year Code:	10
Description Of The Max Qnty Code:	200-499
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	
Type Code:	D
Description:	STEEL DRUM
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	Not reported
Chemical Abstract Service Identifier Number:	21645512
First Hazardous Classification Code For Chemical:	9.0
Hazard Classification 1 Of The Chemical:	Misc.Haz. Materials
Second Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 2 Of The Chemical:	Not reported
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Mixture
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	Not reported
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	ALUMINA TRIHYDRATE
Contains 112R :	Not reported
Contains EHS:	Not reported
Contains 313:	Not reported
Fertilizer:	Not reported
Pesticide:	Not reported
NAICS Code 1:	238160
NAICS Desc 1:	ROOFING CONTRACTORS
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	NORMAN E FAIRCHILD
Emergency Procedure: Not reported	
Chemical Trade Name:	MAINTAIN
Manager Name:	NORM FAIRCHILD
Mailing Address:	8840 FRUIT FARM RD INDEPENDENCE, OR 97351
Mailing County:	POLK
Day Phone:	5038385521
Employee File #:	052632
No. of Employees:	0
Placard:	No
Business Type:	ROOFING CONTRACTOR
Sprinkler System:	No
Business Phone:	5038385521
Department Or Division Of Company:	Not reported
Facility Has Written Emergency Plan:	Not reported
Company Name:	ROOF TOPS INC

ROOF TOPS INC (Continued) **S104065060**

Fire Dept Code:	0472
Physical State :	Not reported
Physical State Of The Substance:	LIQUID
Average Amount Possessed During The Year Code:	04
Description Of The Avg Qnty Code:	50-199
Maximum Amount Possessed During The Year Code:	04
Description Of The Max Qnty Code:	50-199
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	
Type Code:	D
Description:	STEEL DRUM
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	Not reported
Chemical Abstract Service Identifier Number:	13463677
First Hazardous Classification Code For Chemical:	9.0
Hazard Classification 1 Of The Chemical:	Misc.Haz. Materials
Second Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 2 Of The Chemical:	Not reported
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Mixture
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	TITANIUM DIOXIDE
Contains 112R :	No
Contains EHS:	No
Contains 313:	No
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	238160
NAICS Desc 1:	ROOFING CONTRACTORS
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	NORMAN E FAIRCHILD
Emergency Procedure: Not reported	
Chemical Trade Name:	PRIME TIME
Manager Name:	NORM FAIRCHILD
Mailing Address:	8840 FRUIT FARM RD INDEPENDENCE, OR 97351
Mailing County:	POLK
Day Phone:	5038385521
Employee File #:	052632
No. of Employees:	0
Placard:	No
Business Type:	ROOFING CONTRACTOR
Sprinkler System:	No
Business Phone:	5038385521

ROOF TOPS INC (Continued) **S104065060**

Department Or Division Of Company:	Not reported
Facility Has Written Emergency Plan:	Not reported
Company Name:	ROOF TOPS INC
Fire Dept Code:	0472
Physical State :	Not reported
Physical State Of The Substance:	LIQUID
Average Amount Possessed During The Year Code:	04
Description Of The Avg Qnty Code:	50-199
Maximum Amount Possessed During The Year Code:	04
Description Of The Max Qnty Code:	50-199
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	
Type Code:	D
Description:	STEEL DRUM
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	Not reported
Chemical Abstract Service Identifier Number:	1317653
First Hazardous Classification Code For Chemical:	9.0
Hazard Classification 1 Of The Chemical:	Misc.Haz. Materials
Second Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 2 Of The Chemical:	Not reported
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Mixture
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	Not reported
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	CALCIUM CARBONATE
Contains 112R :	Not reported
Contains EHS:	Not reported
Contains 313:	Not reported
Fertilizer:	Not reported
Pesticide:	Not reported
NAICS Code 1:	238160
NAICS Desc 1:	ROOFING CONTRACTORS
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported

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3 additional OR HSIS record(s) in the EDR Site Report.

H32 SSE > 1 25944 ft. | **US ARMY NG CORVALLIS CAMP ADAIR**
39434 RIFLE RANGE RD
ADAIR VILLAGE, OR 97330 | **SHWS - ECSI** **1006854204**
FINDS **110014164171**

Site 1 of 2 in cluster H

Relative: Higher

Actual: 222 ft.

FINDS:
Other Pertinent Environmental Activity Identified at Site:
OREGON-DEPARTMENT OF ENVIRONMENTAL QUALITY

ECSI:

State ID Number:	1736	Brown ID	0
Study Area:	False		
Cerclis ID:	1211841050	Tax Lots:	Not reported
Size:	Not reported	NPL:	False
Orphan:	False	Region ID:	3
Lat/Long:	44.71720 / -123.264	Tax Lots:	Not reported
Township Coord.:	10	Township Zone:	S
Range Coord.:	5	Range Zone:	W
Section Coord.:	11	Qtr Section:	Not reported
Legislative :	11	Further Action:	260
FACA ID :	40307	Score Value:	0
Update Date :	2004-06-21 15:45:33.	Created Date:	dmc
Created Time :	/ /		
Updated By :	GWISTAR		

HAZ RELEASED:

Quant. Released:	Not reported
Date:	Not reported
Update Date:	Not reported
Update By:	Not reported
Substance ID :	Not reported
Code :	Not reported
Substance Name :	Not reported
Substance Abbrev. :	Not reported
Substance Categ ID :	Not reported
Substance Sub Categ :	Not reported
Category Level :	Not reported
Created By :	Not reported
Create Date :	Not reported
Substance Alias ID :	Not reported
Sub Alias Name :	Not reported
Rel Comment ID :	Not reported
Release Code :	Not reported
Release Comments :	Not reported
Sampling Result ID :	Not reported
Feature Id :	Not reported
Hazard Release Id :	Not reported
Medium Code Id :	Not reported
Substance Id :	Not reported
Unit Code :	Not reported
Observation :	Not reported
Owner Operator :	Not reported
Lab Data :	Not reported
Sample Depth :	Not reported
Start Date :	Not reported
End Date :	Not reported
Minimum Concentration :	Not reported
Max Concentration :	Not reported
Last Update By :	Not reported

US ARMY NG CORVALLIS CAMP ADAIR (Continued) **1006854204**

Last Updated On : Not reported
Sample Comment : Not reported

Alias Name: Not reported
Investigation Status: 208

NARR:
NARR ID: 5735287
NARR Code : Remedial Action
Created By: Not reported
Create Date: 2002-12-17 08:50:04.
Updated By: Not reported
Updated Date: 2002-12-17 08:50:04.
NARR Comments (9/12/95 DMC/SAS) Site added to CERCLIS on 1/11/95; federal facility.

ECWQ:
Owner Site Num: Not reported FACA Id : 40307
Site Name: US Army NG Corvallis Camp Adair
County Code : 2.00
Owner Name: Not reported
Owner Address: 39434 Rifle Range RD
Adair Village, 97330
Lat/Long 44.7172 / -123.2641
Owner Code: SUS

PERMIT:
Permit Number: Not reported Permit Type: Not reported
Permit Agency: Not reported
Permit Comments: Not reported

ADMIN ACT:
Admin ID: 715497 Action ID: 9424
Agency ID : Dept Of Environmental Quality Start Date: 1995-08-17 00:00:00
Further Action: Not reported Region ID: Headquarters
Complete Date: Not reported Substance Code: SAS
Rank Value: 0 Cleanup Flag: False
Updated By: dmc Update Date: 1995-08-17 00:00:00
Created By: Not reported Create Date: 2002-12-17 08:50:22.
Employee Id: 293
Comments : CERCLIS discovery date 1/11/95.
Administrative Action: Site added to database
Admin Action Category: Not reported
Admin Flag: True
Admin Action Code Flag: False
Admin Action : Site added to database

Admin ID: 715498 Action ID: 9508
Agency ID : Dept Of Environmental Quality Start Date: 1995-08-18 00:00:00
Further Action: Low Region ID: Headquarters
Complete Date: 1995-08-18 00:00:00 Substance Code: SAS
Rank Value: 0 Cleanup Flag: False
Updated By: GWISTAR Update Date: 2004-06-21 15:44:45.
Created By: Not reported Create Date: 2002-12-17 08:50:22.
Employee Id: 632
Comments : See also ECSI #1044
Administrative Action: Site Screening recommended (EV)
Admin Action Category: Not reported
Admin Flag: True
Admin Action Code Flag: False
Admin Action : Site Screening recommended (EV)

US ARMY NG CORVALLIS CAMP ADAIR (Continued) **1006854204**

Admin ID:	715845	Action ID:	9421
Agency ID :	Environmantal Protection Agency	Start Date:	1995-01-11 00:00:00
Further Action:	Not reported	Region ID:	Not reported
Complete Date:	Not reported	Substance Code:	Not reported
Rank Value:	0	Cleanup Flag:	False
Updated By:	dmc	Update Date:	1995-09-12 00:00:00
Created By:	Not reported	Create Date:	2002-12-17 08:50:22.
Employee Id:	Not reported		
Comments :	Not reported		
Administrative Action:		Site added to CERCLIS	
Admin Action Category:		Not reported	
Admin Flag:		True	
Admin Action Code Flag:		False	
Admin Action :		Site added to CERCLIS	

DISPOSAL:

Disposal ID:	Not reported	Feature ID:	Not reported
Medium :	Not reported		
Treatment :	Not reported		
Disposal Method:	Not reported		
Start Date:	Not reported	End Date:	Not reported
Disposal Flag:	Not reported	Disposal Qty:	Not reported
Unit Code:	Not reported		
Depth :	Not reported		
Monitor :	Not reported		
Manifest Num :	Not reported		
Removed By :	Not reported		
Loc Comments:	Not reported		
Disposal Sub ID:	Not reported		
Substance ID:	Not reported		
Created By:	Not reported		
Create Date:	Not reported		

FEATURE:

Feature Id :	Not reported
Site Id :	Not reported
Feature Code :	Not reported
Relative Position :	Not reported
Hazard Rel Id :	Not reported
Region Code :	Not reported
Lat Long Method :	Not reported
Lat Long Source :	Not reported
County Code :	Not reported
Refrence Id :	Not reported
Twnshp Coord :	Not reported
Township Zone :	Not reported
Range Coord :	Not reported
Range Zone :	Not reported
Section Coord :	Not reported
Qtr Section Coord :	Not reported
Address :	Not reported
	Not reported
Zip Plus :	Not reported
Lat/Long :	Not reported
Lat/Lon Decimal :	Not reported
Feature Size :	Not reported
Est Accuracy :	Not reported

US ARMY NG CORVALLIS CAMP ADAIR (Continued) **1006854204**

Created On Date : Not reported
Created By Prgm : Not reported
Last Updated By : Not reported
Last Updated On : Not reported
Comment : Not reported

WELL:
Well ID: Not reported
Water Resource Code: Not reported
Effective Date: Not reported
Aquifer Code: Not reported
Ground Station Key: Not reported

OPERATIONS:
Operation Id : Not reported
Operation Status : Not reported
Common Name : Not reported
Yrs of Operation : Not reported
Comments : Not reported
Updated By : Not reported
Updated Date : Not reported

Process Code ID: Not reported
Years Of Process: Not reported
Created By: Not reported
Created Date: Not reported

Operations SIC Id: Not reported
SIC Code: Not reported
Created By: Not reported
Created Date: Not reported

H33 **ORARNG** **HSIS** **S104332596**
SSE **39432 RIFLE RANGE RD** **AST** **N/A**
> 1 **CORVALLIS, OR 97330**
25977 ft.

Site 2 of 2 in cluster H

Relative: Higher

Actual: 222 ft.

HSIS:

Emergency Contact:	TERRY LARSON FACILITIES MGR
Emergency Procedure:	SHOP OFFICE
Chemical Trade Name:	CROSSBOW
Manager Name:	TERRY LARSON
Mailing Address:	PO BOX 14350 SALEM, OR 97309 - 5047
Mailing County:	MARION
Day Phone:	5417457408
Employee File #:	021555
No. of Employees:	2
Placard:	Yes
Business Type:	MILITARY TRAINING GROUND
Sprinkler System:	No
Business Phone:	5417457408
Department Or Division Of Company:	CAMP ADAIR RIFLE RANGE
Facility Has Written Emergency Plan:	Yes
Company Name:	ORARNG
Fire Dept Code:	0076
Physical State :	Not reported
Physical State Of The Substance:	LIQUID
Average Amount Possessed During The Year Code:	02
Description Of The Avg Qnty Code:	10-19

ORARNG (Continued) **S104332596**

Maximum Amount Possessed During The Year Code:	02
Description Of The Max Qnty Code:	10-19
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	
Type Code:	N
Description:	PLASTIC BOTTLE, JUG, BUCKET
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	3082
Chemical Abstract Service Identifier Number:	1929733
First Hazardous Classification Code For Chemical:	4.5
Hazard Classification 1 Of The Chemical:	Combustible Materials
Second Hazardous Classification Code For Chemical:	6.5
Hazard Classification 2 Of The Chemical:	Pesticide
Third Hazardous Classification Code For Chemical:	6.3
Hazard Classification 3 Of The Chemical:	Acute Health Hazard
Is Substance Pure Or Mixture:	Pure
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	62719-260
Most Hazardous Ingridient:	2,4D DICHLOROPHENOXY ACETIC ACID
Contains 112R :	No
Contains EHS:	No
Contains 313:	Yes
Fertilizer:	No
Pesticide:	Yes
NAICS Code 1:	928110
NAICS Desc 1:	NATIONAL SECURITY
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	TERRY LARSON FACILITIES MGR
Emergency Procedure: SHOP OFFICE	
Chemical Trade Name:	ROUNDUP ULTRAMAX RT
Manager Name:	TERRY LARSON
Mailing Address:	PO BOX 14350 SALEM, OR 97309 - 5047
Mailing County:	MARION
Day Phone:	5417457408
Employee File #:	021555
No. of Employees:	2
Placard:	Yes
Business Type:	MILITARY TRAINING GROUND
Sprinkler System:	No
Business Phone:	5417457408
Department Or Division Of Company:	CAMP ADAIR RIFLE RANGE
Facility Has Written Emergency Plan:	Yes
Company Name:	ORARNG
Fire Dept Code:	0076
Physical State :	Not reported

ORARNG (Continued) **S104332596**

Physical State Of The Substance:	LIQUID
Average Amount Possessed During The Year Code:	03
Description Of The Avg Qnty Code:	20-49
Maximum Amount Possessed During The Year Code:	03
Description Of The Max Qnty Code:	20-49
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	
Type Code:	N
Description:	PLASTIC BOTTLE, JUG, BUCKET
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	Not reported
Chemical Abstract Service Identifier Number:	38641940
First Hazardous Classification Code For Chemical:	6.3
Hazard Classification 1 Of The Chemical:	Acute Health Hazard
Second Hazardous Classification Code For Chemical:	6.5
Hazard Classification 2 Of The Chemical:	Pesticide
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Pure
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	524-512
Most Hazardous Ingridient:	ISOPROPYLAMINE SALT OF GLYPHOSATE
Contains 112R :	No
Contains EHS:	No
Contains 313:	No
Fertilizer:	No
Pesticide:	Yes
NAICS Code 1:	928110
NAICS Desc 1:	NATIONAL SECURITY
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	TERRY LARSON FACILITIES MGR
Emergency Procedure: SHOP OFFICE	
Chemical Trade Name:	DIESEL
Manager Name:	TERRY LARSON
Mailing Address:	PO BOX 14350
	SALEM, OR 97309 - 5047
Mailing County:	MARION
Day Phone:	5417457408
Employee File #:	021555
No. of Employees:	2
Placard:	Yes
Business Type:	MILITARY TRAINING GROUND
Sprinkler System:	No
Business Phone:	5417457408
Department Or Division Of Company:	CAMP ADAIR RIFLE RANGE
Facility Has Written Emergency Plan:	Yes

ORARNG (Continued) **S104332596**

Company Name:	ORARNG
Fire Dept Code:	0076
Physical State :	Not reported
Physical State Of The Substance:	LIQUID
Average Amount Possessed During The Year Code:	10
Description Of The Avg Qnty Code:	200-499
Maximum Amount Possessed During The Year Code:	10
Description Of The Max Qnty Code:	200-499
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	
Type Code:	A
Description:	ABOVEGROUND TANK
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Type of Code:	D
Description of Code:	STEEL DRUM
Pressure of Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Type of Code	Not reported
Description of Code:	Not reported
Pressure of Code:	Not reported
Pressure Description:	Not reported
Temperature of The Hazardous Substance Code:	Not reported
Temperature Description:	Not reported
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1202
Chemical Abstract Service Identifier Number:	68476346
First Hazardous Classification Code For Chemical:	3.3
Hazard Classification 1 Of The Chemical:	Flammable Liq. (73F<FP<141F)
Second Hazardous Classification Code For Chemical:	6.3
Hazard Classification 2 Of The Chemical:	Acute Health Hazard
Third Hazardous Classification Code For Chemical:	6.4
Hazard Classification 3 Of The Chemical:	Chronic Health Hazard
Is Substance Pure Or Mixture:	Mixture
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	PETROLEUM DISTILLATES
Contains 112R :	No
Contains EHS:	No
Contains 313:	Yes
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	928110
NAICS Desc 1:	NATIONAL SECURITY
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported

AST:
Employer File Number: 021555

ORARNG (Continued) **S104332596**

Hazardous Substance: DIESEL
Reporting Quantities: 200-499
Quantity Units: GALLONS
Physical State: LIQUID
Storage 1: ABOVEGROUND TANK
Storage 2: STEEL DRUM

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34 NNE > 1 26030 ft. | **NEXTEL WEST CORPORATION**
990 CUPIDS KNOLL RD
MONMOUTH, OR 97361 | **HSIS** | **S106900107**
N/A

Relative: Higher

Actual: 307 ft.

HSIS:

Emergency Contact:	NATIONAL OPERATIONS CENTER
Emergency Procedure:	Not reported
Chemical Trade Name:	LEAD ACID BATTERIES-GEL
Manager Name:	ED HALL
Mailing Address:	1255 TREAT BLVD STE 800 WALNUT CREEK, CA 94597
Mailing County:	CONTRA COS
Day Phone:	8002516769
Employee File #:	098791
No. of Employees:	0
Placard:	Yes
Business Type:	CELL SITE
Sprinkler System:	No
Business Phone:	9252792512
Department Or Division Of Company:	OR-336 MONMOUTH
Facility Has Written Emergency Plan:	No
Company Name:	NEXTEL WEST CORPORATION
Fire Dept Code:	0472
Physical State :	Not reported
Physical State Of The Substance:	SOLID
Average Amount Possessed During The Year Code:	10
Description Of The Avg Qnty Code:	200-499
Maximum Amount Possessed During The Year Code:	10
Description Of The Max Qnty Code:	200-499
Applicable Unit Of Measure Code:	1
Description Of The Unit Of Measure:	POUNDS
Storage Container:	
Type Code:	R
Description:	OTHER
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	2800
Chemical Abstract Service Identifier Number:	7664939
First Hazardous Classification Code For Chemical:	8.0
Hazard Classification 1 Of The Chemical:	Corrosives
Second Hazardous Classification Code For Chemical:	6.3
Hazard Classification 2 Of The Chemical:	Acute Health Hazard
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Mixture
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported

NEXTEL WEST CORPORATION (Continued) **S106900107**

Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	SULFURIC ACID
Contains 112R :	No
Contains EHS:	Yes
Contains 313:	Yes
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	517212
NAICS Desc 1:	CELLULAR & OTHER WIRELESS TELECOMMUNICATIO
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported

City	EDR ID	Site Name	Site Address	Zip	Database(s)
ADAIR VILLAGE	1006863579	ADAIR VILLAGE	3RD AND VANDENBERG AVE	97330	FINDS
ADAIR VILLAGE	S107134256	ADAIR VILLAGE CITY OF	7305 NE ARNOLD AVE	97330	HSIS
ADAIR VILLAGE	1004580056	ADAIR VILLAGE, CITY OF	NEXT TO BENTON COUNTY PARK	97330	FINDS
AIRLIE	1004581317	DUPONT AGRICULTURAL PRODUCTS	DUNN FOREST RD	97361	FINDS, FTTS INSP
CORVALLIS	S105523863		HWY 20 @ H P CO GATE	97330	OR HAZMAT
CORVALLIS	S105523886		HWY 20 MP 1.5	97330	OR HAZMAT
CORVALLIS	S107134240	HAM-MOCK & ASSOCIATES	5474A HWY 20	97330	HSIS
CORVALLIS	S105523899		HWY 344 PEORIA RD	97330	OR HAZMAT
CORVALLIS	S106165128		650 NW 4TH ST / HWY 99W	97330	OR HAZMAT
CORVALLIS	1007149378	LEWISBURG AREAWIDE GASOLINE RELEASE	HWY 99W & LEWISBURG RD.	97330	SHWS - ECSI, FINDS
CORVALLIS	S105523776		4800 BLK NE HWY 20	97330	OR HAZMAT
CORVALLIS	S105526810		COLORADO LAKE DR / HWY 34	97330	OR HAZMAT
CORVALLIS	1006866956	OWENS FARM	3525 NW HIGHWAY 99	97330	FINDS, LUST
CORVALLIS	S105525941		4250 NE HWY 20	97330	OR HAZMAT
CORVALLIS	S105745528	BEAVER PLUMBING & HEATING INC	5260 NW HWY 99 W	97330	HSIS
CORVALLIS	S105856097	TRILLIUM FAMILY SERVICES	4455 NE HWY 20	97330	LUST
CORVALLIS	S106426510	GOLF CITY PAR 3	2115 NE HWY 20	97330	HSIS
CORVALLIS	S106847906	VERIZON WIRELESS	1521 NE HWY 20	97330	HSIS, AST
CORVALLIS	1000378984	BOISE CASCADE CORP CORVALLIS	3/4 MILE CAMP ADAIR RD FROM HW	97330	RCRA-SQG
CORVALLIS	1004772085	USWCOM ADAIR CO (340)	NIGHTINGALE & LAUREL DR	97330	RCRA-SQG
CORVALLIS	1003880294	COFFIN BUTTE REGIONAL LDFL	OFF HWY 99 W 10 MI N CORVALLIS	97330	RCRA-SQG, FINDS, CERC-NFRAP
CORVALLIS	S106165181		RYLS LN 3/4 MI W IND HWY	97330	OR HAZMAT
INDEPENDENCE	S104060350	OAK KNOLL GOLF COURSE	6335 HWY 22	97351	HSIS, AST
INDEPENDENCE	1006855033	SOUTHERN PACIFIC RR - INDEPENDENCE	8S/4W/S21	97351	SHWS - ECSI, FINDS
INDEPENDENCE	S106165152		INTERSECTION OF S PAC HWY / PARKER	97351	OR HAZMAT
INDEPENDENCE	1008404898		1555 MONMOUTH STREET	97361	RCRA-SQG
INDEPENDENCE	S106497111	INDEPENDENCE - SOUTH WELLFIELD	WEST OF CORVALLIS RD, EAST OF EVERG	97351	SHWS - ECSI
INDEPENDENCE	1006854413	INDEPENDENCE - SOUTH WELLFIELD	WEST OF CORVALLIS RD, EAST OF EVERGREEN	97351	FINDS
INDEPENDENCE	S104053295	INDEPENDENCE CITY OF	WILLIAM / ASH	97351	HSIS, AST
MONMOUTH	S105523807		11000 BLOCK AIRLIE RD	97361	OR HAZMAT
MONMOUTH	U003999038	SCREEN PLANT	29910 CAMP ADAIR RD	97361	UST
MONMOUTH	S105523808		1/8 MILE E OF HWY 99W ON SUVER RD	97361	OR HAZMAT
MONMOUTH	U003999037	CONOCOPHILLIPS COMPANY - 253975	112 N PACIFIC HWY	97361	UST
MONMOUTH	U003999036	CHEVRON USA INC #99035	113 NORTH PACIFIC STREET	97361	UST
MONMOUTH	S103839792	CHEVRON #9035	113 N PACIFIC STREET	97361	LUST
MONMOUTH	S103839795	UNOCAL #3975	112 N PACIFIC HWY	97361	LUST
MONMOUTH	S104061506	PACIFIC HWY AUTO CARE LLC	112 N PACIFIC HWY	97361	HSIS
MONMOUTH	S105746323	R & D CONSTRUCTION INC	13005 S PACIFIC HWY BLDG B	97361	HSIS, AST
MONMOUTH	S107134250	DAVISON AUTO PARTS INC	373 N PACIFIC HWY	97361	HSIS
MONMOUTH	U000436755	BOISE CASCADE REGION OFFICE	450 N PACIFIC HWY	97361	UST
MONMOUTH	S105525436		PARKER RD / HWY 99	97361	OR HAZMAT
MONMOUTH	S104337282	WILLAMETTE WINDOW WASHING	17610 SHADY LN	97361	HSIS, AST
MONMOUTH	S106899948	MONMOUTH CITY OF	0 S WARREN/ASH CRK DR NW CORNER	97361	HSIS, AST

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that this EDR report meets or exceeds the 90-day updating requirement of the ASTM standard.

FEDERAL RECORDS

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 07/01/05
Date Data Arrived at EDR: 11/02/05
Date Made Active in Reports: 12/07/05
Number of Days to Update: 35

Source: EPA
Telephone: N/A
Last EDR Contact: 11/02/05
Next Scheduled EDR Contact: 01/30/06
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 8
Telephone: 303-312-6774

EPA Region 4
Telephone 404-562-8033

Proposed NPL: Proposed National Priority List Sites

Date of Government Version: 04/27/05
Date Data Arrived at EDR: 11/02/05
Date Made Active in Reports: 12/07/05
Number of Days to Update: 35

Source: EPA
Telephone: N/A
Last EDR Contact: 11/02/05
Next Scheduled EDR Contact: 01/30/06
Data Release Frequency: Quarterly

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 07/01/05
Date Data Arrived at EDR: 11/02/05
Date Made Active in Reports: 12/07/05
Number of Days to Update: 35

Source: EPA
Telephone: N/A
Last EDR Contact: 11/02/05
Next Scheduled EDR Contact: 01/30/06
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/91
Date Data Arrived at EDR: 02/02/94
Date Made Active in Reports: 03/30/94
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/22/05
Next Scheduled EDR Contact: 11/21/05
Data Release Frequency: No Update Planned

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 09/19/05
Date Data Arrived at EDR: 10/21/05
Date Made Active in Reports: 10/27/05
Number of Days to Update: 6

Source: EPA
Telephone: 703-413-0223
Last EDR Contact: 10/21/05
Next Scheduled EDR Contact: 12/19/05
Data Release Frequency: Quarterly

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

Date of Government Version: 08/22/05
Date Data Arrived at EDR: 09/20/05
Date Made Active in Reports: 10/27/05
Number of Days to Update: 37

Source: EPA
Telephone: 703-413-0223
Last EDR Contact: 09/20/05
Next Scheduled EDR Contact: 12/19/05
Data Release Frequency: Quarterly

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 10/13/05
Date Data Arrived at EDR: 10/27/05
Date Made Active in Reports: 12/07/05
Number of Days to Update: 41

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 09/06/05
Next Scheduled EDR Contact: 01/16/06
Data Release Frequency: Quarterly

RCRA: Resource Conservation and Recovery Act Information

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS). The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 10/14/05
Date Data Arrived at EDR: 10/27/05
Date Made Active in Reports: 12/07/05
Number of Days to Update: 41

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 10/27/05
Next Scheduled EDR Contact: 12/26/05
Data Release Frequency: Quarterly

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/04
Date Data Arrived at EDR: 01/27/05
Date Made Active in Reports: 03/24/05
Number of Days to Update: 56

Source: National Response Center, United States Coast Guard
Telephone: 202-260-2342
Last EDR Contact: 01/27/05
Next Scheduled EDR Contact: 10/24/05
Data Release Frequency: Annually

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/27/05
Date Data Arrived at EDR: 10/18/05
Date Made Active in Reports: 12/07/05
Number of Days to Update: 50

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 10/18/05
Next Scheduled EDR Contact: 01/16/06
Data Release Frequency: Annually

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 08/02/05
Date Data Arrived at EDR: 08/12/05
Date Made Active in Reports: 10/06/05
Number of Days to Update: 55

Source: Environmental Protection Agency
Telephone: 703-603-8867
Last EDR Contact: 07/05/05
Next Scheduled EDR Contact: 01/02/06
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 01/10/05
Date Data Arrived at EDR: 02/11/05
Date Made Active in Reports: 04/06/05
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 703-603-8867
Last EDR Contact: 01/03/05
Next Scheduled EDR Contact: 10/03/05
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 10/01/03
Date Data Arrived at EDR: 11/12/03
Date Made Active in Reports: 11/21/03
Number of Days to Update: 9

Source: USGS
Telephone: 703-692-8801
Last EDR Contact: 08/09/05
Next Scheduled EDR Contact: 11/07/05
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/04
Date Data Arrived at EDR: 06/29/05
Date Made Active in Reports: 08/08/05
Number of Days to Update: 40

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 06/29/05
Next Scheduled EDR Contact: 10/03/05
Data Release Frequency: Varies

US BROWNFIELDS: A Listing of Brownfields Sites

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 08/18/05
Date Data Arrived at EDR: 08/18/05
Date Made Active in Reports: 10/06/05
Number of Days to Update: 49

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 08/11/05
Next Scheduled EDR Contact: 12/12/05
Data Release Frequency: Semi-Annually

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/14/04
Date Data Arrived at EDR: 02/15/05
Date Made Active in Reports: 04/25/05
Number of Days to Update: 69

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 01/27/05
Next Scheduled EDR Contact: 10/24/05
Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 06/08/05
Date Data Arrived at EDR: 10/20/05
Date Made Active in Reports: 12/07/05
Number of Days to Update: 48

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 10/06/05
Next Scheduled EDR Contact: 01/02/06
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized. In 1978, 24 inactive uranium mill tailings sites in Oregon, Idaho, Wyoming, Utah, Colorado, New Mexico, Texas, North Dakota, South Dakota, Pennsylvania, and on Navajo and Hopi tribal lands, were targeted for cleanup by the Department of Energy.

Date of Government Version: 12/29/04
Date Data Arrived at EDR: 01/07/05
Date Made Active in Reports: 03/14/05
Number of Days to Update: 66

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 12/21/04
Next Scheduled EDR Contact: 12/19/05
Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/85
Date Data Arrived at EDR: 08/09/04
Date Made Active in Reports: 09/17/04
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 05/23/95
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/03
Date Data Arrived at EDR: 07/13/05
Date Made Active in Reports: 08/17/05
Number of Days to Update: 35

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 07/13/05
Next Scheduled EDR Contact: 12/19/05
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/02
Date Data Arrived at EDR: 04/27/04
Date Made Active in Reports: 05/21/04
Number of Days to Update: 24

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 07/18/05
Next Scheduled EDR Contact: 10/17/05
Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 07/15/05
Date Data Arrived at EDR: 07/25/05
Date Made Active in Reports: 08/22/05
Number of Days to Update: 28

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 06/20/05
Next Scheduled EDR Contact: 12/19/05
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

Date of Government Version: 07/15/05
Date Data Arrived at EDR: 07/25/05
Date Made Active in Reports: 08/22/05
Number of Days to Update: 28

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 06/20/05
Next Scheduled EDR Contact: 12/19/05
Data Release Frequency: Quarterly

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/03
Date Data Arrived at EDR: 01/03/05
Date Made Active in Reports: 01/25/05
Number of Days to Update: 22

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 11/29/04
Next Scheduled EDR Contact: 10/17/05
Data Release Frequency: Annually

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 08/30/05
Date Data Arrived at EDR: 09/13/05
Date Made Active in Reports: 10/27/05
Number of Days to Update: 44

Source: EPA
Telephone: 202-564-3887
Last EDR Contact: 09/13/05
Next Scheduled EDR Contact: 11/07/05
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 07/14/05
Date Data Arrived at EDR: 07/22/05
Date Made Active in Reports: 08/22/05
Number of Days to Update: 31

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 07/05/05
Next Scheduled EDR Contact: 10/03/05
Data Release Frequency: Quarterly

MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/12/05
Date Data Arrived at EDR: 09/27/05
Date Made Active in Reports: 11/14/05
Number of Days to Update: 48

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 09/27/05
Next Scheduled EDR Contact: 12/26/05
Data Release Frequency: Semi-Annually

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 09/29/05
Date Data Arrived at EDR: 10/04/05
Date Made Active in Reports: 11/14/05
Number of Days to Update: 41

Source: EPA
Telephone: N/A
Last EDR Contact: 08/29/05
Next Scheduled EDR Contact: 01/02/06
Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System
RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/95
Date Data Arrived at EDR: 07/03/95
Date Made Active in Reports: 08/07/95
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 09/06/05
Next Scheduled EDR Contact: 12/05/05
Data Release Frequency: No Update Planned

BRS: Biennial Reporting System
The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/03
Date Data Arrived at EDR: 06/17/05
Date Made Active in Reports: 08/04/05
Number of Days to Update: 48

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 06/17/05
Next Scheduled EDR Contact: 12/12/05
Data Release Frequency: Biennially

STATE AND LOCAL RECORDS

SHWS - ECSI: Environmental Cleanup Site Information System
Sites that are or may be contaminated and may require cleanup.

Date of Government Version: 08/01/05
Date Data Arrived at EDR: 08/16/05
Date Made Active in Reports: 09/14/05
Number of Days to Update: 29

Source: Department of Environmental Quality
Telephone: 503-229-6629
Last EDR Contact: 08/16/05
Next Scheduled EDR Contact: 11/14/05
Data Release Frequency: Quarterly

CRL: Confirmed Release List and Inventory
All facilities with a confirmed release.

Date of Government Version: 09/13/05
Date Data Arrived at EDR: 09/13/05
Date Made Active in Reports: 10/26/05
Number of Days to Update: 43

Source: Department of Environmental Quality
Telephone: 503-229-6170
Last EDR Contact: 09/13/05
Next Scheduled EDR Contact: 12/12/05
Data Release Frequency: Quarterly

SWF/LF: Solid Waste Facilities List
Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 10/04/05
Date Data Arrived at EDR: 10/04/05
Date Made Active in Reports: 10/26/05
Number of Days to Update: 22

Source: Department of Environmental Quality
Telephone: 503-229-6299
Last EDR Contact: 10/03/05
Next Scheduled EDR Contact: 12/19/05
Data Release Frequency: Semi-Annually

UIC: Underground Injection Control Program Database
DEQ's Underground Injection Control Program is authorized by the Environmental Protection Agency (EPA) to regulate all underground injection in Oregon to protect groundwater resources.

Date of Government Version: 10/24/05
Date Data Arrived at EDR: 10/24/05
Date Made Active in Reports: 11/08/05
Number of Days to Update: 15

Source: Department of Environmental Quality
Telephone: 503-229-5945
Last EDR Contact: 10/24/05
Next Scheduled EDR Contact: 01/23/06
Data Release Frequency: Varies

HIST LF: Old Closed SW Disposal Sites
A list of solid waste disposal sites that have been closed for a long while.

Date of Government Version: 04/01/00
Date Data Arrived at EDR: 07/08/03
Date Made Active in Reports: 07/18/03
Number of Days to Update: 10

Source: Department of Environmental Quality
Telephone: 503-229-5409
Last EDR Contact: 07/08/03
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

LUST: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 07/14/05
Date Data Arrived at EDR: 09/13/05
Date Made Active in Reports: 10/26/05
Number of Days to Update: 43

Source: Department of Environmental Quality
Telephone: 503-229-5790
Last EDR Contact: 09/13/05
Next Scheduled EDR Contact: 12/12/05
Data Release Frequency: Quarterly

AOC COL: Columbia Slough
Columbia Slough waterway boundaries.

Date of Government Version: N/A
Date Data Arrived at EDR: 10/03/02
Date Made Active in Reports: 10/22/02
Number of Days to Update: 19

Source: City of Portland Environmental Services
Telephone: 503-823-5310
Last EDR Contact: 08/26/02
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST: Underground Storage Tank Database
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 07/21/05
Date Data Arrived at EDR: 09/13/05
Date Made Active in Reports: 10/07/05
Number of Days to Update: 24

Source: Department of Environmental Quality
Telephone: 503-229-5815
Last EDR Contact: 09/13/05
Next Scheduled EDR Contact: 12/12/05
Data Release Frequency: Quarterly

AOC MU: East Multnomah County Area
Approximate extent of TSA VOC plume February , 2002

Date of Government Version: N/A
Date Data Arrived at EDR: 10/07/02
Date Made Active in Reports: 10/22/02
Number of Days to Update: 15

Source: City of Portland Environmental Services
Telephone: 503-823-5310
Last EDR Contact: 08/26/02
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

AST: Aboveground Storage Tanks
Aboveground storage tank locations reported to the Office of State Fire Marshal.

Date of Government Version: 08/01/05
Date Data Arrived at EDR: 09/14/05
Date Made Active in Reports: 10/07/05
Number of Days to Update: 23

Source: Office of State Fire Marshal
Telephone: 503-378-3473
Last EDR Contact: 08/29/05
Next Scheduled EDR Contact: 11/28/05
Data Release Frequency: Semi-Annually

SPILLS: Spill Data

Date of Government Version: 09/13/05
Date Data Arrived at EDR: 09/14/05
Date Made Active in Reports: 11/08/05
Number of Days to Update: 55

Source: Department of Environmental Quality
Telephone: 503-229-5731
Last EDR Contact: 09/12/05
Next Scheduled EDR Contact: 12/12/05
Data Release Frequency: Semi-Annually

HAZMAT: Hazmat/Incidents

Hazardous material incidents reported to the State Fire Marshal by emergency responders. The hazardous material may or may not have been released.

Date of Government Version: 08/31/04
Date Data Arrived at EDR: 10/12/04
Date Made Active in Reports: 11/05/04
Number of Days to Update: 24

Source: State Fire Marshal's Office
Telephone: 503-373-1540
Last EDR Contact: 08/22/05
Next Scheduled EDR Contact: 11/21/05
Data Release Frequency: Semi-Annually

ENG CONTROLS: Engineering Controls Recorded at ESCI Sites

Engineering controls are physical measures selected or approved by the Director for the purpose of preventing or minimizing exposure to hazardous substances. Engineering controls may include, but are not limited to, fencing, capping, horizontal or vertical barriers, hydraulic controls, and alternative water supplies.

Date of Government Version: 08/01/05
Date Data Arrived at EDR: 08/16/05
Date Made Active in Reports: 09/14/05
Number of Days to Update: 29

Source: Department of Environmental Quality
Telephone: 503-229-5193
Last EDR Contact: 08/16/05
Next Scheduled EDR Contact: 11/14/05
Data Release Frequency: Quarterly

INST CONTROL: Institutional Controls Recorded at ESCI Sites

An institutional control is a legal or administrative tool or action taken to reduce the potential for exposure to hazardous substances. Institutional controls may include, but are not limited to, use restrictions, environmental monitoring requirements, and site access and security measures.

Date of Government Version: 08/01/05
Date Data Arrived at EDR: 08/16/05
Date Made Active in Reports: 09/14/05
Number of Days to Update: 29

Source: Department of Environmental Quality
Telephone: 503-229-5193
Last EDR Contact: 08/16/05
Next Scheduled EDR Contact: 11/14/05
Data Release Frequency: Quarterly

VCS: Voluntary Cleanup Program Sites

Responsible parties have entered into an agreement with DEQ to voluntarily address contamination associated with their property.

Date of Government Version: 08/09/05
Date Data Arrived at EDR: 08/10/05
Date Made Active in Reports: 09/08/05
Number of Days to Update: 29

Source: DEQ
Telephone: 503-229-5256
Last EDR Contact: 08/01/05
Next Scheduled EDR Contact: 10/31/05
Data Release Frequency: Quarterly

DRYCLEANERS: Drycleaning Facilities

A listing of registered drycleaning facilities in Oregon.

Date of Government Version: 09/15/05
Date Data Arrived at EDR: 09/16/05
Date Made Active in Reports: 10/26/05
Number of Days to Update: 40

Source: Department of Environmental Quality
Telephone: 503-229-6783
Last EDR Contact: 09/12/05
Next Scheduled EDR Contact: 11/28/05
Data Release Frequency: Varies

BROWNFIELDS: Brownfields Projects
Brownfields investigations and/or cleanups that have been conducted in Oregon.

Date of Government Version: 09/13/05
Date Data Arrived at EDR: 09/14/05
Date Made Active in Reports: 10/26/05
Number of Days to Update: 42

Source: Department of Environmental Quality
Telephone: 503-229-6801
Last EDR Contact: 09/14/05
Next Scheduled EDR Contact: 12/12/05
Data Release Frequency: Semi-Annually

CDL: Uninhabitable Drug Lab Properties
The properties listed on these county pages have been declared by a law enforcement agency to be unfit for use due to meth lab and/or storage activities. The properties are considered uninhabitable until cleaned up by a state certified decontamination contractor and a certificate of fitness is issued by the Oregon Health Division.

Date of Government Version: 09/27/05
Date Data Arrived at EDR: 10/11/05
Date Made Active in Reports: 10/26/05
Number of Days to Update: 15

Source: Department of Consumer & Business Services
Telephone: 503-378-4133
Last EDR Contact: 09/29/05
Next Scheduled EDR Contact: 12/12/05
Data Release Frequency: Varies

HSIS: Hazardous Substance Information Survey
Companies in Oregon submitting the Hazardous Substance Information Survey and either reporting or not reporting hazardous substances.

Date of Government Version: 08/01/05
Date Data Arrived at EDR: 09/14/05
Date Made Active in Reports: 10/26/05
Number of Days to Update: 42

Source: State Fire Marshal's Office
Telephone: 503-373-1540
Last EDR Contact: 08/29/05
Next Scheduled EDR Contact: 11/28/05
Data Release Frequency: Semi-Annually

TRIBAL RECORDS

INDIAN RESERV: Indian Reservations
This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 10/01/03
Date Data Arrived at EDR: 11/12/03
Date Made Active in Reports: 11/21/03
Number of Days to Update: 9

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 08/09/05
Next Scheduled EDR Contact: 11/07/05
Data Release Frequency: Semi-Annually

INDIAN LUST: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 09/07/05
Date Data Arrived at EDR: 09/08/05
Date Made Active in Reports: 10/26/05
Number of Days to Update: 48

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 08/25/05
Next Scheduled EDR Contact: 11/21/05
Data Release Frequency: Varies

INDIAN UST: Underground Storage Tanks on Indian Land

Date of Government Version: 09/07/05
Date Data Arrived at EDR: 09/08/05
Date Made Active in Reports: 10/26/05
Number of Days to Update: 48

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 08/25/05
Next Scheduled EDR Contact: 11/21/05
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

EDR PROPRIETARY HISTORICAL DATABASES

Former Manufactured Gas (Coal Gas) Sites: The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. ©Copyright 1993 Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

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OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data
Source: PennWell Corporation
Telephone: (800) 823-6277
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Child Care Listings
Source: Employment Department
Telephone: 503-947-1420

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

CAMP ADAIR - NORTH
CAMP ADAIR - NORTH
MONMOUTH, OR 97361

TARGET PROPERTY COORDINATES

Latitude (North):	44.783699 - 44˚ 47' 1.3''
Longitude (West):	123.294998 - 123˚ 17' 42.0''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	476661.5
UTM Y (Meters):	4958748.0
Elevation:	205 ft. above sea level

EDR's GeoCheck Physical Setting Source Addendum has been developed to assist the environmental professional with the collection of physical setting source information in accordance with EPA's Standards and Practices for All Appropriate Inquiries (AAI) and ASTM E 1527-05, Section 8.2.3.

Section 8.2.3 requires that a current USGS 7.5 Minute Topographic Map (or equivalent, such as the USGS Digital Elevation Model) be reviewed. It also requires that one or more additional physical setting sources be sought when (1) conditions have been identified in which hazardous substances or petroleum products are likely to migrate to or from the property, and (2) more information than is provided in the current USGS 7.5 Minute Topographic Map (or equivalent) is generally obtained, pursuant to local good commercial or customary practice, to assess the impact of migration of recognized environmental conditions in connection with the property. Such additional physical setting sources generally include information about the topographic, hydrologic, hydrogeologic, and geologic characteristics of a site, and wells in the area.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata. EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

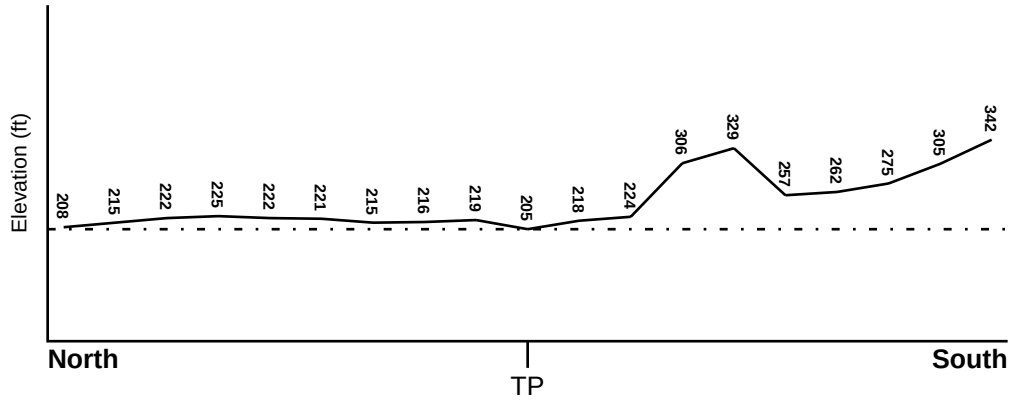
TOPOGRAPHIC INFORMATION

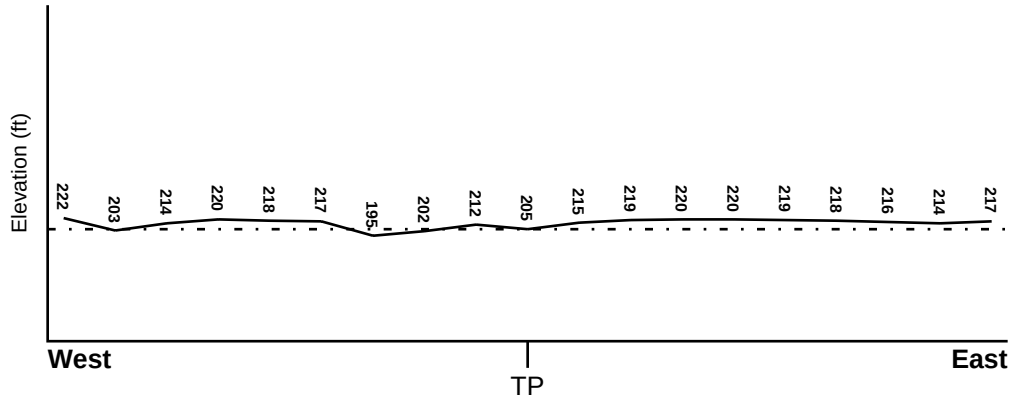
Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

USGS Topographic Map:	44123-G3 AIRLIE NORTH, OR
General Topographic Gradient:	General NW
Source:	USGS 7.5 min quad index

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES





Target Property Elevation: 205 ft.

0 1/2 1 Miles

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County	FEMA Flood Electronic Data
POLK, OR	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 41053C0200C

Additional Panels in search area:
41053C0140C
41053C0125C
41053C0138C
41053C0225C
4100080050C

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
AIRLIE NORTH	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era:	Cenozoic
System:	Tertiary
Series:	Eocene
Code:	Te *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name:	CHEHALIS
Soil Surface Texture:	silty clay loam
Hydrologic Group:	Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.
Soil Drainage Class:	Well drained. Soils have intermediate water holding capacity. Depth to water table is more than 6 feet.

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel:	MODERATE
Depth to Bedrock Min:	> 60 inches
Depth to Bedrock Max:	> 60 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)
1	0 inches	12 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 2.00 Min: 0.60	Max: 6.50 Min: 5.60
2	12 inches	52 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 2.00 Min: 0.60	Max: 7.30 Min: 5.60
3	52 inches	60 inches	stratified	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 2.00 Min: 0.60	Max: 7.30 Min: 5.60
4	60 inches	70 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 2.00 Min: 0.60	Max: 7.30 Min: 5.60

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: silt loam
fine sandy loam
very gravelly - sand
loam
gravelly - sandy loam

Surficial Soil Types: silt loam
fine sandy loam
very gravelly - sand
loam
gravelly - sandy loam

Shallow Soil Types: loam

Deeper Soil Types: sandy loam
loamy sand
silty clay
stratified
extremely gravelly - coarse sand
very gravelly - sandy loam

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

LOCAL / REGIONAL WATER AGENCY RECORDS

According to ASTM E 1527-05, Section 8.2.2, "To enhance and supplement the standard environmental record sources in 8.2.1, local records and/or additional state or tribal records shall be checked when, in the judgment of the environmental professional, such additional records (1) are reasonably ascertainable, (2) are sufficiently useful, accurate, and complete in light of the objective of the records review (see 8.1.1), and (3) are generally obtained, pursuant to local good commercial or customary practice, in initial environmental site assessments in the type of commercial real estate transaction involved." One of the records sources listed in 8.2.2 is water well information. Water well information can be used to assist the environmental professional in assessing sources that may impact groundwater flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	5.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	5.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	USGS3254127	1/2 - 1 Mile SW
2	USGS3254146	1/2 - 1 Mile NW
3	USGS3254161	1 - 2 Miles North
4	USGS3254121	1 - 2 Miles ESE
5	USGS3254093	1 - 2 Miles SW
6	USGS3254143	2 - 3 Miles WNW
7	USGS3254163	2 - 3 Miles NW
8	USGS3254173	2 - 3 Miles NE
9	USGS3254156	2 - 3 Miles ENE
10	USGS3254125	2 - 3 Miles WSW
11	USGS3254136	2 - 3 Miles West
12	USGS3254079	2 - 3 Miles SW
13	USGS3254188	2 - 3 Miles NW
14	USGS3254043	2 - 3 Miles SW
15	USGS3254041	2 - 3 Miles SW
A16	USGS3254151	3 - 4 Miles ENE
A17	USGS3254153	3 - 4 Miles ENE
18	USGS3254158	3 - 4 Miles ENE
19	USGS3254159	3 - 4 Miles WNW
21	USGS3254094	3 - 4 Miles ESE
22	USGS3254199	3 - 4 Miles NNE
23	USGS3254100	3 - 4 Miles ESE
24	USGS3254160	3 - 4 Miles ENE
25	USGS3254020	3 - 4 Miles SSW
26	USGS3254175	3 - 4 Miles ENE
27	USGS3254167	3 - 4 Miles ENE
28	USGS3254095	3 - 4 Miles ESE
B29	USGS3254064	3 - 4 Miles SW
B30	USGS3254060	3 - 4 Miles SW
31	USGS3254149	3 - 4 Miles ENE

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
32	USGS3254013	3 - 4 Miles SSE
33	USGS3254225	3 - 4 Miles North
34	USGS3254220	3 - 4 Miles NNW
35	USGS3254166	3 - 4 Miles ENE
36	USGS3254226	3 - 4 Miles North
37	USGS3254145	3 - 4 Miles East
38	USGS3254021	3 - 4 Miles SW
39	USGS3254115	3 - 4 Miles WSW
40	USGS3254022	3 - 4 Miles SW
42	USGS3254164	>4 Miles ENE
C44	USGS3254152	>4 Miles ENE
45	USGS3254222	>4 Miles NNW
46	USGS3254033	>4 Miles SE
47	USGS3254245	>4 Miles NNW
48	USGS3254239	>4 Miles NNW
49	USGS3253985	>4 Miles SSE
50	USGS3254253	>4 Miles NNW
51	USGS3253970	>4 Miles South
D54	USGS3254157	>4 Miles ENE
55	USGS3254016	>4 Miles SE
56	USGS3254217	>4 Miles NE
57	USGS3254205	>4 Miles NW
58	USGS3253975	>4 Miles SSE
60	USGS3254255	>4 Miles NNE
61	USGS3254238	>4 Miles NNW
E62	USGS3254208	>4 Miles NE
E63	USGS3254207	>4 Miles NE
64	USGS3254224	>4 Miles NE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

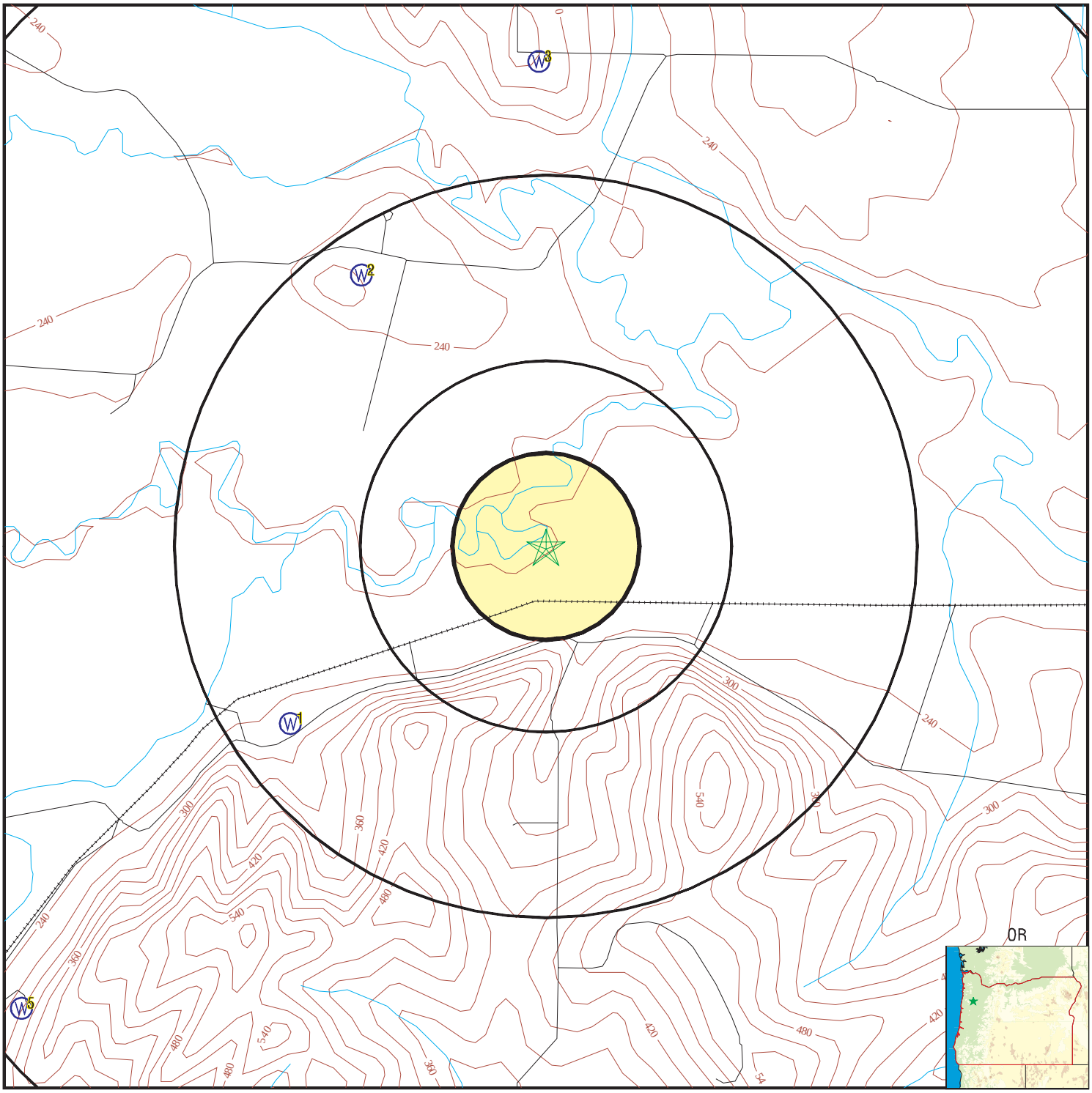
MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
20	OR00007775	3 - 4 Miles ESE
41	OR00007338	>4 Miles North
C43	OR00007625	>4 Miles ENE
D52	OR00007620	>4 Miles ENE
53	OR00007496	>4 Miles ENE
59	OR00007345	>4 Miles NE

PHYSICAL SETTING SOURCE MAP - 1575901.1s



County Boundary
Major Roads
Contour Lines
Earthquake epicenter, Richter 5 or greater
Water Wells
Public Water Supply Wells
Cluster of Multiple Icons

0 1/4 1/2 1 Miles

Groundwater Flow Direction
Indeterminate Groundwater Flow at Location
Groundwater Flow Varies at Location

N

TARGET PROPERTY:	Camp Adair - North	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - North	CONTACT:	Jennifer Lillis
CITY/STATE/ZIP:	Monmouth OR 97361	INQUIRY #:	1575901.1s
LAT/LONG:	44.7837 / 123.2950	DATE:	December 15, 2005 3:22 pm

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Map ID Direction Distance Elevation	Database	EDR ID Number
1 **SW** **1/2 - 1 Mile** **Higher**	**FED USGS**	**USGS3254127**

Agency cd:	USGS	Site no:	444637123182801
Site name:	09S/05W-21BDA		
Latitude:	444637		
Longitude:	1231828	Dec lat:	44.7767859
Dec lon:	-123.30898962	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	NESENWS21T09SR05WW
Location map:	AIRLIE NORTH	Map scale:	24000
Altitude:	248.00	Altitude method:	M
Altitude accuracy:	10.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Alluvial or marine terrace		
Site type:	Ground-water other than Spring	Date construction:	19710927
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	80.0	Hole depth:	80.0
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1971-09-27	Ground water data end date:	1971-09-27
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1971-09-27	24.00	

2 **NW** **1/2 - 1 Mile** **Higher**	**FED USGS**	**USGS3254146**

Agency cd:	USGS	Site no:	444740123181401
Site name:	09S/05W-16ABC		
Latitude:	444740		
Longitude:	1231814	Dec lat:	44.79428576
Dec lon:	-123.30510087	Coor meth:	M
Coor accr:	F	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	SWNWNES16T09SR05WW
Location map:	Not Reported	Map scale:	Not Reported

Altitude:	262.00	Altitude method:	M
Altitude accuracy:	10	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Alluvial or marine terrace		
Site type:	Ground-water other than Spring	Date construction:	19671223
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	SPENCER FORMATION		
Well depth:	535	Hole depth:	535
Source of depth data:	driller	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	1976-10-20
Water quality data end date:	1976-10-20	Water quality data count:	1
Ground water data begin date:	1976-10-20	Ground water data end date:	1976-10-20
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-10-20	104.87	

3
North
1 - 2 Miles
Higher

FED USGS **USGS3254161**

Agency cd:	USGS	Site no:	444810123173901
Site name:	09S/05W-10CBB		
Latitude:	444810		
Longitude:	1231739	Dec lat:	44.80261909
Dec lon:	-123.29537853	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	NWNWSWS10T09SR05WW
Location map:	AIRLIE NORTH	Map scale:	24000
Altitude:	321.00	Altitude method:	M
Altitude accuracy:	10.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Hilltop		
Site type:	Ground-water other than Spring	Date construction:	19590605
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	156	Hole depth:	156
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1976-09-01	Ground water data end date:	1976-09-01
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-09-01	62.54	

Note: The site had been pumped recently.

4
ESE **FED USGS** **USGS3254121**
1 - 2 Miles
Higher

Agency cd:	USGS	Site no:	444624123153401
Site name:	09S/05W-23DAB		
Latitude:	444624		
Longitude:	1231534	Dec lat:	44.77317518
Dec lon:	-123.26065509	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	NWNESES23T09SR05WW
Location map:	AIRLIE NORTH	Map scale:	24000
Altitude:	250.00	Altitude method:	M
Altitude accuracy:	10.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Hillside (slope)		
Site type:	Ground-water other than Spring	Date construction:	19570604
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	100	Hole depth:	100
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1957-06-04	Ground water data end date:	1957-06-04
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1957-06-04	60.00	

5
SW **FED USGS** **USGS3254093**
1 - 2 Miles
Higher

Agency cd:	USGS	Site no:	444557123192101
Site name:	09S/05W-29ABA		
Latitude:	444557		
Longitude:	1231921	Dec lat:	44.7656748
Dec lon:	-123.32371204	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	NENWNES29T09SR05WW
Location map:	AIRLIE NORTH	Map scale:	24000
Altitude:	383.00	Altitude method:	M
Altitude accuracy:	10.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Hillside (slope)		
Site type:	Ground-water other than Spring	Date construction:	19700928
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	95.0	Hole depth:	95.0
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1976-08-27	Ground water data end date:	1976-08-27
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-08-27	19.62	

Note: The site had been pumped recently.

6
WNW
2 - 3 Miles
Higher

FED USGS **USGS3254143**

Agency cd:	USGS	Site no:	444732123200401
Site name:	09S/05W-17BCB		
Latitude:	444732		
Longitude:	1232004	Dec lat:	44.79206334
Dec lon:	-123.33565711	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	NWSWNWS17T09SR05WW
Location map:	AIRLIE NORTH	Map scale:	24000
Altitude:	265.00	Altitude method:	M
Altitude accuracy:	10.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Hillside (slope)		
Site type:	Ground-water other than Spring	Date construction:	19590731
Date inventoried:	Not Reported	Mean greenwich time offset:	PST

Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	111	Hole depth:	111
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1976-09-03	Ground water data end date:	1976-09-03
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-09-03	11.53	

7
NW
2 - 3 Miles
Higher

FED USGS **USGS3254163**

Agency cd:	USGS	Site no:	444812123194201
Site name:	09S/05W-08CAB		
Latitude:	444812		
Longitude:	1231942	Dec lat:	44.80317438
Dec lon:	-123.32954601	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	NWNESWS08T09SR05WW
Location map:	AIRLIE NORTH	Map scale:	24000
Altitude:	223.00	Altitude method:	U
Altitude accuracy:	10.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Alluvial or marine terrace		
Site type:	Ground-water other than Spring	Date construction:	19630803
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	78.0	Hole depth:	78.0
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1976-09-02	Ground water data end date:	1976-09-02
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-09-02	24.23	

Note: The site had been pumped recently.

8
NE
2 - 3 Miles
Higher

FED USGS **USGS3254173**

Agency cd:	USGS	Site no:	444826123154201
Site name:	09S/05W-11ABD		
Latitude:	444826		
Longitude:	1231542	Dec lat:	44.80706373
Dec lon:	-123.26287782	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	SENWNES11T09SR05WW
Location map:	AIRLIE NORTH	Map scale:	24000
Altitude:	383.00	Altitude method:	M
Altitude accuracy:	10.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Hillside (slope)		
Site type:	Ground-water other than Spring	Date construction:	19610101
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	580	Hole depth:	580
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1976-08-31	Ground water data end date:	1976-08-31
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-08-31	14.83	

9
ENE
2 - 3 Miles
Higher

FED USGS **USGS3254156**

Agency cd:	USGS	Site no:	444759123151201
Site name:	09S/05W-12CBC		
Latitude:	444759		
Longitude:	1231512	Dec lat:	44.79956386
Dec lon:	-123.25454419	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	SWNWSWS12T09SR05WW
Location map:	AIRLIE NORTH	Map scale:	24000
Altitude:	265.00	Altitude method:	M
Altitude accuracy:	10.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Alluvial or marine terrace		
Site type:	Ground-water other than Spring	Date construction:	19630909
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	90.0	Hole depth:	90.0
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1976-09-01	Ground water data end date:	1976-09-01
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-09-01	25.24	

Note: The site had been pumped recently.

10
WSW
2 - 3 Miles
Higher

FED USGS **USGS3254125**

Agency cd:	USGS	Site no:	444631123202501
Site name:	09S/05W-19ADC		
Latitude:	444631		
Longitude:	1232025	Dec lat:	44.77511902
Dec lon:	-123.34149036	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	SWSENES19T09SR05WW
Location map:	AIRLIE NORTH	Map scale:	24000
Altitude:	223.00	Altitude method:	M
Altitude accuracy:	10.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Valley flat		
Site type:	Ground-water other than Spring	Date construction:	19540101
Date inventoried:	Not Reported	Mean greenwich time offset:	PST

Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	40.0	Hole depth:	40.0
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1976-09-03	Ground water data end date:	1976-09-03
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-09-03	13.44	

Note: The site had been pumped recently.

11
West
2 - 3 Miles
Higher

FED USGS **USGS3254136**

Agency cd:	USGS	Site no:	444717123204001
Site name:	09S/05W-18DBB		
Latitude:	444717		
Longitude:	1232040	Dec lat:	44.78789664
Dec lon:	-123.3456573	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	NWNWSES18T09SR05WW
Location map:	AIRLIE NORTH	Map scale:	24000
Altitude:	265.00	Altitude method:	M
Altitude accuracy:	10.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Alluvial or marine terrace		
Site type:	Ground-water other than Spring	Date construction:	19650604
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	93.0	Hole depth:	93.0
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1976-09-03	Ground water data end date:	1976-09-03
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-09-03	10.87	

12
SW
2 - 3 Miles
Higher

FED USGS **USGS3254079**

Agency cd:	USGS	Site no:	444540123202601
Site name:	09S/05W-30ADC		
Latitude:	444540		
Longitude:	1232026	Dec lat:	44.76095249
Dec lon:	-123.34176796	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	SWSENES30T09SR05WW
Location map:	AIRLIE NORTH	Map scale:	24000
Altitude:	256.00	Altitude method:	M
Altitude accuracy:	10.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Alluvial or marine terrace		
Site type:	Ground-water other than Spring	Date construction:	19760831
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	TYEE FORMATION		
Well depth:	103	Hole depth:	103
Source of depth data:	driller	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	1976-10-20
Water quality data end date:	1976-10-20	Water quality data count:	1
Ground water data begin date:	1976-09-09	Ground water data end date:	1976-09-09
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-09-09	10.91	

13
NW
2 - 3 Miles
Higher

FED USGS **USGS3254188**

Agency cd:	USGS	Site no:	444853123195801
Site name:	09S/05W-05CBD		
Latitude:	444853		
Longitude:	1231958	Dec lat:	44.81456312
Dec lon:	-123.33399071	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	SENWSWS05T09SR05WW
Location map:	AIRLIE NORTH	Map scale:	24000
Altitude:	315.00	Altitude method:	M
Altitude accuracy:	10.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Hillside (slope)		
Site type:	Ground-water other than Spring	Date construction:	19610901
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	73.0	Hole depth:	73.0
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1976-09-03	Ground water data end date:	1976-09-03
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-09-03	18.16	

Note: The site had been pumped recently.

14
SW
2 - 3 Miles
Higher

FED USGS **USGS3254043**

Agency cd:	USGS	Site no:	444502123195101
Site name:	09S/05W-32BAC		
Latitude:	444502		
Longitude:	1231951	Dec lat:	44.75039711
Dec lon:	-123.33204537	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	SWNENWS32T09SR05WW
Location map:	AIRLIE NORTH	Map scale:	24000
Altitude:	250.00	Altitude method:	M
Altitude accuracy:	10.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Valley flat		
Site type:	Ground-water other than Spring	Date construction:	19590408
Date inventoried:	Not Reported	Mean greenwich time offset:	PST

Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	100	Hole depth:	100
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1976-08-27	Ground water data end date:	1976-08-27
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-08-27	16.25	

Note: The site had been pumped recently.

15
SW
2 - 3 Miles
Higher

FED USGS **USGS3254041**

Agency cd:	USGS	Site no:	444453123194201
Site name:	09S/05W-32BDA		
Latitude:	444453		
Longitude:	1231942	Dec lat:	44.74789715
Dec lon:	-123.3295453	Coor meth:	M
Coor accr:	F	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	NESENWS32T09SR05WW
Location map:	CORVALLIS	Map scale:	62500
Altitude:	310.00	Altitude method:	M
Altitude accuracy:	25.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Hillside (slope)		
Site type:	Ground-water other than Spring	Date construction:	19621012
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	66.0	Hole depth:	66.0
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1962-10-09	Ground water data end date:	1962-10-09
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1962-10-09	21.00	

A16
ENE
3 - 4 Miles
Higher

FED USGS **USGS3254151**

Agency cd:	USGS	Site no:	444745123140401
Site name:	09S/05W-13AAA		
Latitude:	444745		
Longitude:	1231404	Dec lat:	44.79567515
Dec lon:	-123.2356548	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	NWNWNWS13T09SR05WW
Location map:	MONMOUTH	Map scale:	24000
Altitude:	272.00	Altitude method:	M
Altitude accuracy:	05.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Hillside (slope)		
Site type:	Ground-water other than Spring	Date construction:	19660331
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	137	Hole depth:	137
Source of depth data:	Not Reported	Project number:	4741-07600
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1976-08-31	Ground water data end date:	1976-08-31
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-08-31	17.54	

A17
ENE
3 - 4 Miles
Higher

FED USGS **USGS3254153**

Agency cd:	USGS	Site no:	444747123140401
Site name:	09S/05W-12DDD		
Latitude:	444747		
Longitude:	1231404	Dec lat:	44.7962307
Dec lon:	-123.23565481	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	SESESES12T09SR05WW
Location map:	MONMOUTH	Map scale:	24000
Altitude:	280.00	Altitude method:	M
Altitude accuracy:	05.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Hillside (slope)		
Site type:	Ground-water other than Spring	Date construction:	19660518
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	ALLUVIUM		
Well depth:	80.0	Hole depth:	80.0
Source of depth data:	driller	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	1976-10-21
Water quality data end date:	1976-10-21	Water quality data count:	1
Ground water data begin date:	1976-08-31	Ground water data end date:	1976-08-31
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-08-31	11.66	

Note: The site had been pumped recently.

18
ENE
3 - 4 Miles
Higher

FED USGS **USGS3254158**

Agency cd:	USGS	Site no:	444801123140501
Site name:	09S/05W-12DAD		
Latitude:	444801		
Longitude:	1231405	Dec lat:	44.80011955
Dec lon:	-123.23593264	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	SENESES12T09SR05WW
Location map:	MONMOUTH	Map scale:	24000
Altitude:	306.00	Altitude method:	M
Altitude accuracy:	05.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Alluvial or marine terrace		
Site type:	Ground-water other than Spring	Date construction:	19660610
Date inventoried:	Not Reported	Mean greenwich time offset:	PST

Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	100	Hole depth:	100
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1966-06-08	Ground water data end date:	1966-06-08
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1966-06-08	14.00	

19
WNW
3 - 4 Miles
Higher

FED USGS **USGS3254159**

Agency cd:	USGS	Site no:	444801123211301
Site name:	09S/05W-07CBD		
Latitude:	444801		
Longitude:	1232113	Dec lat:	44.80011867
Dec lon:	-123.35482434	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	SENWSWS07T09SR05WW
Location map:	AIRLIE NORTH	Map scale:	24000
Altitude:	425.00	Altitude method:	M
Altitude accuracy:	10.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Hillside (slope)		
Site type:	Ground-water other than Spring	Date construction:	19730501
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	YAMHILL FORMATION		
Well depth:	185	Hole depth:	185
Source of depth data:	driller	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	1976-10-20
Water quality data end date:	1976-10-20	Water quality data count:	1
Ground water data begin date:	1976-09-02	Ground water data end date:	1976-09-02
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-09-02	66.35	

Note: The site had been pumped recently.

20
ESE
3 - 4 Miles
Higher

OR WELLS **OR00007775**

Well ID:	Not Reported		
Application Number:	G 10273	Certificate Number:	61755
Permit Number:	G 9631	Point of Division Num.:	1
Map Name:	9.00S 4.00W	Section:	24
Source:	Not Reported	Use:	Supplemental
List:	0	Station:	0
X Coordinate:	0	Y Coordinate:	0
Latitude:	0	Longitude:	0
Aquifer Type:	Not Reported	Data Source:	Not Reported
Water Use:	Not Reported	Altitude:	0
Well Type:	Not Reported	Depth:	0
Description:	Not Reported	County Code:	Not Reported
Water Level:	0		
Well:	0		

21
ESE
3 - 4 Miles
Higher

FED USGS **USGS3254094**

Agency cd:	USGS	Site no:	444558123140201
Site name:	09S/04W-30BBB		
Latitude:	444558		
Longitude:	1231402	Dec lat:	44.7659532
Dec lon:	-123.23509883	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	NWNWNWS30T09SR04WW
Location map:	MONMOUTH	Map scale:	24000
Altitude:	296.00	Altitude method:	M
Altitude accuracy:	5.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Hillside (slope)		
Site type:	Ground-water other than Spring	Date construction:	19660423
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	175	Hole depth:	175
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00

Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1966-04-23	Ground water data end date:	1966-04-23
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1966-04-23	30.00	

22
NNE
3 - 4 Miles
Higher

FED USGS **USGS3254199**

Agency cd:	USGS	Site no:	444924123153601
Site name:	09S/05W-02ABD		
Latitude:	444924		
Longitude:	1231536	Dec lat:	44.8231747
Dec lon:	-123.26121133	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	SENWNES02T09SR05WW
Location map:	AIRLIE NORTH	Map scale:	24000
Altitude:	370.00	Altitude method:	M
Altitude accuracy:	10.	Altitude datum:	NGVD29
Hydrologic:	Middle Willamette. Oregon. Area = 700 sq.mi.		
Topographic:	Upland draw		
Site type:	Ground-water other than Spring	Date construction:	19690821
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	323	Hole depth:	323
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1976-09-01	Ground water data end date:	1976-09-01
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-09-01	10.72	

23
ESE
3 - 4 Miles
Higher

FED USGS **USGS3254100**

Agency cd:	USGS	Site no:	444606123135601
Site name:	09S/04W-19CCC		
Latitude:	444606		
Longitude:	1231356	Dec lat:	44.76817542
Dec lon:	-123.23343216	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	SWSWSWS19T09SR04WW
Location map:	MONMOUTH	Map scale:	24000
Altitude:	239.00	Altitude method:	M
Altitude accuracy:	5.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Alluvial or marine terrace		
Site type:	Ground-water other than Spring	Date construction:	19670310
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	67.0	Hole depth:	67.0
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1976-09-28	Ground water data end date:	1976-09-28
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-09-28	27.21	

24
ENE
3 - 4 Miles
Higher

FED USGS **USGS3254160**

Agency cd:	USGS	Site no:	444807123140101
Site name:	09S/04W-07CBB		
Latitude:	444808.92		
Longitude:	1231406.20	Dec lat:	44.80247778
Dec lon:	-123.23505556	Coor meth:	G
Coor accr:	5	Latlong datum:	NAD83
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	Not Reported
Location map:	MONMOUTH	Map scale:	24000
Altitude:	305.00	Altitude method:	M
Altitude accuracy:	05	Altitude datum:	NGVD29
Hydrologic:	Middle Willamette. Oregon. Area = 700 sq.mi.		
Topographic:	Valley flat		
Site type:	Ground-water other than Spring	Date construction:	19790803
Date inventoried:	19920805	Mean greenwich time offset:	PST

Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Unconfined single aquifer		
Aquifer:	ALLUVIUM (QUATERNARY)		
Well depth:	79.00	Hole depth:	79.00
Source of depth data:	driller	Project number:	4741-36600
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	1993-07-26
Water quality data end date:	2002-08-21	Water quality data count:	5
Ground water data begin date:	1979-08-03	Ground water data end date:	2004-06-14
Ground water data count:	3		

Ground-water levels, Number of Measurements: 3

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
2004-06-14	36.44				
Note: Other conditions existed that would affect the measured water level.					
2002-08-21	37.80		1979-08-03	45.00	

25
SSW
3 - 4 Miles
Higher

FED USGS **USGS3254020**

Agency cd:	USGS	Site no:	444424123185901
Site name:	09S/05W-32DDD		
Latitude:	444424		
Longitude:	1231859	Dec lat:	44.73984175
Dec lon:	-123.31760056	Coor meth:	M
Coor accr:	F	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	SESESES32T09SR05W
Location map:	CORVALLIS	Map scale:	62500
Altitude:	310.00	Altitude method:	M
Altitude accuracy:	25.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Hillside (slope)		
Site type:	Ground-water other than Spring	Date construction:	19590720
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	40.0	Hole depth:	40.0
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1959-07-20	Ground water data end date:	1959-07-20
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1959-07-20	9.00	

26
ENE
3 - 4 Miles
Higher

FED USGS **USGS3254175**

Agency cd:	USGS	Site no:	444830123140601
Site name:	09S/05W-12AAD		
Latitude:	444830		
Longitude:	1231406	Dec lat:	44.80817503
Dec lon:	-123.23621053	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	SENENES12T09SR05WW
Location map:	MONMOUTH	Map scale:	24000
Altitude:	350.00	Altitude method:	M
Altitude accuracy:	05.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Hilltop		
Site type:	Ground-water other than Spring	Date construction:	19560907
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	120	Hole depth:	120
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1976-09-01	Ground water data end date:	1976-09-01
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-09-01	69.96	

27
ENE
3 - 4 Miles
Higher

FED USGS **USGS3254167**

Agency cd:	USGS	Site no:	444815123135501
Site name:	09S/04W-07BCD		
Latitude:	444815		
Longitude:	1231355	Dec lat:	44.80400842
Dec lon:	-123.23315485	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	SESWNWS07T09SR04WW
Location map:	MONMOUTH	Map scale:	24000
Altitude:	300.00	Altitude method:	M
Altitude accuracy:	05.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Undulating		
Site type:	Ground-water other than Spring	Date construction:	19660303
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	59.0	Hole depth:	59.0
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1976-09-10	Ground water data end date:	1976-09-10
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-09-10	28.35	

Note: The site had been pumped recently.

28
ESE
3 - 4 Miles
Higher

FED USGS **USGS3254095**

Agency cd:	USGS	Site no:	444559123134401
Site name:	09S/04W-30BBA		
Latitude:	444559		
Longitude:	1231344	Dec lat:	44.76623101
Dec lon:	-123.23009872	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	NENWNWS30T09SR04WW
Location map:	MONMOUTH	Map scale:	24000
Altitude:	243.00	Altitude method:	M
Altitude accuracy:	5.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Hillside (slope)		
Site type:	Ground-water other than Spring	Date construction:	19680330
Date inventoried:	Not Reported	Mean greenwich time offset:	PST

Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	104	Hole depth:	104
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1976-09-28	Ground water data end date:	1976-09-28
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-09-28	23.12	

B29
SW
3 - 4 Miles
Higher

FED USGS **USGS3254064**

Agency cd:	USGS	Site no:	444520123211101
Site name:	09S/05W-30CCA		
Latitude:	444520		
Longitude:	1232111	Dec lat:	44.75539691
Dec lon:	-123.35426818	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	NESWSWS30T09SR05WW
Location map:	AIRLIE NORTH	Map scale:	24000
Altitude:	340.00	Altitude method:	M
Altitude accuracy:	10.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Hillside (slope)		
Site type:	Ground-water other than Spring	Date construction:	19690917
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	61.0	Hole depth:	61.0
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1976-08-27	Ground water data end date:	1976-08-27
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-08-27	21.78	

Note: The site had been pumped recently.

B30
SW
3 - 4 Miles
Higher

FED USGS **USGS3254060**

Agency cd:	USGS	Site no:	444517123210901
Site name:	09S/05W-30CCD		
Latitude:	444517		
Longitude:	1232109	Dec lat:	44.75456359
Dec lon:	-123.3537126	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	SESWSWS30T09SR05WW
Location map:	AIRLIE NORTH	Map scale:	24000
Altitude:	382.00	Altitude method:	A
Altitude accuracy:	10.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Hillside (slope)		
Site type:	Ground-water other than Spring	Date construction:	19750719
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	70.0	Hole depth:	70.0
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1976-08-27	Ground water data end date:	1976-08-27
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-08-27	38.92	

Note: The site had been pumped recently.

31
ENE
3 - 4 Miles
Higher

FED USGS **USGS3254149**

Agency cd:	USGS	Site no:	444744123132401
Site name:	09S/04W-18ABB		
Latitude:	444744.41		
Longitude:	1231324.16	Dec lat:	44.79551134
Dec lon:	-123.22458786	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	NWNWNES18 T0900SR0400WW
Location map:	MONMOUTH	Map scale:	24000
Altitude:	240	Altitude method:	M
Altitude accuracy:	5	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Hillside (slope)		
Site type:	Ground-water other than Spring	Date construction:	19820920
Date inventoried:	19961122	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	120	Hole depth:	120
Source of depth data:	driller	Project number:	4741-16800
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

32
SSE **FED USGS** **USGS3254013**
3 - 4 Miles
Higher

Agency cd:	USGS	Site no:	444407123160801
Site name:	10S/05W-02BAC		
Latitude:	444407		
Longitude:	1231608	Dec lat:	44.7351199
Dec lon:	-123.27009943	Coor meth:	M
Coor accr:	F	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	SWNENWS02T10SR05WW
Location map:	CORVALLIS	Map scale:	62500
Altitude:	210.00	Altitude method:	M
Altitude accuracy:	25.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Valley flat		
Site type:	Ground-water other than Spring	Date construction:	19581027
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	83.0	Hole depth:	83.0
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00

Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1958-10-27	Ground water data end date:	1958-10-27
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1958-10-27	18.00	

33
North
3 - 4 Miles
Higher

FED USGS **USGS3254225**

Agency cd:	USGS	Site no:	445015123175101
Site name:	08S/05W-33AAD		
Latitude:	445015		
Longitude:	1231751	Dec lat:	44.83734095
Dec lon:	-123.2987124	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	SENENES33T08SR05WW
Location map:	AIRLIE NORTH	Map scale:	24000
Altitude:	685.00	Altitude method:	M
Altitude accuracy:	10.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Hillside (slope)		
Site type:	Ground-water other than Spring	Date construction:	19751104
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	258	Hole depth:	258
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1975-11-04	Ground water data end date:	1975-11-04
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1975-11-04	109.00	

34
NNW
3 - 4 Miles
Higher

FED USGS **USGS3254220**

Agency cd:	USGS	Site no:	445011123184701
Site name:	08S/05W-33BBD		
Latitude:	445011		
Longitude:	1231847	Dec lat:	44.83622972
Dec lon:	-123.31426831	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	SENWNWS33T08SR05WW
Location map:	AIRLIE NORTH	Map scale:	24000
Altitude:	565.00	Altitude method:	M
Altitude accuracy:	10.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Hillside (slope)		
Site type:	Ground-water other than Spring	Date construction:	19660831
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	163	Hole depth:	163
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1976-08-04	Ground water data end date:	1976-08-04
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-08-04	65.56	

Note: The site had been pumped recently.

35
ENE
3 - 4 Miles
Higher

FED USGS **USGS3254166**

Agency cd:	USGS	Site no:	444815123132301
Site name:	09S/04W-07ACC		
Latitude:	444815		
Longitude:	1231323	Dec lat:	44.80400848
Dec lon:	-123.22426575	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	SWSWNES07T09SR04WW
Location map:	MONMOUTH	Map scale:	24000
Altitude:	272.00	Altitude method:	M
Altitude accuracy:	05.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Undulating		
Site type:	Ground-water other than Spring	Date construction:	19700703
Date inventoried:	Not Reported	Mean greenwich time offset:	PST

Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	140	Hole depth:	140
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1976-09-10	Ground water data end date:	1976-09-10
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-09-10	26.15	

Note: The site had been pumped recently.

36
North
3 - 4 Miles
Higher

FED USGS **USGS3254226**

Agency cd:	USGS	Site no:	445017123183201
Site name:	08S/05W-33BAB		
Latitude:	445017		
Longitude:	1231832	Dec lat:	44.83789641
Dec lon:	-123.31010156	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	NWNENWS33T08SR05WW
Location map:	AIRLIE NORTH	Map scale:	24000
Altitude:	602.00	Altitude method:	M
Altitude accuracy:	10.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Hillside (slope)		
Site type:	Ground-water other than Spring	Date construction:	19640107
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	164	Hole depth:	164
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1976-08-05	Ground water data end date:	1976-08-05
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-08-05	119.80	

37
East
3 - 4 Miles
Higher

FED USGS **USGS3254145**

Agency cd:	USGS	Site no:	444740123130001
Site name:	09S/04W-18AAB		
Latitude:	444740		
Longitude:	1231300	Dec lat:	44.7942864
Dec lon:	-123.21787658	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	NNNENES18T09SR04WW
Location map:	MONMOUTH	Map scale:	24000
Altitude:	250.00	Altitude method:	M
Altitude accuracy:	5.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Hilltop		
Site type:	Ground-water other than Spring	Date construction:	19620912
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	92.0	Hole depth:	92.0
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1976-09-28	Ground water data end date:	1976-09-28
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-09-28	19.85	

Note: The site had been pumped recently.

38
SW
3 - 4 Miles
Higher

FED USGS **USGS3254021**

Agency cd:	USGS	Site no:	444427123204101
Site name:	09S/05W-31DCB		
Latitude:	444427		
Longitude:	1232041	Dec lat:	44.74067488
Dec lon:	-123.34593456	Coor meth:	M
Coor accr:	F	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	NWSWSES31T09SR05WW
Location map:	CORVALLIS	Map scale:	62500
Altitude:	390.00	Altitude method:	M
Altitude accuracy:	25.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Hillside (slope)		
Site type:	Ground-water other than Spring	Date construction:	19630715
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	125	Hole depth:	125
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1963-07-15	Ground water data end date:	1963-07-15
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1963-07-15	30.00	

39
WSW
3 - 4 Miles
Higher

FED USGS **USGS3254115**

Agency cd:	USGS	Site no:	444619123221901
Site name:	09S/06W-24CBD		
Latitude:	444619		
Longitude:	1232219	Dec lat:	44.77178549
Dec lon:	-123.37315773	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	SENWSWS24T09SR06WW
Location map:	AIRLIE NORTH	Map scale:	24000
Altitude:	250.00	Altitude method:	M
Altitude accuracy:	10.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Alluvial or marine terrace		
Site type:	Ground-water other than Spring	Date construction:	19600701
Date inventoried:	Not Reported	Mean greenwich time offset:	PST

Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	70.0	Hole depth:	70.0
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1976-08-27	Ground water data end date:	1976-08-27
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-08-27	12.90	

40
SW
3 - 4 Miles
Higher

FED USGS **USGS3254022**

Agency cd:	USGS	Site no:	444427123204801
Site name:	09S/05W-31CDA		
Latitude:	444427		
Longitude:	1232048	Dec lat:	44.74067487
Dec lon:	-123.34787905	Coor meth:	M
Coor accr:	F	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	NESESWS31T09SR05WW
Location map:	CORVALLIS	Map scale:	62500
Altitude:	305.00	Altitude method:	M
Altitude accuracy:	25.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Hillside (slope)		
Site type:	Ground-water other than Spring	Date construction:	19630817
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	60.0	Hole depth:	60.0
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1963-08-15	Ground water data end date:	1963-08-15
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1963-08-15	26.00	

41
North
>4 Miles
Higher

OR WELLS **OR00007338**

Well ID:	Not Reported		
Application Number:	G 5388	Certificate Number:	45560
Permit Number:	G 5317	Point of Division Num.:	1
Map Name:	8.00S 5.00W	Section:	27
Source:	Not Reported	Use:	Irrigation
List:	0	Station:	0
X Coordinate:	0	Y Coordinate:	0
Latitude:	0	Longitude:	0
Aquifer Type:	Not Reported	Data Source:	Not Reported
Water Use:	Not Reported	Altitude:	0
Well Type:	Not Reported	Depth:	0
Description:	Not Reported	County Code:	Not Reported
Water Level:	0		
Well:	0		

42
ENE
>4 Miles
Higher

FED USGS **USGS3254164**

Agency cd:	USGS	Site no:	444813123125901
Site name:	09S/04W-07ADC		
Latitude:	444813		
Longitude:	1231259	Dec lat:	44.80345298
Dec lon:	-123.21759891	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	SWSENES07T09SR04WW
Location map:	MONMOUTH	Map scale:	24000
Altitude:	296.00	Altitude method:	M
Altitude accuracy:	05.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Hilltop		
Site type:	Ground-water other than Spring	Date construction:	19660819
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	148	Hole depth:	148
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00

Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1976-09-10	Ground water data end date:	1976-09-10
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-09-10	21.90	

Note: The site had been pumped recently.

C43
ENE
>4 Miles
Higher

OR WELLS **OR00007625**

Well ID:	Not Reported		
Application Number:	GR 576	Certificate Number:	0
Permit Number:	GR 549	Point of Division Num.:	1
Map Name:	9.00S 4.00W	Section:	8
Source:	Not Reported	Use:	Irrigation
List:	0	Station:	0
X Coordinate:	0	Y Coordinate:	0
Latitude:	0	Longitude:	0
Aquifer Type:	Not Reported	Data Source:	Not Reported
Water Use:	Not Reported	Altitude:	0
Well Type:	Not Reported	Depth:	0
Description:	Not Reported	County Code:	Not Reported
Water Level:	0		
Well:	0		

C44
ENE
>4 Miles
Higher

FED USGS **USGS3254152**

Agency cd:	USGS	Site no:	444747123124001
Site name:	09S/04W-08CCC		
Latitude:	444747		
Longitude:	1231240	Dec lat:	44.79623086
Dec lon:	-123.21232092	Coor meth:	M
Coor accr:	F	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	SWSWSWS08T09SR04WW
Location map:	MONMOUTH	Map scale:	24000
Altitude:	262.00	Altitude method:	M
Altitude accuracy:	05.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Alluvial or marine terrace		
Site type:	Ground-water other than Spring	Date construction:	19480101
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	120	Hole depth:	120
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00

Peak flow data count: 0
Water quality data end date:0000-00-00
Ground water data begin date: 1963-01-15
Ground water data count: 69

Water quality data begin date: 0000-00-00
Water quality data count: 0
Ground water data end date: 1981-10-15

Ground-water levels, Number of Measurements: 69

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1981-10-15	16.02				
Note: The site had been pumped recently.					
1981-04-02	9.92		1980-10-29	15.69	
1980-03-10	9.76		1978-09-27	15.30	
1978-07-10	14.01		1978-04-04	12.24	
1978-01-10	10.96		1977-09-28	21.38	
1977-09-27	17.07		1977-07-11	17.32	
1977-04-05	16.15		1977-03-07	15.49	
1977-01-04	15.62		1976-09-28	21.38	
1976-07-12	13.54		1976-04-07	9.32	
1976-01-06	10.59		1975-10-07	16.24	
1975-07-01	13.36		1975-04-01	9.26	
1975-01-14	10.14		1974-10-01	15.68	
1974-07-09	13.81		1973-11-05	15.43	
1973-07-13	15.94		1973-04-20	11.80	
1973-01-03	12.27		1972-09-28	15.52	
1972-08-02	14.96		1972-03-30	9.02	
1972-01-10	10.53		1971-10-06	15.21	
1971-07-06	12.88		1971-04-05	8.64	
1971-01-05	10.54		1970-10-06	16.61	
1970-07-07	17.38		1970-04-02	10.67	
1970-01-09	11.65		1969-10-02	16.18	
1969-07-02	14.44		1969-04-02	11.02	
1969-01-07	8.53		1968-10-02	15.87	
1968-07-02	14.58		1968-04-02	9.66	
1968-01-03	13.52		1967-10-11	17.39	
1967-09-22	17.20		1967-07-05	15.02	
1967-04-11	9.99		1967-01-19	10.63	
1966-10-11	18.55		1966-07-12	14.95	
1966-04-11	10.47		1966-01-11	11.84	
1965-10-05	16.84		1965-07-06	14.99	
1965-04-13	11.08		1965-01-07	10.45	
1964-10-13	17.70				
Note: The site had been pumped recently.					
1964-07-16	14.38		1964-04-14	10.66	
1964-01-16	10.07		1963-10-16	15.35	
1963-07-16	12.58		1963-04-02	9.90	
1963-01-15	11.85				

45
NNW
>4 Miles
Higher

FED USGS **USGS3254222**

Agency cd:	USGS	Site no:	445013123200701
Site name:	08S/05W-32BBC		
Latitude:	445013		
Longitude:	1232007	Dec lat:	44.8367851
Dec lon:	-123.33649106	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	SWNWNWS32T08SR05WW
Location map:	AIRLIE NORTH	Map scale:	24000
Altitude:	412.00	Altitude method:	M
Altitude accuracy:	10.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Hillside (slope)		
Site type:	Ground-water other than Spring	Date construction:	19700722
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	70.0	Hole depth:	70.0
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1976-08-04	Ground water data end date:	1976-08-04
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-08-04	50.62	

Note: The site had been pumped recently.

46
SE
>4 Miles
Higher

FED USGS **USGS3254033**

Agency cd:	USGS	Site no:	444441123132101
Site name:	09S/04W-31DBB		
Latitude:	444441		
Longitude:	1231321	Dec lat:	44.74456459
Dec lon:	-123.22370945	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	NWNWSES31T09SR04WW
Location map:	LEWISBURG	Map scale:	24000
Altitude:	214.00	Altitude method:	M
Altitude accuracy:	05.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Alluvial or marine terrace		
Site type:	Ground-water other than Spring	Date construction:	19670822
Date inventoried:	Not Reported	Mean greenwich time offset:	PST

Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	51.0	Hole depth:	51.0
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1976-09-14	Ground water data end date:	1976-09-14
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-09-14	6.70	

47
NNW
>4 Miles
Higher

FED USGS USGS3254245

Agency cd:	USGS	Site no:	445051123184801
Site name:	08S/05W-28BCC		
Latitude:	445051		
Longitude:	1231848	Dec lat:	44.84734072
Dec lon:	-123.31454624	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	SWSWNWS28T08SR05WW
Location map:	AIRLIE NORTH	Map scale:	24000
Altitude:	510.00	Altitude method:	M
Altitude accuracy:	10.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Hilltop		
Site type:	Ground-water other than Spring	Date construction:	19740715
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	118	Hole depth:	118
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1976-08-05	Ground water data end date:	1976-08-05
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-08-05	78.80	

48
NNW
>4 Miles
Higher

FED USGS **USGS3254239**

Agency cd:	USGS	Site no:	445041123193801
Site name:	08S/05W-29CAD		
Latitude:	445041		
Longitude:	1231938	Dec lat:	44.84456287
Dec lon:	-123.32843542	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	SENESWS29T08SR05WW
Location map:	AIRLIE NORTH	Map scale:	24000
Altitude:	317.00	Altitude method:	M
Altitude accuracy:	10.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Valley flat		
Site type:	Ground-water other than Spring	Date construction:	19710906
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	149	Hole depth:	149
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1976-08-04	Ground water data end date:	1976-08-04
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-08-04	24.23	

Note: The site had been pumped recently.

49
SSE
>4 Miles
Higher

FED USGS **USGS3253985**

Agency cd:	USGS	Site no:	444323123153201
Site name:	10S/05W-11AAB		
Latitude:	444323		
Longitude:	1231532	Dec lat:	44.72289786
Dec lon:	-123.26009919	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	Not Reported
Location map:	AIRLIE SOUTH	Map scale:	24000
Altitude:	205	Altitude method:	M
Altitude accuracy:	5	Altitude datum:	NGVD29
Hydrologic:	Not Reported		
Topographic:	Valley flat		
Site type:	Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Spring		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	Not Reported
Source of depth data:	Not Reported	Project number:	4741-16800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	1997-09-05
Water quality data end date:	1997-09-05	Water quality data count:	2
Ground water data begin date:	0000-00-00	Ground water data end date:	0000-00-00
Ground water data count:	0		

Ground-water levels, Number of Measurements: 0

50
NNW
>4 Miles
Higher

FED USGS **USGS3254253**

Agency cd:	USGS	Site no:	445056123185001
Site name:	08S/05W-28BCB1		
Latitude:	445056		
Longitude:	1231850	Dec lat:	44.8487296
Dec lon:	-123.31510183	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	SWSWNWS28T08SR05WW
Location map:	AIRLIE NORTH	Map scale:	24000
Altitude:	410.00	Altitude method:	M
Altitude accuracy:	10.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Hillside (slope)		
Site type:	Ground-water other than Spring	Date construction:	19740710
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	118	Hole depth:	118
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00

Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1976-08-05	Ground water data end date:	1976-08-05
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-08-05	52.30	

Note: A nearby site that taps the same aquifer was being pumped.

51
South
>4 Miles
Higher

FED USGS **USGS3253970**

Agency cd:	USGS	Site no:	444302123180401
Site name:	10S/05W-09ACD		
Latitude:	444302		
Longitude:	1231804	Dec lat:	44.71706428
Dec lon:	-123.30232239	Coor meth:	M
Coor accr:	F	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	003
Country:	US	Land net:	SESWNES09T10SR05W
Location map:	CORVALLIS	Map scale:	62500
Altitude:	340.00	Altitude method:	M
Altitude accuracy:	25.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Hillside (slope)		
Site type:	Ground-water other than Spring	Date construction:	19680617
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	130	Hole depth:	130
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1972-06-14	Ground water data end date:	1972-06-14
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1972-06-14	42.00	

D52
ENE
>4 Miles
Higher

OR WELLS **OR00007620**

Well ID:	Not Reported		
Application Number:	G 11049	Certificate Number:	61662
Permit Number:	G 10208	Point of Division Num.:	1
Map Name:	9.00S 4.00W	Section:	8
Source:	Not Reported	Use:	Irrigation
List:	0	Station:	0
X Coordinate:	0	Y Coordinate:	0
Latitude:	0	Longitude:	0
Aquifer Type:	Not Reported	Data Source:	Not Reported
Water Use:	Not Reported	Altitude:	0
Well Type:	Not Reported	Depth:	0
Description:	Not Reported	County Code:	Not Reported
Water Level:	0		
Well:	0		

53
ENE **OR WELLS** **OR00007496**
>4 Miles
Higher

Well ID:	Not Reported		
Application Number:	G 8141	Certificate Number:	0
Permit Number:	G 7512	Point of Division Num.:	1
Map Name:	9.00S 4.00W	Section:	5
Source:	Not Reported	Use:	Irrigation
List:	0	Station:	0
X Coordinate:	0	Y Coordinate:	0
Latitude:	0	Longitude:	0
Aquifer Type:	Not Reported	Data Source:	Not Reported
Water Use:	Not Reported	Altitude:	0
Well Type:	Not Reported	Depth:	0
Description:	Not Reported	County Code:	Not Reported
Water Level:	0		
Well:	0		

D54
ENE **FED USGS** **USGS3254157**
>4 Miles
Higher

Agency cd:	USGS	Site no:	444800123120901
Site name:	09S/04W-08DBC		
Latitude:	444800		
Longitude:	1231209	Dec lat:	44.799842
Dec lon:	-123.20370965	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	SWNWSES08T09SR04WW
Location map:	MONMOUTH	Map scale:	24000
Altitude:	273.00	Altitude method:	M
Altitude accuracy:	05.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Upland draw		
Site type:	Ground-water other than Spring	Date construction:	19690623
Date inventoried:	Not Reported	Mean greenwich time offset:	PST

Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	60.0	Hole depth:	60.0
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1976-09-10	Ground water data end date:	1976-09-10
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-09-10	17.80	

Note: The site had been pumped recently.

55
SE
>4 Miles
Higher

FED USGS USGS3254016

Agency cd:	USGS	Site no:	444414123132201
Site name:	10S/04W-06ABB1		
Latitude:	444414		
Longitude:	1231322	Dec lat:	44.73706465
Dec lon:	-123.22398722	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	NWNWNES06T10SR04WW
Location map:	LEWISBURG	Map scale:	24000
Altitude:	210.00	Altitude method:	M
Altitude accuracy:	5.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Flat surface		
Site type:	Ground-water other than Spring	Date construction:	19660903
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	60.0	Hole depth:	60.0
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1966-09-03	Ground water data end date:	1966-09-03
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1966-09-03	26.00	

56
NE
>4 Miles
Lower

FED USGS **USGS3254217**

Agency cd:	USGS	Site no:	445007123134001
Site name:	08S/04W-31BDB		
Latitude:	445007		
Longitude:	1231340	Dec lat:	44.83511927
Dec lon:	-123.2289885	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	NWSENWS31T08SR04WW
Location map:	MONMOUTH	Map scale:	24000
Altitude:	190.00	Altitude method:	M
Altitude accuracy:	5.	Altitude datum:	NGVD29
Hydrologic:	Middle Willamette. Oregon. Area = 700 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	19570916
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	55.0	Hole depth:	55.0
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1976-10-13	Ground water data end date:	1976-10-13
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-10-13	19.75	

Note: The site had been pumped recently.

57
NW
>4 Miles
Higher

FED USGS **USGS3254205**

Agency cd:	USGS	Site no:	444935123221801
Site name:	08S/06W-36CCD		
Latitude:	444935		
Longitude:	1232218	Dec lat:	44.82622938
Dec lon:	-123.37288066	Coor meth:	M
Coor accr:	F	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	SESWSWS36T08SR06WW
Location map:	AIRLIE NORTH	Map scale:	24000
Altitude:	298.00	Altitude method:	A
Altitude accuracy:	20.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Hillside (slope)		
Site type:	Ground-water other than Spring	Date construction:	19560706
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	52.0	Hole depth:	52.0
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1976-07-29	Ground water data end date:	1976-07-29
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-07-29	6.23	

58
SSE
>4 Miles
Higher

FED USGS **USGS3253975**

Agency cd:	USGS	Site no:	444310123151601
Site name:	10S/05W-12BBC		
Latitude:	444310		
Longitude:	1231516	Dec lat:	44.71928681
Dec lon:	-123.25565464	Coor meth:	M
Coor accr:	F	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	003
Country:	US	Land net:	SWNWNWS12T10SR05W
Location map:	CORVALLIS	Map scale:	62500
Altitude:	215.00	Altitude method:	M
Altitude accuracy:	25.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Valley flat		
Site type:	Ground-water other than Spring	Date construction:	19691028
Date inventoried:	Not Reported	Mean greenwich time offset:	PST

Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	150	Hole depth:	150
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1969-10-27	Ground water data end date:	1969-10-27
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1969-10-27	15.00	

59
NE
>4 Miles
Lower

OR WELLS **OR00007345**

Well ID:	Not Reported		
Application Number:	GR 72	Certificate Number:	0
Permit Number:	GR 76	Point of Division Num.:	1
Map Name:	8.00S 5.00W	Section:	25
Source:	Not Reported	Use:	Irrigation
List:	0	Station:	0
X Coordinate:	0	Y Coordinate:	0
Latitude:	0	Longitude:	0
Aquifer Type:	Not Reported	Data Source:	Not Reported
Water Use:	Not Reported	Altitude:	0
Well Type:	Not Reported	Depth:	0
Description:	Not Reported	County Code:	Not Reported
Water Level:	0		
Well:	0		

60
NNE
>4 Miles
Higher

FED USGS **USGS3254255**

Agency cd:	USGS	Site no:	445100123153501
Site name:	08S/05W-26ACA		
Latitude:	445100		
Longitude:	1231535	Dec lat:	44.84984112
Dec lon:	-123.2609339	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	SESWNES26T08SR05WW
Location map:	AIRLIE NORTH	Map scale:	24000
Altitude:	254.00	Altitude method:	M
Altitude accuracy:	10.	Altitude datum:	NGVD29
Hydrologic:	Middle Willamette. Oregon. Area = 700 sq.mi.		
Topographic:	Alluvial or marine terrace		
Site type:	Ground-water other than Spring	Date construction:	19710513
Date inventoried:	Not Reported	Mean greenwich time offset:	PST

Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	80.0	Hole depth:	80.0
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1976-08-06	Ground water data end date:	1976-08-06
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-08-06	23.77	

Note: The site had been pumped recently.

61
NNW
>4 Miles
Higher

FED USGS **USGS3254238**

Agency cd:	USGS	Site no:	445035123205701
Site name:	08S/05W-30CDB		
Latitude:	445035		
Longitude:	1232057	Dec lat:	44.84289604
Dec lon:	-123.35038036	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	NWSESWS30T08SR05WW
Location map:	AIRLIE NORTH	Map scale:	24000
Altitude:	507.00	Altitude method:	M
Altitude accuracy:	10.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Hilltop		
Site type:	Ground-water other than Spring	Date construction:	19751204
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	160	Hole depth:	160
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1976-08-04	Ground water data end date:	1976-08-04
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-08-04	80.86	

Note: The site had been pumped recently.

E62
NE
>4 Miles
Higher

FED USGS **USGS3254208**

Agency cd:	USGS	Site no:	444941123125501
Site name:	08S/04W-31DDA2		
Latitude:	444941		
Longitude:	1231255	Dec lat:	44.82789721
Dec lon:	-123.2164881	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	NESESES31T08SR04WW
Location map:	MONMOUTH	Map scale:	24000
Altitude:	203.00	Altitude method:	M
Altitude accuracy:	5.	Altitude datum:	NGVD29
Hydrologic:	Middle Willamette. Oregon. Area = 700 sq.mi.		
Topographic:	Hillside (slope)		
Site type:	Ground-water other than Spring	Date construction:	19590511
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	132	Hole depth:	132
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	1991-12-01
Water quality data end date:	1991-12-01	Water quality data count:	1
Ground water data begin date:	1976-10-08	Ground water data end date:	1976-10-08
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-10-08	94.62	

E63
NE
>4 Miles
Lower

FED USGS **USGS3254207**

Agency cd:	USGS	Site no:	444941123125301
Site name:	08S/04W-31DDA1		
Latitude:	444941		
Longitude:	1231253	Dec lat:	44.82789721
Dec lon:	-123.21593253	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	NESESES31T08SR04WW
Location map:	MONMOUTH	Map scale:	24000
Altitude:	200.00	Altitude method:	M
Altitude accuracy:	5.	Altitude datum:	NGVD29
Hydrologic:	Middle Willamette. Oregon. Area = 700 sq.mi.		
Topographic:	Alluvial or marine terrace		
Site type:	Ground-water other than Spring	Date construction:	19660520
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	122	Hole depth:	122
Source of depth data:	driller	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	1976-10-08
Water quality data end date:	1976-10-08	Water quality data count:	1
Ground water data begin date:	1976-10-08	Ground water data end date:	1976-10-08
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-10-08	30.32	

64
NE
>4 Miles
Lower

FED USGS **USGS3254224**

Agency cd:	USGS	Site no:	445015123133701
Site name:	08S/04W-31BAC		
Latitude:	445015		
Longitude:	1231337	Dec lat:	44.83734148
Dec lon:	-123.22815517	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	053
Country:	US	Land net:	SWNENWS31T08SR04WW
Location map:	MONMOUTH	Map scale:	24000
Altitude:	191.00	Altitude method:	M
Altitude accuracy:	5.	Altitude datum:	NGVD29
Hydrologic:	Middle Willamette. Oregon. Area = 700 sq.mi.		
Topographic:	Alluvial or marine terrace		
Site type:	Ground-water other than Spring	Date construction:	19730730
Date inventoried:	Not Reported	Mean greenwich time offset:	PST

Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	80.0	Hole depth:	80.0
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1976-10-13	Ground water data end date:	1976-10-13
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-10-13	16.98	

Note: The site had been pumped recently.

AREA RADON INFORMATION

State Database: OR Radon

Radon Test Results

Zip	Total Sites	Min pCi/L	Max pCi/L	Avg pCi/L	>4 pCi/L
97361	3	0.3	1.5	1.0	0

Federal EPA Radon Zone for POLK County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.
Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002. 7.5-Minute DEMs correspond to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW[R] Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

STATE RECORDS

Oregon Digitized Wells
Source: Water Resources Department
Telephone: 503-378-8455

OTHER STATE DATABASE INFORMATION

RADON

State Database: OR Radon
Source: Oregon Health Services
Telephone: 503-731-4272
Radon Levels in Orgeon

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

The EDR Radius Atlas™
with GeoCheck®

Camp Adair - South
Camp Adair - South
Monmouth, OR 97361

Inquiry Number: 1575900.2s

December 16, 2005

EDR® Environmental Data Resources Inc

The Standard in Environmental Risk Management Information

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

CAMP ADAIR - SOUTH
MONMOUTH, OR 97361

COORDINATES

Elevation: 615 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property: 44123-F2 LEWISBURG, OR
Source: USGS 7.5 min quad index

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following government records. For more information on this property see page 30 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
CAMP ADAIR-TANK SITE NO.1 NE CORNER CARR AVE/VANDERBILT AVE ADAIR VILLAGE, OR 97330	LUST	N/A
CAMP ADAIR ARMY BASE (FORMER) CAMP ADAIR RD ADAIR VILLAGE, OR 97330	SHWS - ECSI FINDS	110014168845
CAMP ADAIR-TANK SITE NO.1 NE CORNER CARR AVE/VANDERBILT AVE ADAIR VILLAGE, OR 97330	FINDS	110014304403
CAMP ADAIR T10S R4W R5W WM 8M N OF CITY CORVALLIS, OR 97330	CERC-NFRAP	OR0001097161
USACE CAMP ADAIR AFS REMEDIATION SITE ADAIR VILLAGE CORVALLIS, OR 97330	RCRA-SQG FINDS	OR0000375808

EXECUTIVE SUMMARY

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available "reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

FEDERAL RECORDS

NPL	National Priority List
Proposed NPL	Proposed National Priority List Sites
Delisted NPL	National Priority List Deletions
NPL Liens	Federal Superfund Liens
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CORRACTS	Corrective Action Report
RCRA-TSDF	Resource Conservation and Recovery Act Information
RCRA-LQG	Resource Conservation and Recovery Act Information
ERNS	Emergency Response Notification System
HMIRS	Hazardous Materials Information Reporting System
US ENG CONTROLS	Engineering Controls Sites List
US INST CONTROL	Sites with Institutional Controls
FUDS	Formerly Used Defense Sites
US BROWNFIELDS	A Listing of Brownfields Sites
CONSENT	Superfund (CERCLA) Consent Decrees
ROD	Records Of Decision
UMTRA	Uranium Mill Tailings Sites
ODI	Open Dump Inventory
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
SSTS	Section 7 Tracking Systems
PADS	PCB Activity Database System
MLTS	Material Licensing Tracking System
MINES	Mines Master Index File
RAATS	RCRA Administrative Action Tracking System

STATE AND LOCAL RECORDS

OR CRL	Confirmed Release List and Inventory
UIC	Underground Injection Control Program Database
HIST LF	Old Closed SW Disposal Sites
AOC COL	Columbia Slough
ENG CONTROLS	Engineering Controls Recorded at ESCI Sites
INST CONTROL	Institutional Controls Recorded at ESCI Sites
VCS	Voluntary Cleanup Program Sites
DRYCLEANERS	Drycleaning Facilities
CDL	Uninhabitable Drug Lab Properties

TRIBAL RECORDS

INDIAN RESERV	Indian Reservations
INDIAN LUST	Leaking Underground Storage Tanks on Indian Land
INDIAN UST	Underground Storage Tanks on Indian Land

EDR PROPRIETARY RECORDS

Coal Gas	Coal Gas

EXECUTIVE SUMMARY

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

FEDERAL RECORDS

Federal Lands: Consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

A review of the DOD list, as provided by EDR, and dated 10/01/2003 has revealed that there is 1 DOD site within approximately 3 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir		Map ID	Page
CAMP ADAIR MILITARY RESERVATIO		1 - 2	WNW	0	36

FTTS:FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act) over the previous five years. To maintain currency, EDR contacts the Agency on a quarterly basis.

A review of the FTTS INSP list, as provided by EDR, and dated 07/15/2005 has revealed that there is 1 FTTS INSP site within approximately 3 miles of the target property.

Lower Elevation	Address	Dist / Dir		Map ID	Page
OREGON ST DEPT OF FISH & WILDL	***7118 NE VANDENBERG AVE***	***>2***	***SSE***	***I37***	***99***

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 09/29/2005 has revealed that there are 15 FINDS sites within approximately 3 miles of the target property.

Lower Elevation	Address	Dist / Dir		Map ID	Page
POWER RESOURCES COOPERATIVE	***29160 COFFIN BUTTE RD.***	***1/2 - 1***	***ESE***	***B7***	***41***
COFFIN BUTTE REGIONAL LANDFILL	***CAMP ADAIR RD***	***1/2 - 1***	***WSW***	***D11***	***53***
COFFIN BUTTE	28972 COFFIN BUTTE ROAD	1/2 - 1	WSW	D12	62

EXECUTIVE SUMMARY

Lower Elevation	Address	Dist / Dir		Map ID	Page
VALLEY LANDFILLS INC	28972 COFFIN BUTTE RD	1/2 - 1	WSW	D13	62
E.E. WILSON WMA	29594 CAMP ADAIR ROAD	1 - 2	ESE	E16	68
US ARMY NG CORVALLIS CAMP ADAI	***39434 RIFLE RANGE RD***	***1 - 2***	***NW***	***F19***	***72***
CORVALLIS CITY OF	1304 NORTHEAST 2ND STRE	>2	SSE	H26	85
ADAIR RURAL FIRE STATION 1401	6021 NE MARCUS HARRIS A	>2	SSE	J31	92
RIVERVIEW MARINA	781 NE 2ND ST	>2	SSE	I34	96
OREGON ST DEPT OF FISH & WILDL	***7118 NE VANDENBERG AVE***	***>2***	***SSE***	***I37***	***99***
VALLEY LANDFILLS, INC	29969 CAMP ADAIR RD	>2	E	K39	105
PROCESSING& RECOVERY CENTER	29969 CAMP ADAIR RD	>2	E	K40	106
HOWARD RASMUSSEN	13340 S PACIFIC HWY W	>2	NNE	L45	113
RICHARDS STORE	13160 S PACIFIC HWY W S	>2	NNE	M46	113
DOOLEY, GEORGE J	***8804 NW ARBORETUM RD***	***>2***	***S***	***50***	***120***

STATE AND LOCAL RECORDS

ECSI: The Environmental Cleanup Site Information System records information about sites in Oregon that may be of environmental interest. The data come from the Department of Environmental Quality.

A review of the SHWS - ECSI list, as provided by EDR, has revealed that there are 3 SHWS - ECSI sites within approximately 3 miles of the target property.

Lower Elevation	Address	Dist / Dir		Map ID	Page
COFFIN BUTTE REGIONAL LANDFILL	***CAMP ADAIR RD***	***1/2 - 1***	***WSW***	***D11***	***53***
US ARMY NG CORVALLIS CAMP ADAI	***39434 RIFLE RANGE RD***	***1 - 2***	***NW***	***F19***	***72***
BOISE CASCADE - CAMP ADAIR	CAMP ADAIR RD	1 - 2	E	22	76

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Department of Environmental Quality's Closure & Regular Solid Waste Active Disposal Permits database.

A review of the SWF/LF list, as provided by EDR, has revealed that there are 2 SWF/LF sites within approximately 3 miles of the target property.

Lower Elevation	Address	Dist / Dir		Map ID	Page
COFFIN BUTTE LANDFILL	28972 COFFIN BUTTE RD	1/2 - 1	WSW	D14	62
PROCESSING & RECOVERY CENTER	29969 CAMP ADAIR RD	>2	E	K42	112

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Environmental Quality's LUST Database List.

A review of the LUST list, as provided by EDR, and dated 07/14/2005 has revealed that there are 10 LUST sites within approximately 3 miles of the target property.

Lower Elevation	Address	Dist / Dir		Map ID	Page
E.E. WILSON WMA	29594 CAMP ADAIR ROAD	1 - 2	ESE	E17	68
CAMP ADAIR-TANK SITE NO.2	CAMP ADAIR - AIR FORCE	1 - 2	E	G21	76
CORVALLIS WASTE WATER HOT	1304 NE 2ND	>2	SSE	H24	85
UDALL, K HOT	6002 NE CARR	>2	SSE	I30	92

EXECUTIVE SUMMARY

Lower Elevation	Address	Dist / Dir		Map ID	Page
ADAIR RURAL FIRE STATION 1401	***6021 NE MARCUS HARRIS A***	***>2***	***SSE***	***J32***	***92***
AT&T TD-2 MAUPORQ5750	***STAR ROUTE, BOX 1A***	***>2***	***SSE***	***I33***	***96***
ADAIR VILLAGE	3RD / VANDENBERG AVE	>2	SSE	J43	112
HOWARD RASMUSSEN	***13340 S PACIFIC HWY W***	***>2***	***NNE***	***L44***	***112***
RICHARDS STORE	13160 S PACIFIC HWY WES	>2	NNE	M47	113
DOOLEY, GEORGE J	***8804 NW ARBORETUM RD***	***>2***	***S***	***50***	***120***

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Environmental Quality's UST List on Disk.

A review of the UST list, as provided by EDR, and dated 07/21/2005 has revealed that there are 6 UST sites within approximately 3 miles of the target property.

Lower Elevation	Address	Dist / Dir		Map ID	Page
FORMER CAMP ADAIR	CAMP ADAIR	1 - 2	E	G20	76
CORVALLIS, CITY OF - WWRP	1304 NE 2ND ST	>2	SSE	H25	85
ADAIR RURAL FIRE STATION 1401	***6021 NE MARCUS HARRIS A***	***>2***	***SSE***	***J32***	***92***
AT&T TD-2 MAUPORQ5750	***STAR ROUTE, BOX 1A***	***>2***	***SSE***	***I33***	***96***
RIVERVIEW MARINA	781 NE 2ND ST	>2	SSE	I35	97
HOWARD RASMUSSEN	***13340 S PACIFIC HWY W***	***>2***	***NNE***	***L44***	***112***

AST: The Aboveground Storage Tank database contains registered ASTs. The data comes from the list of ASTs reported to the Office of State Fire Marshal.

A review of the AST list, as provided by EDR, and dated 08/01/2005 has revealed that there are 11 AST sites within approximately 3 miles of the target property.

Lower Elevation	Address	Dist / Dir		Map ID	Page
POWER RESOURCES COOPERATIVE	***29160 COFFIN BUTTE RD.***	***1/2 - 1***	***ESE***	***B7***	***41***
VALLEY LANDFILLS INC	***29000 COFFIN BUTTE RD***	***1/2 - 1***	***SW***	***8***	***41***
VALLEY LANDFILLS INC	***29175 COFFIN BUTTE RD***	***1/2 - 1***	***ESE***	***C9***	***47***
ODFW	***29555 CAMP ADAIR RD***	***1 - 2***	***ESE***	***15***	***62***
ORARNG	***39432 RIFLE RANGE RD***	***1 - 2***	***NW***	***F18***	***69***
QWEST CORPORATION	***4111 NE LAUREL DR***	***>2***	***SSE***	***23***	***82***
ADAIR RURAL FIRE STATION 1401	***6021 NE MARCUS HARRIS A***	***>2***	***SSE***	***J32***	***92***
NORTHWEST LABORERS EMPLOYERS	***6011 NE MARCUS HARRIS A***	***>2***	***SSE***	***J38***	***100***
VALLEY LANDFILLS INC	***29969 CAMP ADAIR RD***	***>2***	***E***	***K41***	***106***
HIVELY POTTERY	***13005 S PACIFIC HWY S***	***>2***	***NNE***	***N48***	***113***
AGRIWELD INC	***13000 S PACIFIC HWY W***	***>2***	***NNE***	***N49***	***114***

OR SPILLS: Department of Environmental Spill Data.

A review of the OR SPILLS list, as provided by EDR, and dated 09/13/2005 has revealed that there is 1 OR SPILLS site within approximately 3 miles of the target property.

Lower Elevation	Address	Dist / Dir		Map ID	Page
Not reported	1 MI E OF HWY 99 ON CAM	1/2 - 1	ESE	C10	53

EXECUTIVE SUMMARY

OR HAZMAT: The Oregon HAZMAT Database contains Fire Department response to spills as reported by Oregon State Fire Marshall's Office.

A review of the OR HAZMAT list, as provided by EDR, and dated 08/31/2004 has revealed that there are 2 OR HAZMAT sites within approximately 3 miles of the target property.

Lower Elevation	Address	Dist / Dir		Map ID	Page
Not reported	1304 NE 2ND	>2	SSE	H27	85
Not reported	1204 NE 2ND ST	>2	SSE	H28	88

Brownfields investigations and/or cleanups that have been conducted in Oregon.

A review of the Brownfields list, as provided by EDR, and dated 09/13/2005 has revealed that there is 1 Brownfields site within approximately 3 miles of the target property.

Lower Elevation	Address	Dist / Dir		Map ID	Page
COFFIN BUTTE REGIONAL LANDFILL	***CAMP ADAIR RD***	***1/2 - 1***	***WSW***	***D11***	***53***

OR HSIS: Hazardous Substance Information Survey

A review of the HSIS list, as provided by EDR, and dated 08/01/2005 has revealed that there are 13 HSIS sites within approximately 3 miles of the target property.

Lower Elevation	Address	Dist / Dir		Map ID	Page
POWER RESOURCES COOPERATIVE	29160 COFFIN BUTTE RD	1/2 - 1	ESE	B6	37
VALLEY LANDFILLS INC	***29000 COFFIN BUTTE RD***	***1/2 - 1***	***SW***	***8***	***41***
VALLEY LANDFILLS INC	***29175 COFFIN BUTTE RD***	***1/2 - 1***	***ESE***	***C9***	***47***
ODFW	***29555 CAMP ADAIR RD***	***1 - 2***	***ESE***	***15***	***62***
ORARNG	***39432 RIFLE RANGE RD***	***1 - 2***	***NW***	***F18***	***69***
QWEST CORPORATION	***4111 NE LAUREL DR***	***>2***	***SSE***	***23***	***82***
AT&T CORP	900 NE 2ND ST	>2	SSE	I29	90
ADAIR RURAL FIRE STATION 1401	***6021 NE MARCUS HARRIS A***	***>2***	***SSE***	***J32***	***92***
ODFW	7118 NE VANDENBERG AVE	>2	SSE	I36	97
NORTHWEST LABORERS EMPLOYERS	***6011 NE MARCUS HARRIS A***	***>2***	***SSE***	***J38***	***100***
VALLEY LANDFILLS INC	***29969 CAMP ADAIR RD***	***>2***	***E***	***K41***	***106***
HIVELY POTTERY	***13005 S PACIFIC HWY S***	***>2***	***NNE***	***N48***	***113***
AGRIWELD INC	***13000 S PACIFIC HWY W***	***>2***	***NNE***	***N49***	***114***

Due to poor or inadequate address information, the following sites were not mapped:

Site Name	Database(s)
SYNTHETECH INC	SHWS - ECSI, FINDS, HSIS, OR SPILLS, RCRA-LQG, TRIS, UST, AST, FTTS INSP
YOUNGER OIL CO.	SHWS - ECSI
FRY SUBSTATION - ALBANY	SHWS - ECSI
SOUTHERN PACIFIC RR - MILLERSBURG	SHWS - ECSI, FINDS
KITSON-YU PROPERTY	SHWS - ECSI, VCS
KEMPF PROPERTY	SHWS - ECSI
LEWISBURG AREAWIDE GASOLINE RELEASE	SHWS - ECSI, FINDS
BOISE CASCADE - MILLERSBURG	SHWS - ECSI
BLACK DOG SLOUGH	SHWS - ECSI, OR CRL
BLACK DOG SLOUGH TRANSFORMER DUMP SITE	CERCLIS, FINDS
TRANS AG INC	RCRA-SQG, FINDS, CERC-NFRAP
ALBANY LANDFILL	CERC-NFRAP
BRAND S CORP	CERC-NFRAP
COFFIN BUTTE REGIONAL LDFL	RCRA-SQG, FINDS, CERC-NFRAP
ALBANY WHSLE CONTAINER INC	HSIS, AST
CORNELLS I-5 GAS FOOD & AUTOCA	HSIS, AST
SCHUCKS AUTO PARTS	HSIS, AST
GOLF CLUB OF OREGON	AST
D & B BEAR SERVICE	HSIS, AST
OAKCRAFT MFG INC	HSIS, AST
VERIZON WIRELESS	HSIS, AST
R & D CONSTRUCTION INC	HSIS, AST
CITY OF ALBANY - LYONS ST	LUST
RIMROCK INVESTMENT PROPERTY	LUST
OWENS FARM	FINDS, LUST
TRILLIUM FAMILY SERVICES	LUST
CHEVRON #9035	LUST
UNOCAL #3975	LUST
I-5 & HWY 34 CARDLOCK	UST
ARCO FACILITY NO. 04379	UST
WAGNER'S TOWING	UST
BOISE CASCADE PLYWOOD PLANT	UST
SCREEN PLANT	UST
CONOCOPHILLIPS COMPANY - 253975	UST
CHEVRON USA INC #99035	UST
BOISE CASCADE REGION OFFICE	UST
ODOT ALBANY MAINT SEC	RCRA-SQG, FINDS
ODOT ELLSWORTH ST BRIDGE ALBAN	RCRA-SQG, FINDS
ARCO 5897	RCRA-SQG, FINDS
MARK THOMAS MOTORS INC	RCRA-SQG, FINDS
U S FOREST INDUSTRIES INCORPORATED	RCRA-SQG, FINDS
M & M RENTALS	RCRA-SQG, FINDS
ARCO 4379	RCRA-SQG, FINDS
MARK THOMAS MOTORS INC	RCRA-SQG, FINDS
WITHNELL NISSAN LINCOLN MERCUR	RCRA-SQG, FINDS
1920 PACIFIC BLVD	RCRA-SQG
USWCOM ALBANY CO	RCRA-SQG, FINDS
BOISE CASCADE CORP CORVALLIS	RCRA-SQG

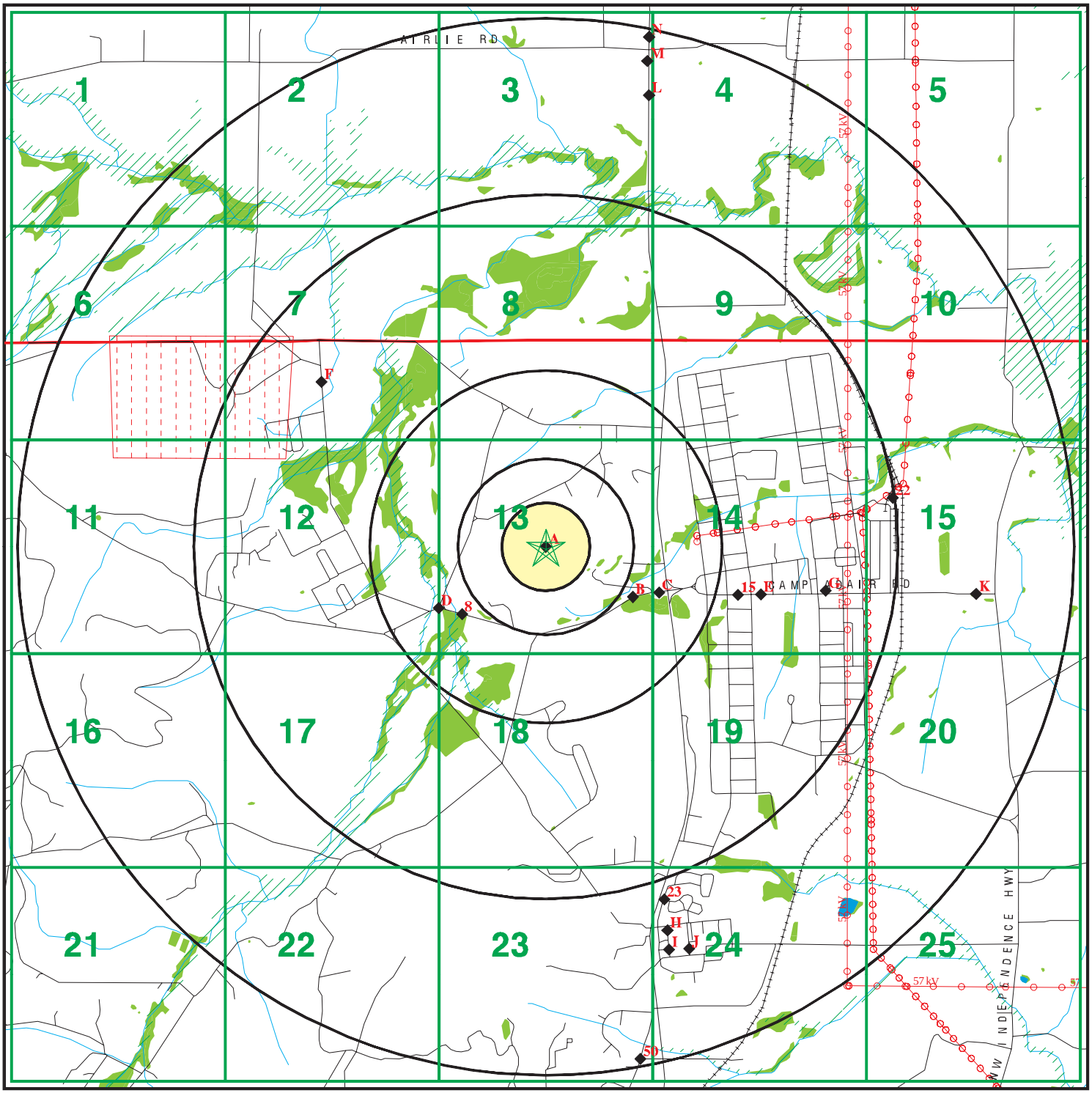
EXECUTIVE SUMMARY

USWCOM ADAIR CO (340)	RCRA-SQG
ADAIR VILLAGE	FINDS
ADAIR VILLAGE, CITY OF	FINDS
I - 5 WEST	FINDS
CHEVRON USA INC - 92485	FINDS
BOISE CASCADE - MILLERSBURG	FINDS
SOUTH ALBANY HIGH SCHOOL	FINDS
SALEM CENTRE SOUTH	FINDS
FRY SUBSTATION - ALBANY	FINDS
SOUTH ALBANY 76	FINDS
WILLAMETTE INDUSTRIES - ALBANY PAPER MILL	TSCA
HWY 20 / N ALBANY RD	OR HAZMAT
3130 HWY 20 SE	OR HAZMAT
HWY 20 MP 7.03 BOWERS SLOUGH	OR SPILLS, OR HAZMAT
HWY 20/INDEPEND HWY	OR HAZMAT
HWY 99 E / 53RD AVE	OR HAZMAT
CALLAPOOLEA / 2ND	OR HAZMAT
100 INDEPENDENCE HWY	OR HAZMAT
200 S PACIFIC	OR HAZMAT
PACIFIC BLVD / PERIWINKLE CRK	OR HAZMAT
PACIFIC / 24TH	OR HAZMAT
3232 PACIFIC BLVD	OR HAZMAT
1010 SW PACIFIC BLVD	OR HAZMAT
7600 NW RYALS LN	OR HAZMAT
2100 SE SANTIAM HWY	OR HAZMAT
SANTIAM/PACIFIC HWY	OR HAZMAT
HWY 20 @ H P CO GATE	OR HAZMAT
HWY 20 MP 1.5	OR HAZMAT
HWY 344 PEORIA RD	OR HAZMAT
650 NW 4TH ST / HWY 99W	OR HAZMAT
4800 BLK NE HWY 20	OR HAZMAT
COLORADO LAKE DR / HWY 34	OR HAZMAT
4250 NE HWY 20	OR HAZMAT
RYLS LN 3/4 MI W IND HWY	OR HAZMAT
4TH / WASHINGTON	OR HAZMAT
1 MILE W ON HWY 99E	OR HAZMAT
11000 BLOCK AIRLIE RD	OR HAZMAT
437 E CLAY (POST OFFICE)	OR HAZMAT
1/8 MILE E OF HWY 99W ON SUVER RD	OR HAZMAT
PARKER RD / HWY 99	OR HAZMAT
SELMET, INC.(OWNER:SELMET, INC.)	UIC
ADAIR VILLAGE CITY OF	HSIS
QWEST WIRELESS	HSIS
BP WEST COAST PRODUCTS LLC	HSIS
WILLAMETTE POWDER FAB INC	HSIS
BUCKEYE ENGINE SERVICES	HSIS
PETERSON MACHINERY CO	HSIS
VERIZON WIRELESS	HSIS
LARS FOREIGN CARS	HSIS
B & V ENTERPRISES	HSIS
SPRINT COMMUNICATIONS CO LP	HSIS
NEXTEL WEST CORPORATION	HSIS
WILLAMETTE INDUSTRIES - ALBANY PAPERMILL	HAZNET
ARCO AM-PM	HSIS
GOLF CLUB OF OREGON	HSIS

EXECUTIVE SUMMARY

HAM-MOCK & ASSOCIATES	HSIS
MORSE BROTHERS INC	HSIS
BEAVER PLUMBING & HEATING INC	HSIS
GOLF CITY PAR 3	HSIS
PACIFIC HWY AUTO CARE LLC	HSIS
DAVISON AUTO PARTS INC	HSIS
OREGON DEPARTMENT OF FISH & WILDLIFE	SSTS

OVERVIEW MAP - 1575900.2s - Shaw Env. and Infrastructure



0 3/4 1 1/2 3 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

TARGET PROPERTY:	Camp Adair - South	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - South	CONTACT:	Jennifer Lillis
CITY/STATE:	Monmouth OR	INQUIRY #:	1575900.2s
ZIP:	97361	DATE:	December 16, 2005 9:54 am

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DETAIL MAP 1 of 25 - 1575900.2s

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites

0 1/8 1/4 1/2 Miles

- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

TARGET PROPERTY:	Camp Adair - South	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - South	CONTACT:	Jennifer Lillis
CITY/STATE:	Monmouth OR	INQUIRY #:	1575900.2s
ZIP:	97361	DATE:	December 16, 2005 9:54 am

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DETAIL MAP 2 of 25 - 1575900.2s

0 1/8 1/4 1/2 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

TARGET PROPERTY:	Camp Adair - South	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - South	CONTACT:	Jennifer Lillis
CITY/STATE:	Monmouth OR	INQUIRY #:	1575900.2s
ZIP:	97361	DATE:	December 16, 2005 9:54 am

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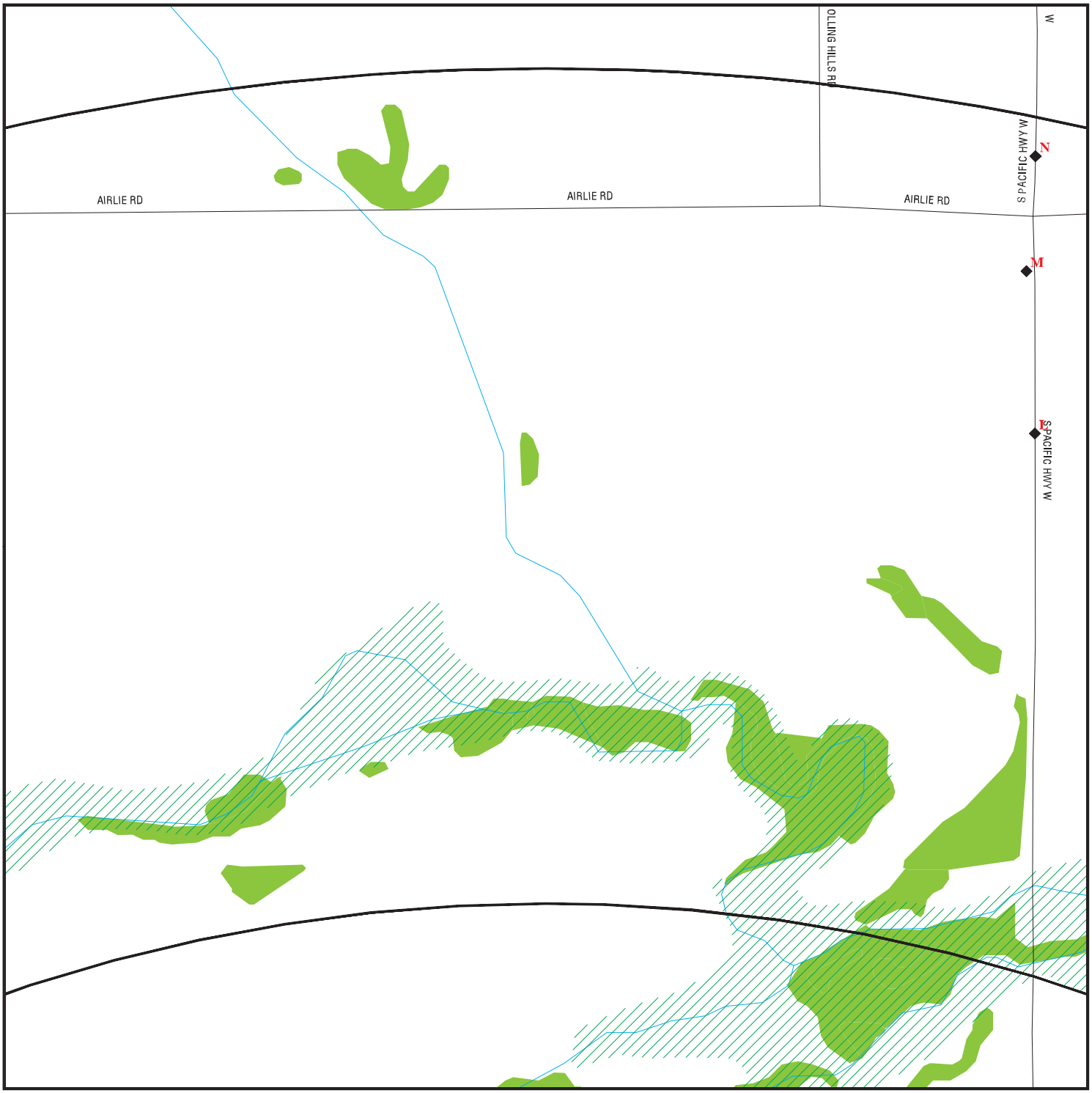
DETAIL MAP 3 of 25 - 1575900.2s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites

0 1/8 1/4 1/2 Miles

- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

TARGET PROPERTY:	Camp Adair - South	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - South	CONTACT:	Jennifer Lillis
CITY/STATE:	Monmouth OR	INQUIRY #:	1575900.2s
ZIP:	97361	DATE:	December 16, 2005 9:54 am

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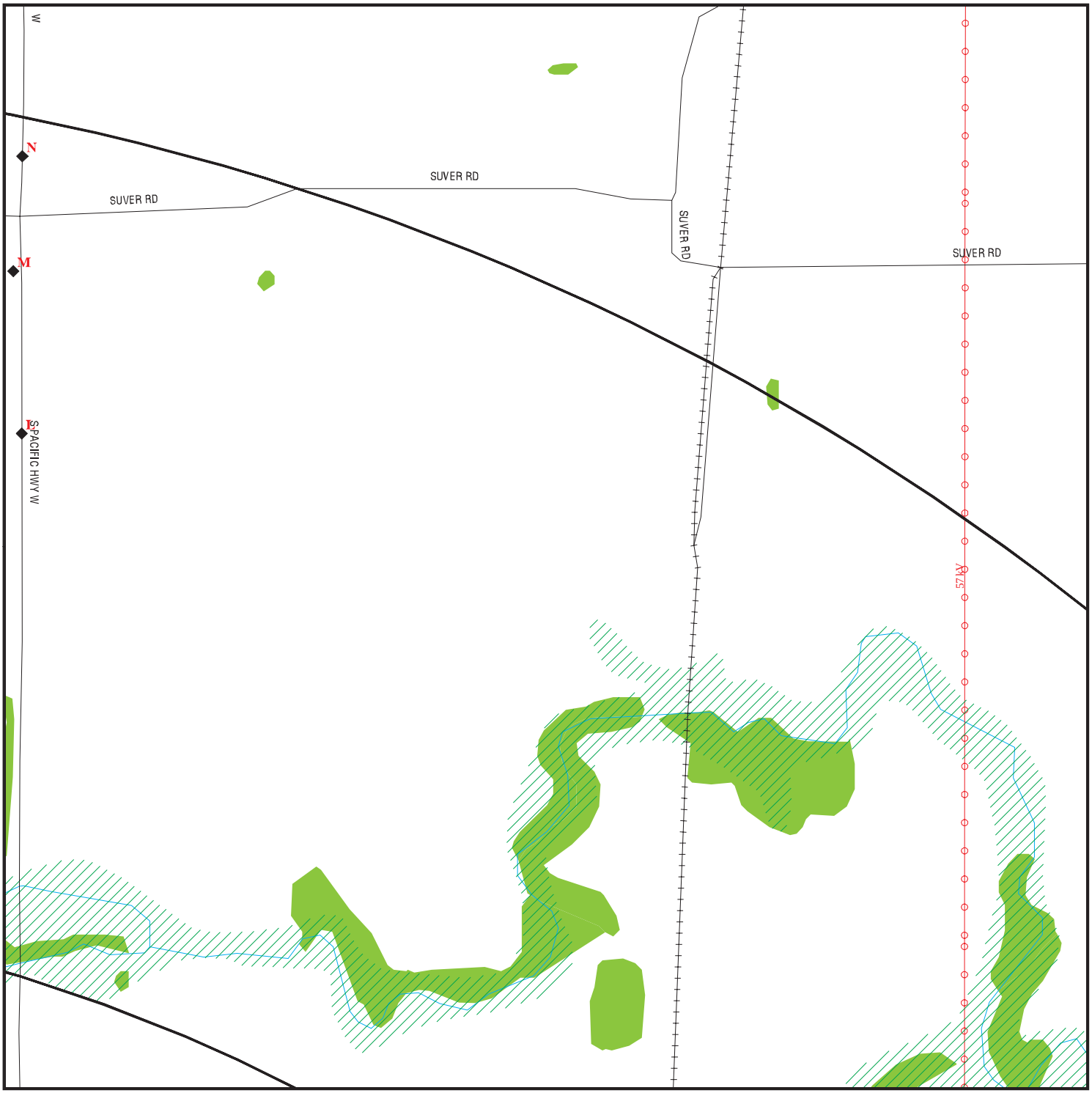
DETAIL MAP 4 of 25 - 1575900.2s



Target Property
Sites at elevations higher than or equal to the target property
Sites at elevations lower than the target property
Coal Gasification Sites
Sensitive Receptors
National Priority List Sites
Landfill Sites
Dept. Defense Sites

0 1/8 1/4 1/2 Miles

Indian Reservations BIA
County Boundary
Power transmission lines
Oil & Gas pipelines
100-year flood zone
500-year flood zone
Federal Wetlands
Areas of Concern

TARGET PROPERTY:	Camp Adair - South	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - South	CONTACT:	Jennifer Lillis
CITY/STATE:	Monmouth OR	INQUIRY #:	1575900.2s
ZIP:	97361	DATE:	December 16, 2005 9:55 am

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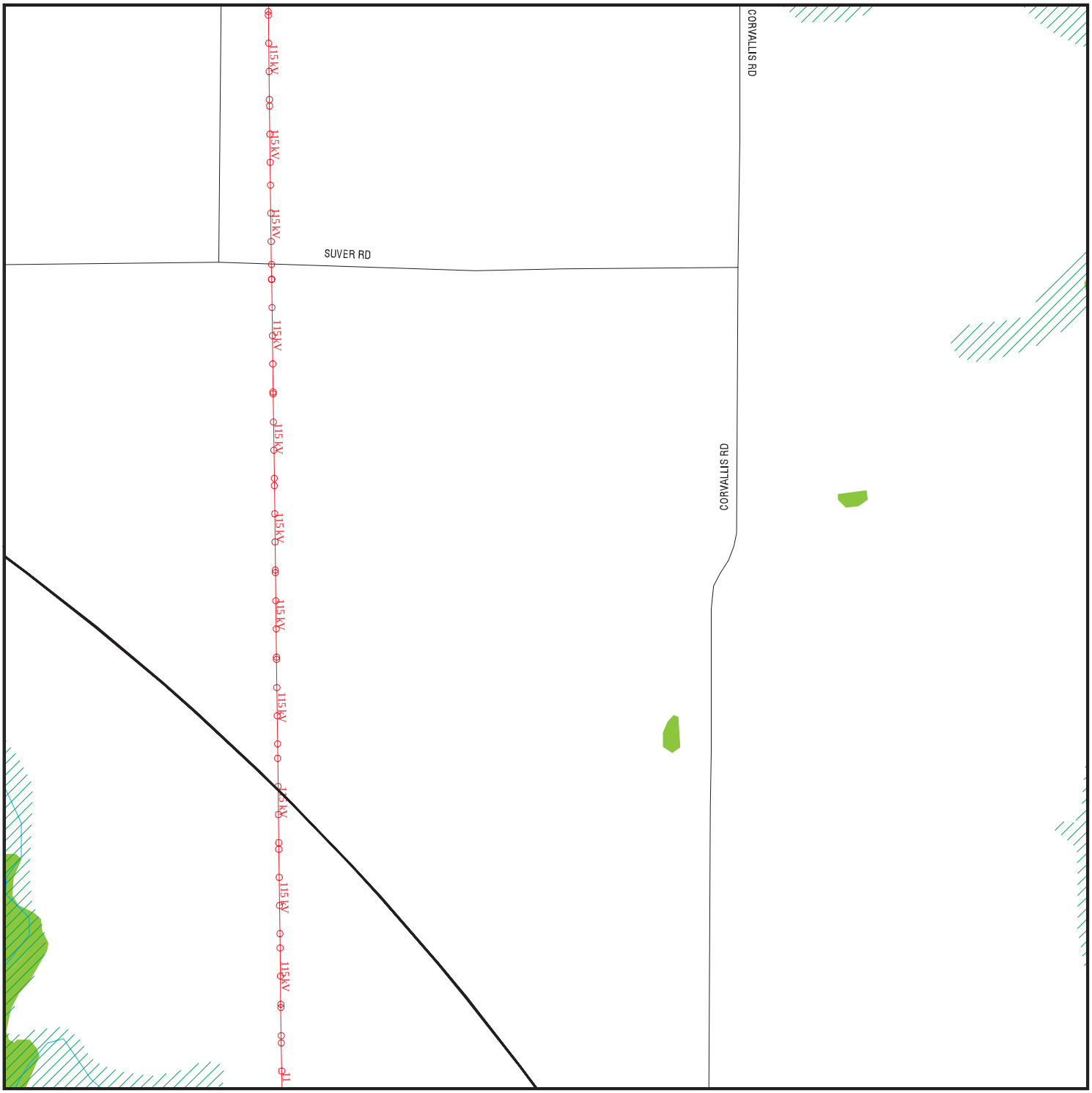
DETAIL MAP 5 of 25 - 1575900.2s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

0 1/8 1/4 1/2 Miles

TARGET PROPERTY:	Camp Adair - South	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - South	CONTACT:	Jennifer Lillis
CITY/STATE:	Monmouth OR	INQUIRY #:	1575900.2s
ZIP:	97361	DATE:	December 16, 2005 9:55 am

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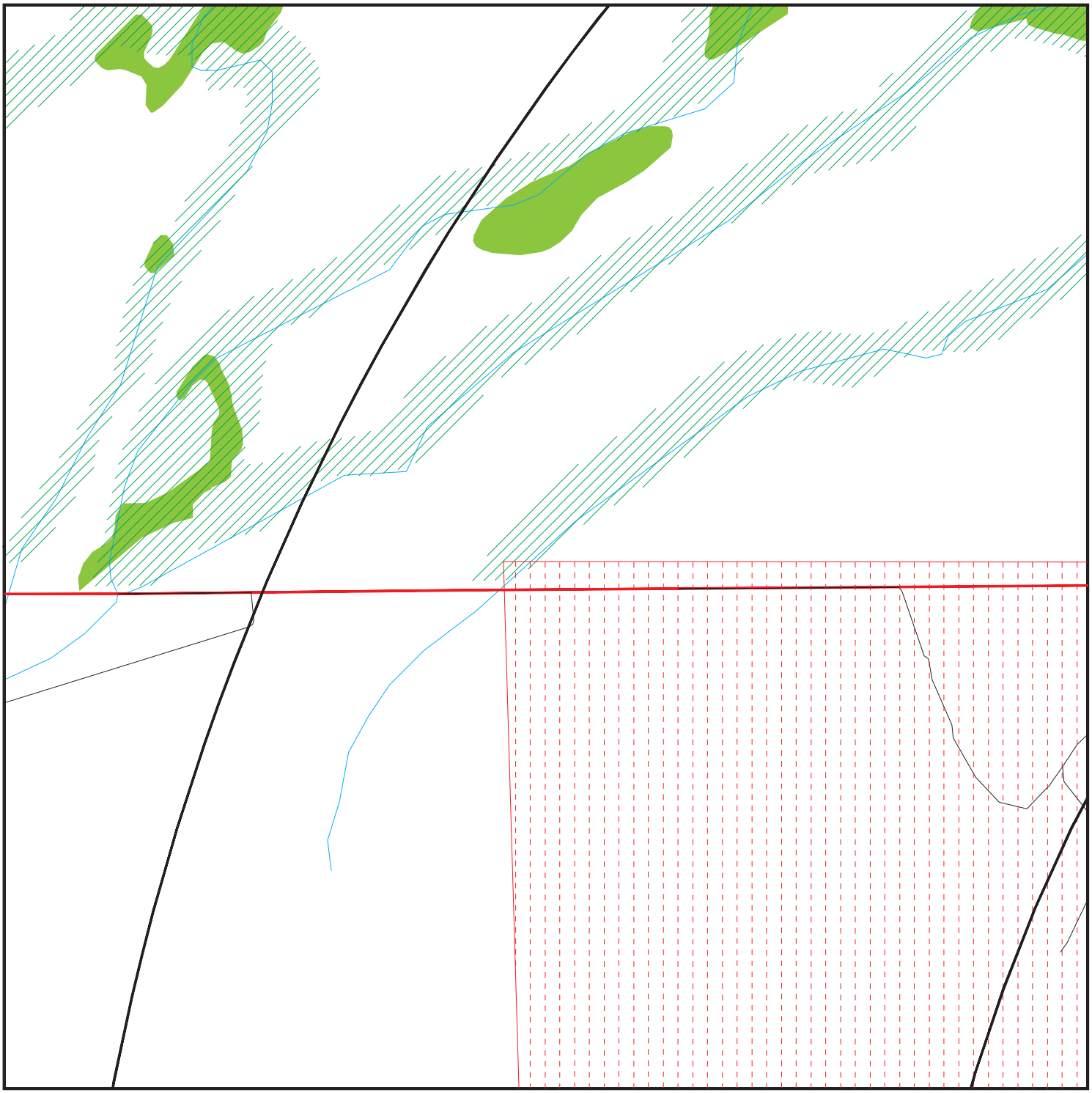
DETAIL MAP 6 of 25 - 1575900.2s



0 1/8 1/4 1/2 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

TARGET PROPERTY:	Camp Adair - South	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - South	CONTACT:	Jennifer Lillis
CITY/STATE:	Monmouth OR	INQUIRY #:	1575900.2s
ZIP:	97361	DATE:	December 16, 2005 9:55 am

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P100R002008_01.09_0303_a

DETAIL MAP 7 of 25 - 1575900.2s

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

TARGET PROPERTY:	Camp Adair - South	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - South	CONTACT:	Jennifer Lillis
CITY/STATE:	Monmouth OR	INQUIRY #:	1575900.2s
ZIP:	97361	DATE:	December 16, 2005 9:55 am

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DETAIL MAP 8 of 25 - 1575900.2s

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites

0 1/8 1/4 1/2 Miles

- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

N

TARGET PROPERTY:	Camp Adair - South	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - South	CONTACT:	Jennifer Lillis
CITY/STATE:	Monmouth OR	INQUIRY #:	1575900.2s
ZIP:	97361	DATE:	December 16, 2005 9:55 am

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DETAIL MAP 9 of 25 - 1575900.2s

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

0 1/8 1/4 1/2 Miles

N

TARGET PROPERTY:	Camp Adair - South	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - South	CONTACT:	Jennifer Lillis
CITY/STATE:	Monmouth OR	INQUIRY #:	1575900.2s
ZIP:	97361	DATE:	December 16, 2005 9:55 am

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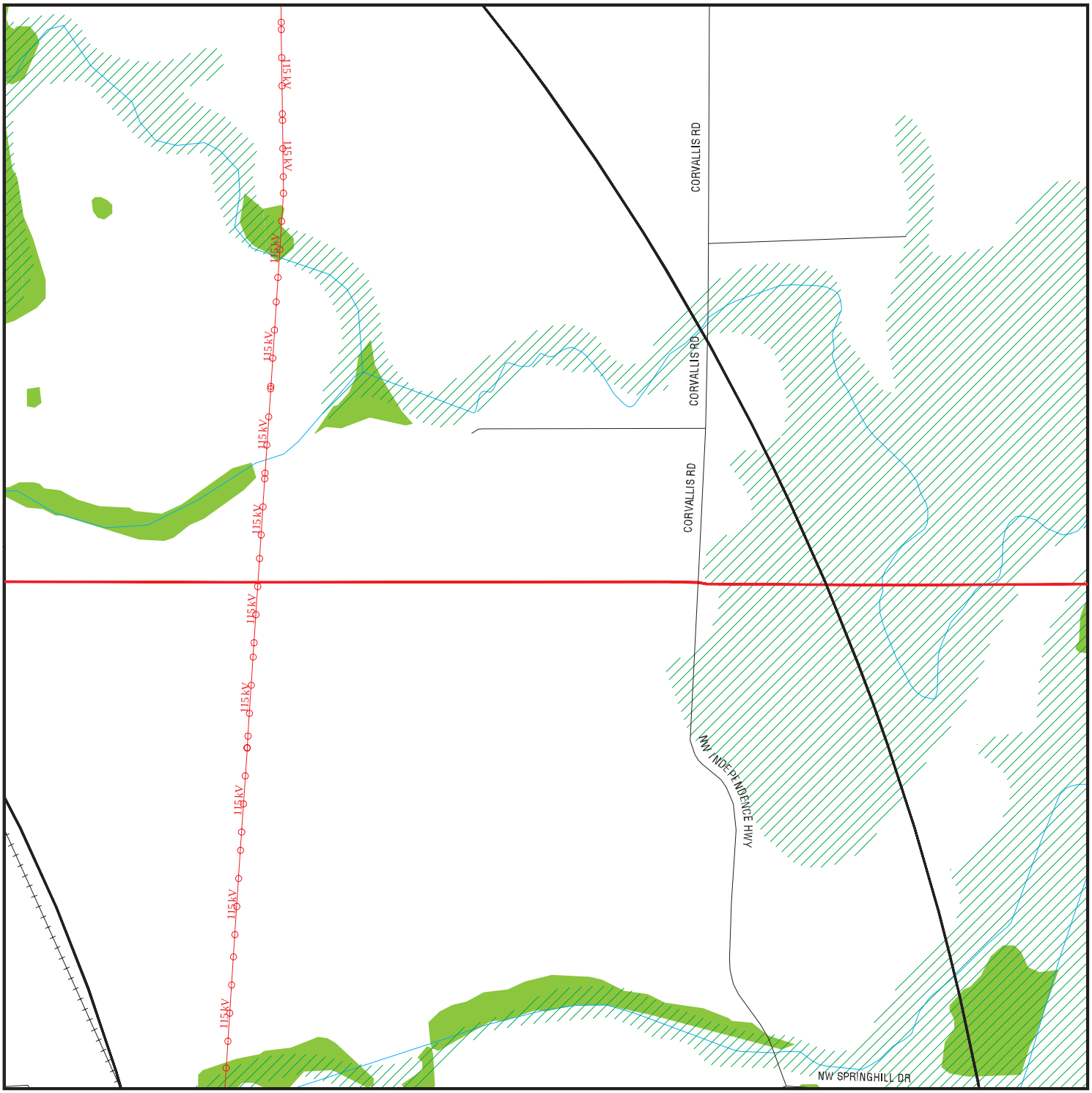
DETAIL MAP 10 of 25 - 1575900.2s



0 1/8 1/4 1/2 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

TARGET PROPERTY:	Camp Adair - South	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - South	CONTACT:	Jennifer Lillis
CITY/STATE:	Monmouth OR	INQUIRY #:	1575900.2s
ZIP:	97361	DATE:	December 16, 2005 9:55 am

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DETAIL MAP 11 of 25 - 1575900.2s

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites

0 1/8 1/4 1/2 Miles

- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

N

TARGET PROPERTY:	Camp Adair - South	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - South	CONTACT:	Jennifer Lillis
CITY/STATE:	Monmouth OR	INQUIRY #:	1575900.2s
ZIP:	97361	DATE:	December 16, 2005 9:55 am

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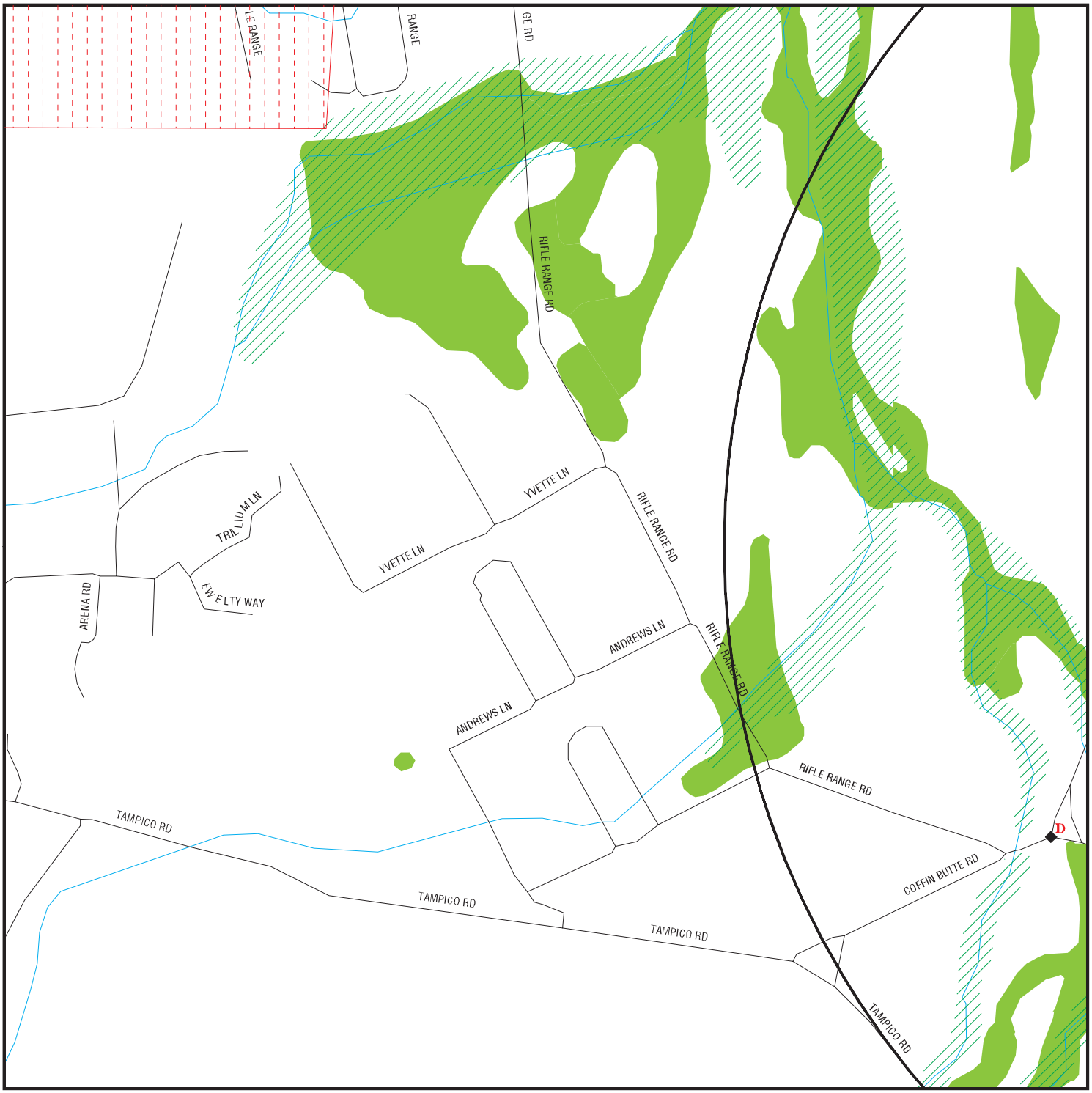
DETAIL MAP 12 of 25 - 1575900.2s



0 1/8 1/4 1/2 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

TARGET PROPERTY:	Camp Adair - South	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - South	CONTACT:	Jennifer Lillis
CITY/STATE:	Monmouth OR	INQUIRY #:	1575900.2s
ZIP:	97361	DATE:	December 16, 2005 9:55 am

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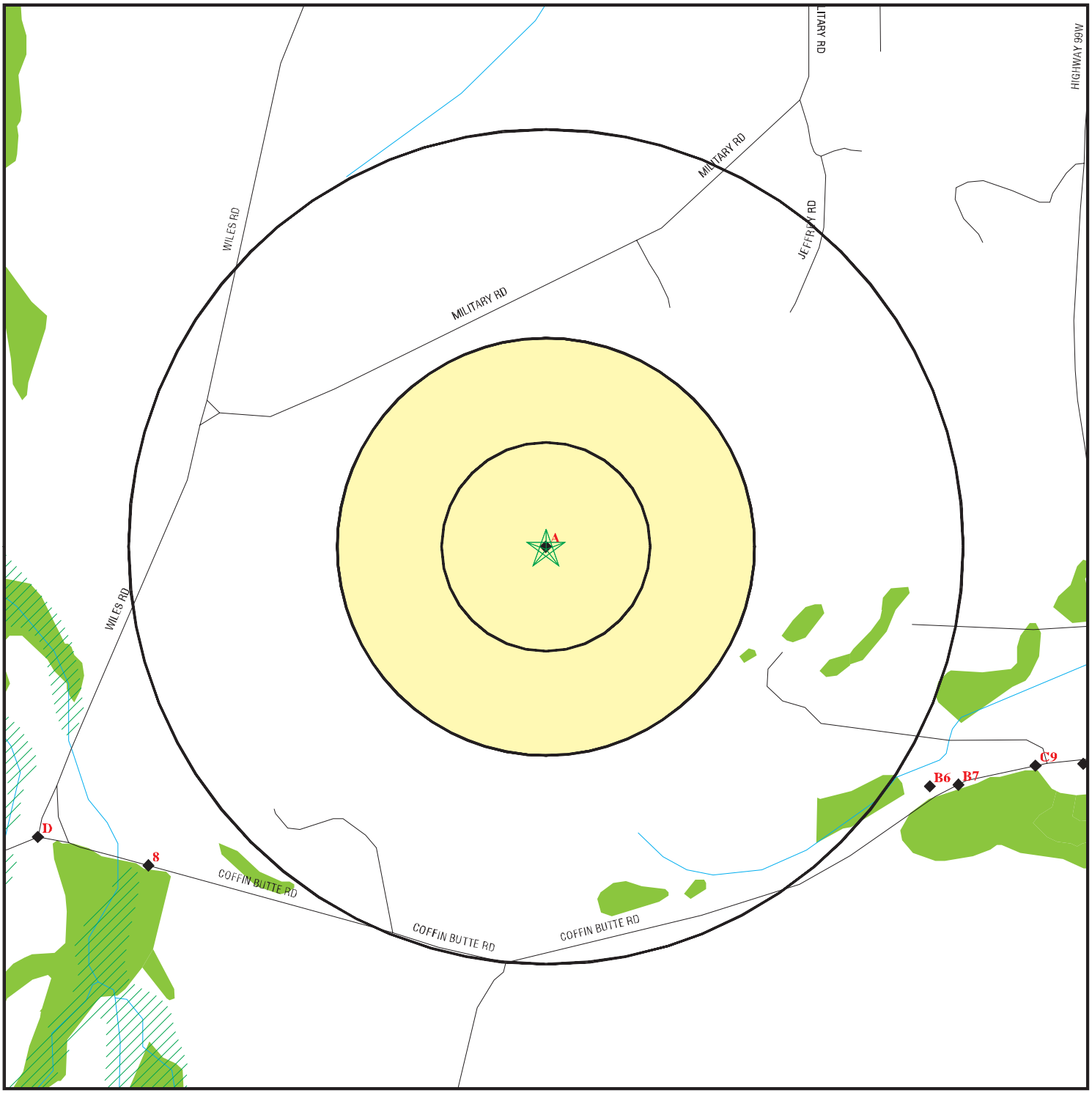
DETAIL MAP 13 of 25 - 1575900.2s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites

0 1/8 1/4 1/2 Miles

- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

N

TARGET PROPERTY:	Camp Adair - South	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - South	CONTACT:	Jennifer Lillis
CITY/STATE:	Monmouth OR	INQUIRY #:	1575900.2s
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DETAIL MAP 14 of 25 - 1575900.2s

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites

0 1/8 1/4 1/2 Miles

- Indian Reservations BIA
- County Boundary
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

N

TARGET PROPERTY:	Camp Adair - South	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - South	CONTACT:	Jennifer Lillis
CITY/STATE:	Monmouth OR	INQUIRY #:	1575900.2s
ZIP:	97361	DATE:	December 16, 2005 9:55 am

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DETAIL MAP 15 of 25 - 1575900.2s

0 1/8 1/4 1/2 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

TARGET PROPERTY:	Camp Adair - South	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - South	CONTACT:	Jennifer Lillis
CITY/STATE:	Monmouth OR	INQUIRY #:	1575900.2s
ZIP:	97361	DATE:	December 16, 2005 9:55 am

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DETAIL MAP 16 of 25 - 1575900.2s

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites

0 1/8 1/4 1/2 Miles

- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Areas of Concern

N

TARGET PROPERTY:	Camp Adair - South	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - South	CONTACT:	Jennifer Lillis
CITY/STATE:	Monmouth OR	INQUIRY #:	1575900.2s
ZIP:	97361	DATE:	December 16, 2005 9:55 am

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DETAIL MAP 17 of 25 - 1575900.2s

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites

0 1/8 1/4 1/2 Miles

- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

TARGET PROPERTY:	Camp Adair - South	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - South	CONTACT:	Jennifer Lillis
CITY/STATE:	Monmouth OR	INQUIRY #:	1575900.2s
ZIP:	97361	DATE:	December 16, 2005 9:55 am

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DETAIL MAP 18 of 25 - 1575900.2s

0 1/8 1/4 1/2 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

TARGET PROPERTY:	Camp Adair - South	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - South	CONTACT:	Jennifer Lillis
CITY/STATE:	Monmouth OR	INQUIRY #:	1575900.2s
ZIP:	97361	DATE:	December 16, 2005 9:55 am

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DETAIL MAP 19 of 25 - 1575900.2s

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

TARGET PROPERTY:	Camp Adair - South	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - South	CONTACT:	Jennifer Lillis
CITY/STATE:	Monmouth OR	INQUIRY #:	1575900.2s
ZIP:	97361	DATE:	December 16, 2005 9:55 am

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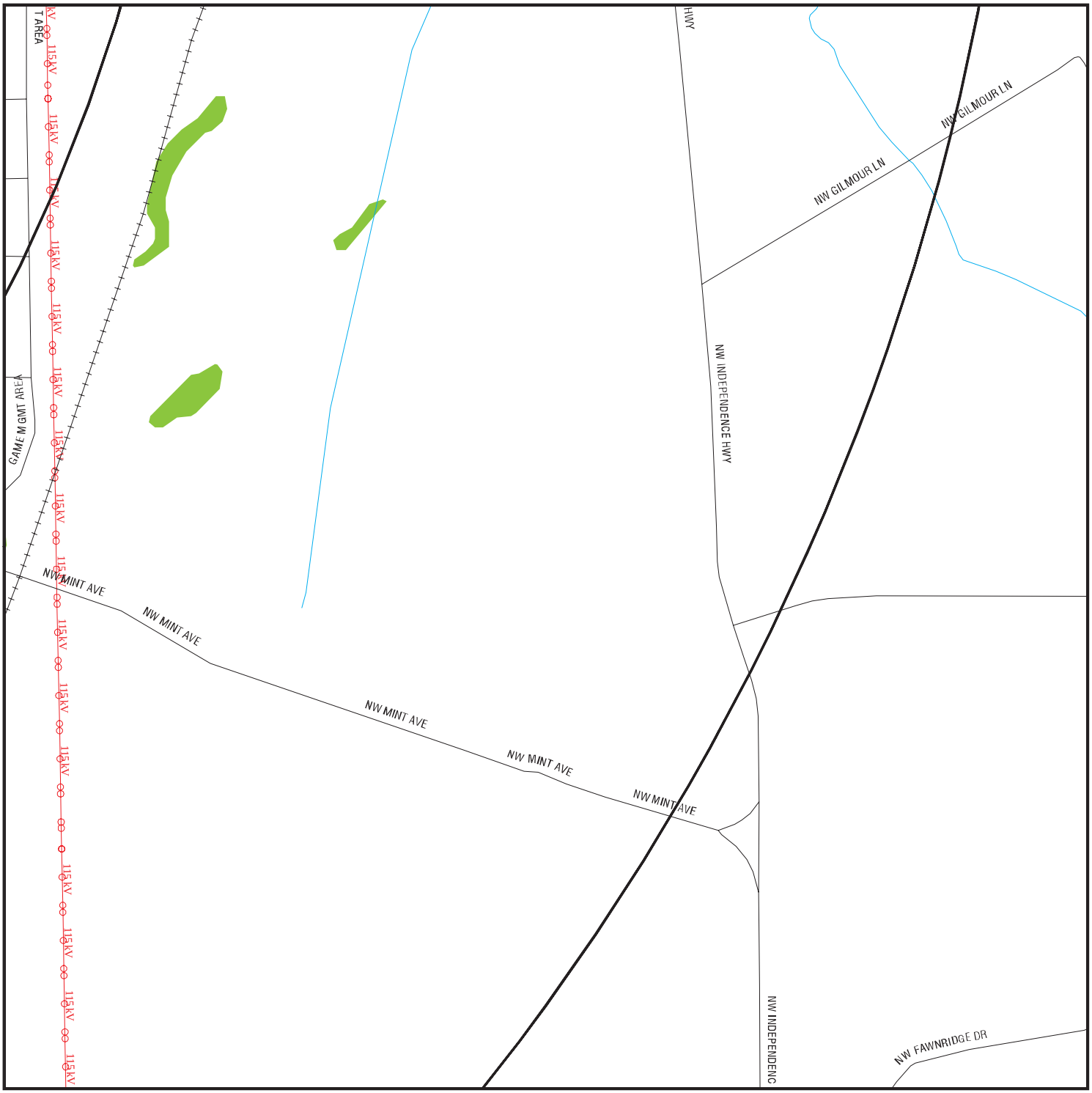
DETAIL MAP 20 of 25 - 1575900.2s



0 1/8 1/4 1/2 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

TARGET PROPERTY:	Camp Adair - South	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - South	CONTACT:	Jennifer Lillis
CITY/STATE:	Monmouth OR	INQUIRY #:	1575900.2s
ZIP:	97361	DATE:	December 16, 2005 9:55 am

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DETAIL MAP 21 of 25 - 1575900.2s

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites

0 1/8 1/4 1/2 Miles

- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

TARGET PROPERTY:	Camp Adair - South	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - South	CONTACT:	Jennifer Lillis
CITY/STATE:	Monmouth OR	INQUIRY #:	1575900.2s
ZIP:	97361	DATE:	December 16, 2005 9:56 am

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DETAIL MAP 22 of 25 - 1575900.2s

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites

0 1/8 1/4 1/2 Miles

- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
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- Areas of Concern

TARGET PROPERTY:	Camp Adair - South	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - South	CONTACT:	Jennifer Lillis
CITY/STATE:	Monmouth OR	INQUIRY #:	1575900.2s
ZIP:	97361	DATE:	December 16, 2005 9:56 am

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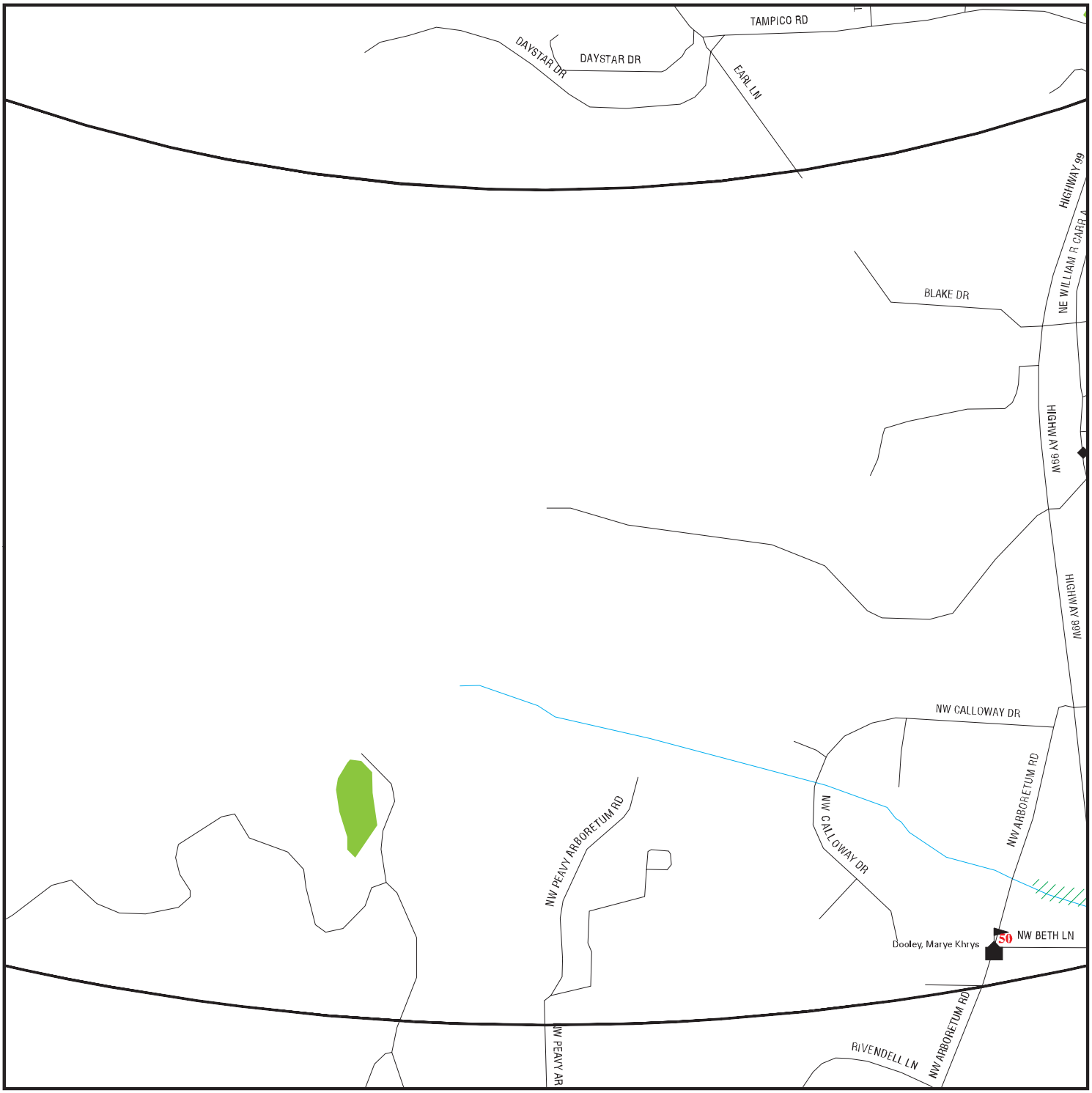
DETAIL MAP 23 of 25 - 1575900.2s



0 1/8 1/4 1/2 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
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- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
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- Indian Reservations BIA
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TARGET PROPERTY:	Camp Adair - South	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - South	CONTACT:	Jennifer Lillis
CITY/STATE:	Monmouth OR	INQUIRY #:	1575900.2s
ZIP:	97361	DATE:	December 16, 2005 9:56 am

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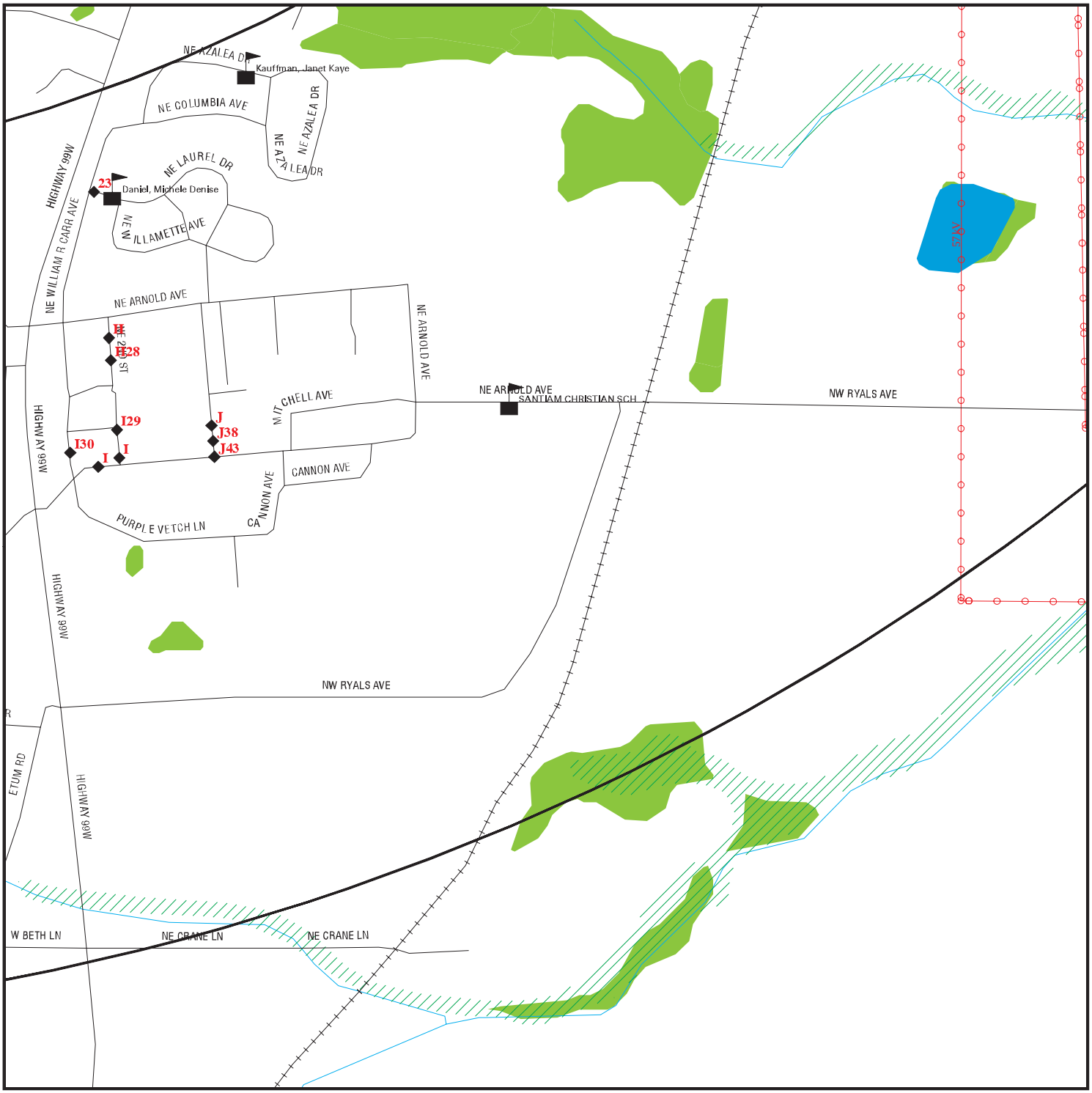
DETAIL MAP 24 of 25 - 1575900.2s



- Target Property
- Sites at elevations higher than or equal to the target property
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- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites

0 1/8 1/4 1/2 Miles

- Indian Reservations BIA
- County Boundary
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

TARGET PROPERTY:	Camp Adair - South	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - South	CONTACT:	Jennifer Lillis
CITY/STATE:	Monmouth OR	INQUIRY #:	1575900.2s
ZIP:	97361	DATE:	December 16, 2005 9:56 am

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DETAIL MAP 25 of 25 - 1575900.2s

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites

0 1/8 1/4 1/2 Miles

- Indian Reservations BIA
- County Boundary
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands
- Areas of Concern

N

TARGET PROPERTY:	Camp Adair - South	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - South	CONTACT:	Jennifer Lillis
CITY/STATE:	Monmouth OR	INQUIRY #:	1575900.2s
ZIP:	97361	DATE:	December 16, 2005 9:56 am

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MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FEDERAL RECORDS								
NPL		3.000	0	0	0	0	0	0
Proposed NPL		3.000	0	0	0	0	0	0
Delisted NPL		3.000	0	0	0	0	0	0
NPL Liens		3.000	0	0	0	0	0	0
CERCLIS		3.000	0	0	0	0	0	0
CERC-NFRAP	X	3.000	0	0	0	0	0	0
CORRACTS		3.000	0	0	0	0	0	0
RCRA TSD		3.000	0	0	0	0	0	0
RCRA Lg. Quan. Gen.		3.000	0	0	0	0	0	0
RCRA Sm. Quan. Gen.	X	3.000	0	0	0	0	0	0
ERNS		3.000	0	0	0	0	0	0
HMIRS		3.000	0	0	0	0	0	0
US ENG CONTROLS		3.000	0	0	0	0	0	0
US INST CONTROL		3.000	0	0	0	0	0	0
DOD		3.000	0	0	0	0	1	1
FUDS		3.000	0	0	0	0	0	0
US BROWNFIELDS		3.000	0	0	0	0	0	0
CONSENT		3.000	0	0	0	0	0	0
ROD		3.000	0	0	0	0	0	0
UMTRA		3.000	0	0	0	0	0	0
ODI		3.000	0	0	0	0	0	0
TRIS		3.000	0	0	0	0	0	0
TSCA		3.000	0	0	0	0	0	0
FTTS		3.000	0	0	0	0	1	1
SSTS		3.000	0	0	0	0	0	0
PADS		3.000	0	0	0	0	0	0
MLTS		3.000	0	0	0	0	0	0
MINES		3.000	0	0	0	0	0	0
FINDS	X	3.000	0	0	0	4	11	15
RAATS		3.000	0	0	0	0	0	0
STATE AND LOCAL RECORDS								
State Haz. Waste - ECSI	X	3.000	0	0	0	1	2	3
OR CRL		3.000	0	0	0	0	0	0
State Landfill		3.000	0	0	0	1	1	2
UIC		3.000	0	0	0	0	0	0
HIST LF		3.000	0	0	0	0	0	0
LUST	X	3.000	0	0	0	0	10	10
AOC COL		3.000	0	0	0	0	0	0
UST		3.000	0	0	0	0	6	6
AST		3.000	0	0	0	3	8	11
OR SPILLS		3.000	0	0	0	1	0	1
OR HAZMAT		3.000	0	0	0	0	2	2
ENG CONTROLS		3.000	0	0	0	0	0	0
INST CONTROL		3.000	0	0	0	0	0	0
OR VCS		3.000	0	0	0	0	0	0
DRYCLEANERS		3.000	0	0	0	0	0	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
BROWNFIELDS		3.000	0	0	0	1	0	1
CDL		3.000	0	0	0	0	0	0
HSIS		3.000	0	0	0	3	10	13
TRIBAL RECORDS								
INDIAN RESERV		3.000	0	0	0	0	0	0
INDIAN LUST		3.000	0	0	0	0	0	0
INDIAN UST		3.000	0	0	0	0	0	0
EDR PROPRIETARY RECORDS								
COAL GAS		3.000	0	0	0	0	0	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Coal Gas Site Search: No site was found in a search of Real Property Scan's ENVIROHAZ database.

A1 Target Property | **CAMP ADAIR-TANK SITE NO.1** | **LUST** | **S101210472**
NE CORNER CARR AVE/VANDERBILT AVE | **N/A**
ADAIR VILLAGE, OR 97330

Site 1 of 5 in cluster A

Actual: 600 ft.

LUST:

Facility ID:	02-94-4159
Region:	Western Region
Cleanup Start:	10-Nov-94
Closed Date:	Not reported
Cleanup Complete:	Not reported

A2 Target Property | **CAMP ADAIR ARMY BASE (FORMER)** | **SHWS - ECSI** | **1006854635**
CAMP ADAIR RD | **FINDS** | **110014168845**
ADAIR VILLAGE, OR 97330

Site 2 of 5 in cluster A

Actual: 600 ft.

FINDS:

Other Pertinent Environmental Activity Identified at Site:
OREGON-DEPARTMENT OF ENVIRONMENTAL QUALITY

ECSI:

State ID Number:	1044	Brown ID	Not reported
Study Area:	False		
Cerclis ID:	0001097161	Tax Lots:	201
Size:	>100 acres	NPL:	False
Orphan:	False	Region ID:	3
Lat/Long:	44.70220 / -123.203	Tax Lots:	201
Township Coord.:	10	Township Zone:	S
Range Coord.:	4	Range Zone:	W
Section Coord.:	17	Qtr Section:	Not reported
Legislative :	17	Further Action:	260
FACA ID :	40091	Score Value:	0
Update Date :	1998-05-14 00:00:00	Created Date:	CONV
Created Time :	/ /		
Updated By :	kpd		

HAZ RELEASED:

Quant. Released:	Not reported
Date:	Not reported
Update Date:	Not reported
Update By:	Not reported
Substance ID :	Not reported
Code :	Not reported
Substance Name :	Not reported
Substance Abbrev. :	Not reported
Substance Categ ID :	Not reported
Substance Sub Categ :	Not reported
Category Level :	Not reported
Created By :	Not reported
Create Date :	Not reported
Substance Alias ID :	Not reported
Sub Alias Name :	Not reported
Rel Comment ID :	Not reported
Release Code :	Not reported
Release Comments :	Not reported

CAMP ADAIR ARMY BASE (FORMER) (Continued) **1006854635**

Sampling Result ID : Not reported
Feature Id : Not reported
Hazard Release Id : Not reported
Medium Code Id : Not reported
Substance Id : Not reported
Unit Code : Not reported
Observation : Not reported
Owner Operator : Not reported
Lab Data : Not reported
Sample Depth : Not reported
Start Date : Not reported
End Date : Not reported
Minimum Concentration : Not reported
Max Concentration : Not reported
Last Update By : Not reported
Last Updated On : Not reported
Sample Comment : Not reported

Alias Name: Adair Military Base
FUDS #F10OR0029
Investigation Status: 208

NARR:
NARR ID: 5731130
NARR Code : Site Contacts
Created By: Not reported
Create Date: 2002-12-17 08:50:04.
Updated By: Not reported
Updated Date: 2002-12-17 08:50:04.
NARR Comments John Kranda, (503)326-6486
(2/11/93 KPD/SAS) Camp Adair was a World War II - era army base that covered hundreds of acres. Apparently, it was primarily used for gunnery practice and military maneuvers. The site has since been subdivided and sold to various parties. A 40-acre
parcel is used by the Oregon National Guard as an artillery range. A portion of the site now owned by Boise Cascade was remediated in 1989-91. (See ECSI #941). In March 1987, a farmer struck an unexploded shell while plowing his field. The shell did
not go off. The field was determined to be on a former artillery practice range. The US Army Corps of Engineers conducted a quick removal action, and no additional encounters with unexploded ordnance have been reported.
Camp Adair RD is about 10.5 miles north of Corvallis on Hwy 99W. The main portion of the camp lies east of 99W between Adair Village and the Polk County line.
US Department of Defense, OPR, PRI,
(2/11/93 KPD/SAS) The US Army Corps of Engineers investigated the site in 1985, and ranked Camp Adair a "3" on a scale of 1-5 ("1" being the highest priority). The Corps will perform a formal site assessment at Camp Adair in accordance with its prio
rities. Site Assessment recommends that any further investigation/remediation be performed under the supervision of the Voluntary Cleanup Program (VCP).
(6/9/04 GMW/SAS) Site also includes at least two LUST files: 02-94-4143 and 02-94-4159.
NARR ID: 5731131
NARR Code : Contamination
Created By: Not reported
Create Date: 2002-12-17 08:50:04.
Updated By: Not reported

CAMP ADAIR ARMY BASE (FORMER) (Continued) **1006854635**

Updated Date: 2002-12-17 08:50:04.
NARR ID: 5731132
NARR Code : Site Location
Created By: Not reported
Create Date: 2002-12-17 08:50:04.
Updated By: Not reported
Updated Date: 2002-12-17 08:50:04.
NARR ID: 5731133
NARR Code : Site Ownership
Created By: Not reported
Create Date: 2002-12-17 08:50:04.
Updated By: Not reported
Updated Date: 2002-12-17 08:50:04.
NARR ID: 5731134
NARR Code : Remedial Action
Created By: Not reported
Create Date: 2002-12-17 08:50:04.
Updated By: GWISTAR
Updated Date: 2004-06-09 10:51:50.

ECWQ:
Owner Site Num: 132355 FACA Id : 40091
Site Name: Camp Adair Army Base (Former)
County Code : 2.00
Owner Name: Camp Adair Army Base
Owner Address: Camp Adair RD
Adair Village, 97330
Lat/Long 44.7022 / -123.2030
Owner Code: SUS

PERMIT:
Permit Number: Not reported Permit Type: Not reported
Permit Agency: Not reported
Permit Comments: Not reported

ADMIN ACT:
Admin ID: 721391 Action ID: 9425
Agency ID : Dept Of Environmental Quality Start Date: 1993-02-08 00:00:00
Further Action: Not reported Region ID: Headquarters
Complete Date: 1993-02-08 00:00:00 Substance Code: SAS
Rank Value: 0 Cleanup Flag: False
Updated By: kpd Update Date: 1995-09-05 00:00:00
Created By: Not reported Create Date: 2002-12-17 08:50:22.
Employee Id: 301
Comments : Not reported
Administrative Action: SITE EVALUATION
Admin Action Category: Not reported
Admin Flag: True
Admin Action Code Flag: False
Admin Action : SITE EVALUATION

Admin ID: 711368 Action ID: 9426
Agency ID : Dept Of Environmental Quality Start Date: 1997-01-06 00:00:00
Further Action: Low Region ID: Western Region
Complete Date: 1997-01-06 00:00:00 Substance Code: SAS
Rank Value: 0 Cleanup Flag: False
Updated By: MENGLIS Update Date: 2003-10-15 14:52:16.
Created By: Not reported Create Date: 2002-12-17 08:50:22.
Employee Id: 538

CAMP ADAIR ARMY BASE (FORMER) (Continued) **1006854635**

Comments : FTA for EPA Site Inspection of Camp Adair Site. See also ECSI #832 and #941.
Administrative Action: SITE PRIORITY EVALUATION FOR FURTHER ACTION
Admin Action Category: Not reported
Admin Flag: True
Admin Action Code Flag: False
Admin Action : SITE PRIORITY EVALUATION FOR FURTHER ACTION

Admin ID:	716200	Action ID:	9424
Agency ID :	Dept Of Environmental Quality	Start Date:	1990-02-13 00:00:00
Further Action:	Not reported	Region ID:	Headquarters
Complete Date:	Not reported	Substance Code:	SAS
Rank Value:	0	Cleanup Flag:	False
Updated By:	kpd	Update Date:	1995-09-05 00:00:00
Created By:	Not reported	Create Date:	2002-12-17 08:50:22.
Employee Id:	26		

Comments : Not reported
Administrative Action: Site added to database
Admin Action Category: Not reported
Admin Flag: True
Admin Action Code Flag: False
Admin Action : Site added to database

Admin ID:	715843	Action ID:	9421
Agency ID :	Environmantal Protection Agency	Start Date:	1995-04-20 00:00:00
Further Action:	Not reported	Region ID:	Not reported
Complete Date:	Not reported	Substance Code:	Not reported
Rank Value:	0	Cleanup Flag:	False
Updated By:	dmc	Update Date:	1995-09-12 00:00:00
Created By:	Not reported	Create Date:	2002-12-17 08:50:22.
Employee Id:	Not reported		

Comments : Not reported
Administrative Action: Site added to CERCLIS
Admin Action Category: Not reported
Admin Flag: True
Admin Action Code Flag: False
Admin Action : Site added to CERCLIS

Admin ID:	720679	Action ID:	9437
Agency ID :	Dept Of Environmental Quality	Start Date:	1993-02-09 00:00:00
Further Action:	Not reported	Region ID:	Headquarters
Complete Date:	1993-02-09 00:00:00	Substance Code:	SAS
Rank Value:	0	Cleanup Flag:	False
Updated By:	dmc	Update Date:	1995-08-17 00:00:00
Created By:	Not reported	Create Date:	2002-12-17 08:50:22.
Employee Id:	301		

Comments : Not reported
Administrative Action: Listing Review completed
Admin Action Category: Not reported
Admin Flag: True
Admin Action Code Flag: False
Admin Action : Listing Review completed

Admin ID:	720680	Action ID:	9449
Agency ID :	Dept Of Environmental Quality	Start Date:	1993-02-10 00:00:00
Further Action:	Not reported	Region ID:	Headquarters
Complete Date:	Not reported	Substance Code:	SAS
Rank Value:	0	Cleanup Flag:	False

CAMP ADAIR ARMY BASE (FORMER) (Continued) **1006854635**

Updated By:	kpd	Update Date:	1995-09-05 00:00:00
Created By:	Not reported	Create Date:	2002-12-17 08:50:22.
Employee Id:	301		
Comments :	Not reported		
Administrative Action:	Insufficient information to list		
Admin Action Category:	Not reported		
Admin Flag:	True		
Admin Action Code Flag:	False		
Admin Action :	Insufficient information to list		

Admin ID:	720681	Action ID:	9496
Agency ID :	Dept Of Environmental Quality	Start Date:	1993-02-11 00:00:00
Further Action:	Low	Region ID:	Headquarters
Complete Date:	1993-02-11 00:00:00	Substance Code:	SAS
Rank Value:	0	Cleanup Flag:	False
Updated By:	kpd	Update Date:	1995-09-05 00:00:00
Created By:	Not reported	Create Date:	2002-12-17 08:50:22.
Employee Id:	301		
Comments :	Options letter (2/18/93) sent by LSK to US Army Corps of Engineers, response expected within 2 weeks of receipt.		
Administrative Action:	State Basic Preliminary Assessment recommended (PA)		
Admin Action Category:	Not reported		
Admin Flag:	True		
Admin Action Code Flag:	False		
Admin Action :	State Basic Preliminary Assessment recommended (PA)		

DISPOSAL:

Disposal ID:	Not reported	Feature ID:	Not reported
Medium :	Not reported		
Treatment :	Not reported		
Disposal Method:	Not reported		
Start Date:	Not reported	End Date:	Not reported
Disposal Flag:	Not reported	Disposal Qty:	Not reported
Unit Code:	Not reported		
Depth :	Not reported		
Monitor :	Not reported		
Manifest Num :	Not reported		
Removed By :	Not reported		
Loc Comments:	Not reported		
Disposal Sub ID:	Not reported		
Substance ID:	Not reported		
Created By:	Not reported		
Create Date:	Not reported		

FEATURE:

Feature Id :	Not reported
Site Id :	Not reported
Feature Code :	Not reported
Relative Position :	Not reported
Hazard Rel Id :	Not reported
Region Code :	Not reported
Lat Long Method :	Not reported
Lat Long Source :	Not reported
County Code :	Not reported
Refrence Id :	Not reported
Twnshp Coord :	Not reported
Township Zone :	Not reported
Range Coord :	Not reported

CAMP ADAIR ARMY BASE (FORMER) (Continued) **1006854635**

Range Zone : Not reported
Section Coord : Not reported
Qtr Section Coord : Not reported
Address : Not reported
Not reported
Zip Plus : Not reported
Lat/Long : Not reported
Lat/Lon Decimal : Not reported
Feature Size : Not reported
Est Accuracy : Not reported
Created On Date : Not reported
Created By Prgm : Not reported
Last Updated By : Not reported
Last Updated On : Not reported
Comment : Not reported

WELL:
Well ID: Not reported
Water Resource Code: Not reported
Effective Date: Not reported
Aquifer Code: Not reported
Ground Station Key: Not reported

OPERATIONS:
Operation Id : 132355
Operation Status : Inactive
Common Name : Camp Adair Army Base
Yrs of Operation : Not reported
Comments : Not reported
Updated By : kpd
Updated Date : 1995-09-05 00:00:00

Process Code ID: Not reported
Years Of Process: Not reported
Created By: Not reported
Created Date: Not reported

Operations SIC Id: 196038
SIC Code: 9711
Created By: Not reported
Created Date: 2002-12-17 08:50:34.

A3 Target Property **CAMP ADAIR-TANK SITE NO.1** **FINDS** **1006867510**
NE CORNER CARR AVE/VANDERBILT AVE **110014304403**
ADAIR VILLAGE, OR 97330

Site 3 of 5 in cluster A

Actual: 600 ft.

FINDS:
Other Pertinent Environmental Activity Identified at Site:
OREGON-DEPARTMENT OF ENVIRONMENTAL QUALITY

A4 Target Property | **CAMP ADAIR** | **CERC-NFRAP** | **1003880760**
T10S R4W R5W WM 8M N OF CITY | **OR0001097161**
CORVALLIS, OR 97330

Actual: 600 ft.

Site 4 of 5 in cluster A

CERCLIS-NFRAP Classification Data:
Federal Facility: Not a Federal Facility
Non NPL Code: NFRAP
NPL Status: Not on the NPL

CERCLIS-NFRAP Assessment History:

Assessment:	DISCOVERY	Completed:	04/20/1995
Assessment:	PRELIMINARY ASSESSMENT	Completed:	10/02/1995
Assessment:	SITE INSPECTION	Completed:	09/10/1996
Assessment:	ARCHIVE SITE	Completed:	09/10/1996

A5 Target Property | **USACE CAMP ADAIR AFS REMEDIATION SITE** | **RCRA-SQG FINDS** | **1000913273**
ADAIR VILLAGE | **OR0000375808**
CORVALLIS, OR 97330

Actual: 600 ft.

Site 5 of 5 in cluster A

RCRAInfo:
Owner: US ARMY CORPS OF ENGINEERS - PORTL DIST
(503) 808-4913
EPA ID: OR0000375808

Contact: MICHAEL J. GROSS
(503) 808-4913

Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
OREGON-DEPARTMENT OF ENVIRONMENTAL QUALITY
RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

DOD Region WNW > 1 8232 ft. | **CAMP ADAIR MILITARY RESERVATION** | **DOD** | **CUSA004470**
N/A
CAMP ADAIR MILITARY RESER (County), OR

FEDERAL LANDS:

Feature 1:	Army DOD
Feature 2:	Not reported
Feature 3:	Not reported
Agency:	DOD
URL:	Not reported
Name 1:	Camp Adair Military Reservation
Name 2:	Not reported
Name 3:	Not reported
State:	OR

B6 **POWER RESOURCES COOPERATIVE** **HSIS** **1002998171**
ESE **29160 COFFIN BUTTE RD** **N/A**
1/2-1 **CORVALLIS, OR 97330**
2862 ft.

Site 1 of 2 in cluster B

Relative:
Lower

Actual:
236 ft.

HSIS:

Emergency Contact:	STEVE KING
Emergency Procedure: POSTED IN PLANT	
Chemical Trade Name:	ANTIFREEZE
Manager Name:	KEVIN WATKINS
Mailing Address:	29160 COFFIN BUTTE RD CORVALLIS, OR 97330
Mailing County:	BENTON
Day Phone:	5417453812
Employee File #:	048686
No. of Employees:	2
Placard:	No
Business Type:	POWER GENERATION
Sprinkler System:	No
Business Phone:	5417453812
Department Or Division Of Company:	Not reported
Facility Has Written Emergency Plan:	Yes
Company Name:	POWER RESOURCES COOPERATIVE
Fire Dept Code:	0001
Physical State :	Not reported
Physical State Of The Substance:	LIQUID
Average Amount Possessed During The Year Code:	04
Description Of The Avg Qnty Code:	50-199
Maximum Amount Possessed During The Year Code:	04
Description Of The Max Qnty Code:	50-199
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	
Type Code:	E
Description:	PLASTIC OR NON-METALLIC DRUM
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	3082
Chemical Abstract Service Identifier Number:	107211
First Hazardous Classification Code For Chemical:	6.3
Hazard Classification 1 Of The Chemical:	Acute Health Hazard
Second Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 2 Of The Chemical:	Not reported
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Mixture
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	ETHYLENE GLYCOL
Contains 112R :	No
Contains EHS:	No

POWER RESOURCES COOPERATIVE (Continued) **1002998171**

Contains 313:	Yes
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	221119
NAICS Desc 1:	OTHER ELECTRIC POWER GENERATION
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	STEVE KING
Emergency Procedure: POSTED IN PLANT	
Chemical Trade Name:	WASTE ANTIFREEZE
Manager Name:	KEVIN WATKINS
Mailing Address:	29160 COFFIN BUTTE RD CORVALLIS, OR 97330
Mailing County:	BENTON
Day Phone:	5417453812
Employee File #:	048686
No. of Employees:	2
Placard:	No
Business Type:	POWER GENERATION
Sprinkler System:	No
Business Phone:	5417453812
Department Or Division Of Company:	Not reported
Facility Has Written Emergency Plan:	Yes
Company Name:	POWER RESOURCES COOPERATIVE
Fire Dept Code:	0001
Physical State :	Not reported
Physical State Of The Substance:	LIQUID
Average Amount Possessed During The Year Code:	04
Description Of The Avg Qnty Code:	50-199
Maximum Amount Possessed During The Year Code:	10
Description Of The Max Qnty Code:	200-499
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	
Type Code:	E
Description:	PLASTIC OR NON-METALLIC DRUM
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	3082
Chemical Abstract Service Identifier Number:	107211
First Hazardous Classification Code For Chemical:	6.3
Hazard Classification 1 Of The Chemical:	Acute Health Hazard
Second Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 2 Of The Chemical:	Not reported
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Mixture
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported

POWER RESOURCES COOPERATIVE (Continued) **1002998171**

Most Hazardous Ingridient:	ETHYLENE GLYCOL
Contains 112R :	Not reported
Contains EHS:	Not reported
Contains 313:	Yes
Fertilizer:	Not reported
Pesticide:	Not reported
NAICS Code 1:	221119
NAICS Desc 1:	OTHER ELECTRIC POWER GENERATION
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	STEVE KING
Emergency Procedure: POSTED IN PLANT	
Chemical Trade Name:	INDUSTRIAL OIL
Manager Name:	KEVIN WATKINS
Mailing Address:	29160 COFFIN BUTTE RD CORVALLIS, OR 97330
Mailing County:	BENTON
Day Phone:	5417453812
Employee File #:	048686
No. of Employees:	2
Placard:	No
Business Type:	POWER GENERATION
Sprinkler System:	No
Business Phone:	5417453812
Department Or Division Of Company:	Not reported
Facility Has Written Emergency Plan:	Yes
Company Name:	POWER RESOURCES COOPERATIVE
Fire Dept Code:	0001
Physical State :	Not reported
Physical State Of The Substance:	LIQUID
Average Amount Possessed During The Year Code:	20
Description Of The Avg Qnty Code:	1,000-4,999
Maximum Amount Possessed During The Year Code:	20
Description Of The Max Qnty Code:	1,000-4,999
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	
Type Code:	A
Description:	ABOVEGROUND TANK
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	Not reported
Chemical Abstract Service Identifier Number:	64742525
First Hazardous Classification Code For Chemical:	4.5
Hazard Classification 1 Of The Chemical:	Combustible Materials
Second Hazardous Classification Code For Chemical:	6.4
Hazard Classification 2 Of The Chemical:	Chronic Health Hazard
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Mixture
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported

POWER RESOURCES COOPERATIVE (Continued) **1002998171**

Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	Not reported
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	HYDROTREATED HEAVY NAPHTHENIC
Contains 112R :	Not reported
Contains EHS:	Not reported
Contains 313:	Not reported
Fertilizer:	Not reported
Pesticide:	Not reported
NAICS Code 1:	221119
NAICS Desc 1:	OTHER ELECTRIC POWER GENERATION
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	STEVE KING
Emergency Procedure: POSTED IN PLANT	
Chemical Trade Name:	WASTE OIL
Manager Name:	KEVIN WATKINS
Mailing Address:	29160 COFFIN BUTTE RD CORVALLIS, OR 97330
Mailing County:	BENTON
Day Phone:	5417453812
Employee File #:	048686
No. of Employees:	2
Placard:	No
Business Type:	POWER GENERATION
Sprinkler System:	No
Business Phone:	5417453812
Department Or Division Of Company:	Not reported
Facility Has Written Emergency Plan:	Yes
Company Name:	POWER RESOURCES COOPERATIVE
Fire Dept Code:	0001
Physical State :	Not reported
Physical State Of The Substance:	LIQUID
Average Amount Possessed During The Year Code:	20
Description Of The Avg Qnty Code:	1,000-4,999
Maximum Amount Possessed During The Year Code:	20
Description Of The Max Qnty Code:	1,000-4,999
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	
Type Code:	A
Description:	ABOVEGROUND TANK
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1270
Chemical Abstract Service Identifier Number:	64742547
First Hazardous Classification Code For Chemical:	4.5
Hazard Classification 1 Of The Chemical:	Combustible Materials
Second Hazardous Classification Code For Chemical:	6.4
Hazard Classification 2 Of The Chemical:	Chronic Health Hazard
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported

POWER RESOURCES COOPERATIVE (Continued) **1002998171**

Is Substance Pure Or Mixture:	Mixture
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	Not reported
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	PETROLEUM HYDROCARBONS
Contains 112R :	Not reported
Contains EHS:	Not reported
Contains 313:	Not reported
Fertilizer:	Not reported
Pesticide:	Not reported
NAICS Code 1:	221119
NAICS Desc 1:	OTHER ELECTRIC POWER GENERATION
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported

B7 **POWER RESOURCES COOPERATIVE** **FINDS** **1004579952**
ESE **29160 COFFIN BUTTE RD.** **AST** **110001657644**
1/2-1 **CORVALLIS, OR 97330**
3012 ft.

Site 2 of 2 in cluster B

Relative:
Lower

Actual:
235 ft.

FINDS:
Other Pertinent Environmental Activity Identified at Site:
AEROMETRIC INFORMATION RETRIEVAL SYSTEM/AIRS FACILITY SYSTEM
OREGON-DEPARTMENT OF ENVIRONMENTAL QUALITY

AST:

Employer File Number:	048686
Hazardous Substance:	INDUSTRIAL OIL
Reporting Quantities:	1,000-4,999
Quantity Units:	GALLONS
Physical State:	LIQUID
Storage 1:	ABOVEGROUND TANK

Employer File Number:	048686
Hazardous Substance:	WASTE OIL
Reporting Quantities:	1,000-4,999
Quantity Units:	GALLONS
Physical State:	LIQUID
Storage 1:	ABOVEGROUND TANK

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8 **VALLEY LANDFILLS INC** **HSIS** **S104070733**
SW **29000 COFFIN BUTTE RD** **AST** **N/A**
1/2-1 **CORVALLIS, OR 97330**
3221 ft.

Relative:
Lower

Actual:
255 ft.

HSIS:

Emergency Contact:		BRIAN STONE
Emergency Procedure:	LTF OFFICE	
Chemical Trade Name:		HYDROGEN
Manager Name:		Not reported
Mailing Address:		28972 COFFIN BUTTE RD CORVALLIS, OR 97330
Mailing County:		BENTON
Day Phone:		5417452018
Employee File #:		072809
No. of Employees:		1

VALLEY LANDFILLS INC (Continued) **S104070733**

Placard:	Yes
Business Type:	TREATING LEACHATE
Sprinkler System:	No
Business Phone:	5417452018
Department Or Division Of Company:	LEACHATE TREATMENT FAC
Facility Has Written Emergency Plan:	Yes
Company Name:	VALLEY LANDFILLS INC
Fire Dept Code:	0001
Physical State :	Not reported
Physical State Of The Substance:	GAS
Average Amount Possessed During The Year Code:	04
Description Of The Avg Qnty Code:	50-199
Maximum Amount Possessed During The Year Code:	04
Description Of The Max Qnty Code:	50-199
Applicable Unit Of Measure Code:	3
Description Of The Unit Of Measure:	CUBIC FEET
Storage Container:	
Type Code:	L
Description:	CYLINDER
Pressure of Hazardous Substance Code:	2
Pressure Description:	GREATER THAN NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1049
Chemical Abstract Service Identifier Number:	1333740
First Hazardous Classification Code For Chemical:	2.1
Hazard Classification 1 Of The Chemical:	Flammable Gases
Second Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 2 Of The Chemical:	Not reported
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Mixture
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	Yes
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	HYDROGEN
Contains 112R :	No
Contains EHS:	No
Contains 313:	No
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	562212
NAICS Desc 1:	SOLID WASTE LANDFILL
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	BRIAN STONE
Emergency Procedure: LTF OFFICE	
Chemical Trade Name:	CAUSTIC SODA
Manager Name:	Not reported
Mailing Address:	28972 COFFIN BUTTE RD CORVALLIS, OR 97330
Mailing County:	BENTON

VALLEY LANDFILLS INC (Continued) **S104070733**

Day Phone:	5417452018
Employee File #:	072809
No. of Employees:	1
Placard:	Yes
Business Type:	TREATING LEACHATE
Sprinkler System:	No
Business Phone:	5417452018
Department Or Division Of Company:	LEACHATE TREATMENT FAC
Facility Has Written Emergency Plan:	Yes
Company Name:	VALLEY LANDFILLS INC
Fire Dept Code:	0001
Physical State :	Not reported
Physical State Of The Substance:	LIQUID
Average Amount Possessed During The Year Code:	04
Description Of The Avg Qnty Code:	50-199
Maximum Amount Possessed During The Year Code:	04
Description Of The Max Qnty Code:	50-199
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	
Type Code:	D
Description:	STEEL DRUM
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1824
Chemical Abstract Service Identifier Number:	1310732
First Hazardous Classification Code For Chemical:	8.0
Hazard Classification 1 Of The Chemical:	Corrosives
Second Hazardous Classification Code For Chemical:	6.3
Hazard Classification 2 Of The Chemical:	Acute Health Hazard
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Mixture
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	Yes
Chemical Is A Toxic 313 Chemical:	Not reported
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	SODIUM HYDROXIDE
Contains 112R :	Not reported
Contains EHS:	Not reported
Contains 313:	Not reported
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	562212
NAICS Desc 1:	SOLID WASTE LANDFILL
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	BRIAN STONE
Emergency Procedure: LTF OFFICE	
Chemical Trade Name:	MICRO TREAT (KING LEE)
Manager Name:	Not reported

VALLEY LANDFILLS INC (Continued) **S104070733**

Mailing Address:	28972 COFFIN BUTTE RD CORVALLIS, OR 97330
Mailing County:	BENTON
Day Phone:	5417452018
Employee File #:	072809
No. of Employees:	1
Placard:	Yes
Business Type:	TREATING LEACHATE
Sprinkler System:	No
Business Phone:	5417452018
Department Or Division Of Company:	LEACHATE TREATMENT FAC
Facility Has Written Emergency Plan:	Yes
Company Name:	VALLEY LANDFILLS INC
Fire Dept Code:	0001
Physical State :	Not reported
Physical State Of The Substance:	LIQUID
Average Amount Possessed During The Year Code:	04
Description Of The Avg Qnty Code:	50-199
Maximum Amount Possessed During The Year Code:	04
Description Of The Max Qnty Code:	50-199
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	
Type Code:	N
Description:	PLASTIC BOTTLE, JUG, BUCKET
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	270
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	Not reported
Chemical Abstract Service Identifier Number:	Not reported
First Hazardous Classification Code For Chemical:	6.3
Hazard Classification 1 Of The Chemical:	Acute Health Hazard
Second Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 2 Of The Chemical:	Not reported
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Mixture
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	Yes
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	PROPRIETARY COMBINATION
Contains 112R :	No
Contains EHS:	No
Contains 313:	No
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	562212
NAICS Desc 1:	SOLID WASTE LANDFILL
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	BRIAN STONE

VALLEY LANDFILLS INC (Continued) **S104070733**

Emergency Procedure: LTF OFFICE	
Chemical Trade Name:	OXONIA ACTIVE
Manager Name:	Not reported
Mailing Address:	28972 COFFIN BUTTE RD CORVALLIS, OR 97330
Mailing County:	BENTON
Day Phone:	5417452018
Employee File #:	072809
No. of Employees:	1
Placard:	Yes
Business Type:	TREATING LEACHATE
Sprinkler System:	No
Business Phone:	5417452018
Department Or Division Of Company:	LEACHATE TREATMENT FAC
Facility Has Written Emergency Plan:	Yes
Company Name:	VALLEY LANDFILLS INC
Fire Dept Code:	0001
Physical State :	Not reported
Physical State Of The Substance:	LIQUID
Average Amount Possessed During The Year Code:	04
Description Of The Avg Qnty Code:	50-199
Maximum Amount Possessed During The Year Code:	04
Description Of The Max Qnty Code:	50-199
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	
Type Code:	E
Description:	PLASTIC OR NON-METALLIC DRUM
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	Not reported
Chemical Abstract Service Identifier Number:	7722841
First Hazardous Classification Code For Chemical:	8.0
Hazard Classification 1 Of The Chemical:	Corrosives
Second Hazardous Classification Code For Chemical:	6.5
Hazard Classification 2 Of The Chemical:	Pesticide
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Mixture
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Yes
Does The Chemical Contain A 112r Chemical:	Yes
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	1677-129
Most Hazardous Ingridient:	HYDROGEN PEROXIDE
Contains 112R :	Yes
Contains EHS:	Yes
Contains 313:	Yes
Fertilizer:	No
Pesticide:	Yes
NAICS Code 1:	562212
NAICS Desc 1:	SOLID WASTE LANDFILL
NAICS Code 2:	Not reported

VALLEY LANDFILLS INC (Continued) **S104070733**

NAICS Desc 2:	Not reported
Emergency Contact:	BRIAN STONE
Emergency Procedure: LTF OFFICE	
Chemical Trade Name:	HYDROCHLORIC ACID
Manager Name:	Not reported
Mailing Address:	28972 COFFIN BUTTE RD CORVALLIS, OR 97330
Mailing County:	BENTON
Day Phone:	5417452018
Employee File #:	072809
No. of Employees:	1
Placard:	Yes
Business Type:	TREATING LEACHATE
Sprinkler System:	No
Business Phone:	5417452018
Department Or Division Of Company:	LEACHATE TREATMENT FAC
Facility Has Written Emergency Plan:	Yes
Company Name:	VALLEY LANDFILLS INC
Fire Dept Code:	0001
Physical State :	Not reported
Physical State Of The Substance:	LIQUID
Average Amount Possessed During The Year Code:	20
Description Of The Avg Qnty Code:	1,000-4,999
Maximum Amount Possessed During The Year Code:	21
Description Of The Max Qnty Code:	5,000-9,999
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	
Type Code:	A
Description:	ABOVEGROUND TANK
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1789
Chemical Abstract Service Identifier Number:	7647010
First Hazardous Classification Code For Chemical:	8.0
Hazard Classification 1 Of The Chemical:	Corrosives
Second Hazardous Classification Code For Chemical:	6.3
Hazard Classification 2 Of The Chemical:	Acute Health Hazard
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Mixture
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Yes
Does The Chemical Contain A 112r Chemical:	Yes
Chemical Is A Toxic 313 Chemical:	Yes
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	HYDROCHLORIC ACID
Contains 112R :	No
Contains EHS:	No
Contains 313:	No
Fertilizer:	No
Pesticide:	No

VALLEY LANDFILLS INC (Continued) **S104070733**

NAICS Code 1: 562212
NAICS Desc 1: SOLID WASTE LANDFILL
NAICS Code 2: Not reported
NAICS Desc 2: Not reported

Click this hyperlink while viewing on your computer to access
9 additional OR HSIS record(s) in the EDR Site Report.

AST:
Employer File Number: 072809
Hazardous Substance: HYDROCHLORIC ACID
Reporting Quantities: 5,000-9,999
Quantity Units: GALLONS
Physical State: LIQUID
Storage 1: ABOVEGROUND TANK

C9 **VALLEY LANDFILLS INC** **HSIS** **1006859227**
ESE **29175 COFFIN BUTTE RD** **AST** **N/A**
1/2-1 **CORVALLIS, OR 97330**
3392 ft.

Site 1 of 2 in cluster C

Relative: Lower

Actual: 232 ft.

HSIS:
Emergency Contact: BRIAN STONE
Emergency Procedure: CASHIERS OFFICE
Chemical Trade Name: ACETYLENE
Manager Name: Not reported
Mailing Address: 28972 COFFIN BUTTE RD
CORVALLIS, OR 97330
Mailing County: BENTON
Day Phone: 5417457144
Employee File #: 033888
No. of Employees: 8
Placard: Yes
Business Type: MUNICIPAL SOLID WASTE DISPOSAL
Sprinkler System: No
Business Phone: 5417457144
Department Or Division Of Company: COFFIN BUTTE LANDFILL
Facility Has Written Emergency Plan: Yes
Company Name: VALLEY LANDFILLS INC
Fire Dept Code: 0001
Physical State : Not reported
Physical State Of The Substance: GAS
Average Amount Possessed During The Year Code: 04
Description Of The Avg Qnty Code: 50-199
Maximum Amount Possessed During The Year Code: 04
Description Of The Max Qnty Code: 50-199
Applicable Unit Of Measure Code: 3
Description Of The Unit Of Measure: CUBIC FEET
Storage Container:
Type Code: L
Description: CYLINDER
Pressure of Hazardous Substance Code: 2
Pressure Description: GREATER THAN NORMAL PRESSURE
Temperature of The Hazardous Substance Code: 4
Temperature Description: NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year: 365
Is The Substance Protected A Trade Secret: No
United Nations/north America 4 Digit Classification Number: 1001

VALLEY LANDFILLS INC (Continued) **1006859227**

Chemical Abstract Service Identifier Number:	74862
First Hazardous Classification Code For Chemical:	2.1
Hazard Classification 1 Of The Chemical:	Flammable Gases
Second Hazardous Classification Code For Chemical:	6.3
Hazard Classification 2 Of The Chemical:	Acute Health Hazard
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Pure
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	ACETYLENE
Contains 112R :	No
Contains EHS:	No
Contains 313:	No
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	562212
NAICS Desc 1:	SOLID WASTE LANDFILL
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	BRIAN STONE
Emergency Procedure: CASHIERS OFFICE	
Chemical Trade Name:	OXYGEN
Manager Name:	Not reported
Mailing Address:	28972 COFFIN BUTTE RD CORVALLIS, OR 97330
Mailing County:	BENTON
Day Phone:	5417457144
Employee File #:	033888
No. of Employees:	8
Placard:	Yes
Business Type:	MUNICIPAL SOLID WASTE DISPOSAL
Sprinkler System:	No
Business Phone:	5417457144
Department Or Division Of Company:	COFFIN BUTTE LANDFILL
Facility Has Written Emergency Plan:	Yes
Company Name:	VALLEY LANDFILLS INC
Fire Dept Code:	0001
Physical State :	Not reported
Physical State Of The Substance:	GAS
Average Amount Possessed During The Year Code:	04
Description Of The Avg Qnty Code:	50-199
Maximum Amount Possessed During The Year Code:	04
Description Of The Max Qnty Code:	50-199
Applicable Unit Of Measure Code:	3
Description Of The Unit Of Measure:	CUBIC FEET
Storage Container:	
Type Code:	L
Description:	CYLINDER
Pressure of Hazardous Substance Code:	2
Pressure Description:	GREATER THAN NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE

VALLEY LANDFILLS INC (Continued) **1006859227**

Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1072
Chemical Abstract Service Identifier Number:	7782447
First Hazardous Classification Code For Chemical:	2.2
Hazard Classification 1 Of The Chemical:	NonFlammable Gases
Second Hazardous Classification Code For Chemical:	5.1
Hazard Classification 2 Of The Chemical:	Oxidizers
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Pure
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	OXYGEN
Contains 112R :	No
Contains EHS:	No
Contains 313:	No
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	562212
NAICS Desc 1:	SOLID WASTE LANDFILL
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	BRIAN STONE
Emergency Procedure: CASHIERS OFFICE	
Chemical Trade Name:	ANTIFREEZE
Manager Name:	Not reported
Mailing Address:	28972 COFFIN BUTTE RD CORVALLIS, OR 97330
Mailing County:	BENTON
Day Phone:	5417457144
Employee File #:	033888
No. of Employees:	8
Placard:	Yes
Business Type:	MUNICIPAL SOLID WASTE DISPOSAL
Sprinkler System:	No
Business Phone:	5417457144
Department Or Division Of Company:	COFFIN BUTTE LANDFILL
Facility Has Written Emergency Plan:	Yes
Company Name:	VALLEY LANDFILLS INC
Fire Dept Code:	0001
Physical State :	Not reported
Physical State Of The Substance:	LIQUID
Average Amount Possessed During The Year Code:	04
Description Of The Avg Qnty Code:	50-199
Maximum Amount Possessed During The Year Code:	04
Description Of The Max Qnty Code:	50-199
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	
Type Code:	D
Description:	STEEL DRUM
Pressure of Hazardous Substance Code:	1

VALLEY LANDFILLS INC (Continued) **1006859227**

Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	3082
Chemical Abstract Service Identifier Number:	107211
First Hazardous Classification Code For Chemical:	6.3
Hazard Classification 1 Of The Chemical:	Acute Health Hazard
Second Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 2 Of The Chemical:	Not reported
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Mixture
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	ETHYLENE GLYCOL
Contains 112R :	No
Contains EHS:	No
Contains 313:	Yes
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	562212
NAICS Desc 1:	SOLID WASTE LANDFILL
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	BRIAN STONE
Emergency Procedure: CASHIERS OFFICE	
Chemical Trade Name:	CHEVRON OILS FLUIDS (VARIOUS)
Manager Name:	Not reported
Mailing Address:	28972 COFFIN BUTTE RD CORVALLIS, OR 97330
Mailing County:	BENTON
Day Phone:	5417457144
Employee File #:	033888
No. of Employees:	8
Placard:	Yes
Business Type:	MUNICIPAL SOLID WASTE DISPOSAL
Sprinkler System:	No
Business Phone:	5417457144
Department Or Division Of Company:	COFFIN BUTTE LANDFILL
Facility Has Written Emergency Plan:	Yes
Company Name:	VALLEY LANDFILLS INC
Fire Dept Code:	0001
Physical State :	Not reported
Physical State Of The Substance:	LIQUID
Average Amount Possessed During The Year Code:	04
Description Of The Avg Qnty Code:	50-199
Maximum Amount Possessed During The Year Code:	04
Description Of The Max Qnty Code:	50-199
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	

VALLEY LANDFILLS INC (Continued) **1006859227**

Type Code:	D
Description:	STEEL DRUM
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	Not reported
Chemical Abstract Service Identifier Number:	Not reported
First Hazardous Classification Code For Chemical:	4.5
Hazard Classification 1 Of The Chemical:	Combustible Materials
Second Hazardous Classification Code For Chemical:	6.3
Hazard Classification 2 Of The Chemical:	Acute Health Hazard
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Mixture
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	Not reported
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	PETROLEUM HYDROCARBONS
Contains 112R :	Not reported
Contains EHS:	Not reported
Contains 313:	Not reported
Fertilizer:	Not reported
Pesticide:	Not reported
NAICS Code 1:	562212
NAICS Desc 1:	SOLID WASTE LANDFILL
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	BRIAN STONE
Emergency Procedure: CASHIERS OFFICE	
Chemical Trade Name:	GASOLINE
Manager Name:	Not reported
Mailing Address:	28972 COFFIN BUTTE RD CORVALLIS, OR 97330
Mailing County:	BENTON
Day Phone:	5417457144
Employee File #:	033888
No. of Employees:	8
Placard:	Yes
Business Type:	MUNICIPAL SOLID WASTE DISPOSAL
Sprinkler System:	No
Business Phone:	5417457144
Department Or Division Of Company:	COFFIN BUTTE LANDFILL
Facility Has Written Emergency Plan:	Yes
Company Name:	VALLEY LANDFILLS INC
Fire Dept Code:	0001
Physical State :	Not reported
Physical State Of The Substance:	LIQUID
Average Amount Possessed During The Year Code:	10
Description Of The Avg Qnty Code:	200-499
Maximum Amount Possessed During The Year Code:	10
Description Of The Max Qnty Code:	200-499

VALLEY LANDFILLS INC (Continued) **1006859227**

Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	
Type Code:	A
Description:	ABOVEGROUND TANK
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1203
Chemical Abstract Service Identifier Number:	8006619
First Hazardous Classification Code For Chemical:	3.1
Hazard Classification 1 Of The Chemical:	Flammable Liq.(FP<0F)
Second Hazardous Classification Code For Chemical:	6.3
Hazard Classification 2 Of The Chemical:	Acute Health Hazard
Third Hazardous Classification Code For Chemical:	6.4
Hazard Classification 3 Of The Chemical:	Chronic Health Hazard
Is Substance Pure Or Mixture:	Pure
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	PETROLEUM DISTILLATES
Contains 112R :	No
Contains EHS:	No
Contains 313:	Yes
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	562212
NAICS Desc 1:	SOLID WASTE LANDFILL
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported

Click this hyperlink while viewing on your computer to access
1 additional OR HSIS record(s) in the EDR Site Report.

AST:

Employer File Number:	033888
Hazardous Substance:	GASOLINE
Reporting Quantities:	200-499
Quantity Units:	GALLONS
Physical State:	LIQUID
Storage 1:	ABOVEGROUND TANK

Employer File Number:	033888
Hazardous Substance:	DIESEL FUEL
Reporting Quantities:	10,000-49,999
Quantity Units:	GALLONS
Physical State:	LIQUID
Storage 1:	ABOVEGROUND TANK

C10
ESE
1/2-1
3666 ft.

Relative:
Lower

Actual:
229 ft.

OR SPILLS **S102080967**
N/A

1 MI E OF HWY 99 ON CAMP ADAIR RD
CAMP ADAIR, OR

Site 2 of 2 in cluster C

OR SPILLS:

Facility ID:	94-0634	Spill Date:	04-27-1994
Material:	ASBESTOS INSUL	Quantity:	2.5 CU FT
Release Date:	/ /	Year:	Not reported
How Occurred:	FELL ONTO RD DURING TRANS TO DUMP		Not reported
Source:	Not reported	Media	Not reported
Materials:	Not reported		
Location:	Not reported		
Description:	Not reported		
Responsible Company:	DEAN SPADY		
Responsible Content:	Not reported		
Description :	Not reported		

D11
WSW
1/2-1
3699 ft.

Relative:
Lower

Actual:
254 ft.

COFFIN BUTTE REGIONAL LANDFILL **SHWS - ECSI** **1006864160**
CAMP ADAIR RD **FINDS** **110014269736**
CORVALLIS, OR 97339 **Brownfields**

Site 1 of 4 in cluster D

FINDS:
Other Pertinent Environmental Activity Identified at Site:
OREGON-DEPARTMENT OF ENVIRONMENTAL QUALITY

ECSI:

State ID Number:	832	Brown ID	0
Study Area:	False		
Cerclis ID:	990751950	Tax Lots:	Not reported
Size:	100 acres	NPL:	False
Orphan:	False	Region ID:	3
Lat/Long:	44.68610 / -123.216	Tax Lots:	Not reported
Township Coord.:	10	Township Zone:	S
Range Coord.:	4	Range Zone:	W
Section Coord.:	19	Qtr Section:	Not reported
Legislative :	19	Further Action:	258
FACA ID :	9062	Score Value:	0
Update Date :	2004-09-17 15:12:08.	Created Date:	CONV
Created Time :	/ /		
Updated By :	WMASON		

HAZ RELEASED:

Quant. Released:	Not reported
Date:	Not reported
Update Date:	Not reported
Update By:	Not reported
Substance ID :	Not reported
Code :	Not reported
Substance Name :	Not reported
Substance Abbrev. :	Not reported
Substance Categ ID :	Not reported
Substance Sub Categ :	Not reported
Category Level :	Not reported
Created By :	Not reported
Create Date :	Not reported
Substance Alias ID :	Not reported
Sub Alias Name :	Not reported
Rel Comment ID :	Not reported

COFFIN BUTTE REGIONAL LANDFILL (Continued) **1006864160**

Release Code :	Not reported
Release Comments :	Not reported
Sampling Result ID :	Not reported
Feature Id :	Not reported
Hazard Release Id :	Not reported
Medium Code Id :	Not reported
Substance Id :	Not reported
Unit Code :	Not reported
Observation :	Not reported
Owner Operator :	Not reported
Lab Data :	Not reported
Sample Depth :	Not reported
Start Date :	Not reported
End Date :	Not reported
Minimum Concentration :	Not reported
Max Concentration :	Not reported
Last Update By :	Not reported
Last Updated On :	Not reported
Sample Comment :	Not reported

Alias Name: Not reported
Investigation Status: 208

NARR:
NARR ID: 5727156
NARR Code : Site Contacts
Created By: Not reported
Create Date: 2002-12-17 08:50:04.
Updated By: Not reported
Updated Date: 2002-12-17 08:50:04.
NARR Comments Valley Landfills, Inc., P.O. Box 807, Corvallis, OR, 97339. Waste Control System, 744 NW 4th Street, Corvallis, OR, 97330. Camp Adair, Camp Adair Road, Corvallis, OR.
(1/23/95 ACV/SAS) Valley Landfills, a subsidiary of Waste Control Systems, purchased the landfill in 1975 for use as a municipal landfill. In addition to municipal wastes, the landfill received low level radioactive wastes and industrial debris from
Teledyne Wah Chang. For the first few years after 1975, zirconium nodule fines from Teledyne were mixed in with the municipal wastes. Because the fines were pyrophoric, the practice was discontinued. Teledyne's wastes are now segregated from the mun
icipal wastes in clay cells. (See ECSI #315 for more information on Teledyne Wah Chang). Leachate was collected in a large pond at the eastern toe of the landfill. (9/04 WRM) Currently, groundwater contamination is confined to VLI property, and conc
entrations have been decreasing over time in response to site engineering controls.
EPA CERCLA Preliminary Assessment & Site Investigation reports.
municipal and industrial wastes, radium, magnesium, zirconium, asbestos, VOCs
Off Highway 99W, 10 miles north of Corvallis.
Landfilling of wastes; leachate generation. Time of release: 1940s to present.
(9/04 WRM) Valley Landfills, Inc. has worked with DEQ over the past year to complete the remedial investigation/feasibility study at the site that was begun under DEQ's Solid Waste Program. The recent work consisted primarily of an ecological assess
ment, and an evaluation of potential remedial action alternatives to supplement the actions already taken at the site. Based on current conditions and the findings to date, DEQ is proposing a remedy consisting of: 1) existing

COFFIN BUTTE REGIONAL LANDFILL (Continued) **1006864160**

engineering controls in
cluding landfill capping, surface-water controls, leachate collection, and landfill gas collection; 2) land use restrictions to prohibit residential uses and groundwater uses on the landfill property; and 3) decommissioning two sitewater supply well
s. In addition, DEQ is proposing to set concentration limits that will be added to the site s Solid Waste Disposal Permit. The limits will be used to gauge the progress the controls are having on groundwater contamination, and to decide whether addi
tional engineering and/or institutional controls might be needed to protect human health and the environment.
Landfilling at Coffin Butte first began in the 1940s by the Army as a part of waste disposal for the former Camp Adair. (See ECSI #1044 for more information on Camp Adair). In 1975, Valley Landfills, Inc. (VLI) purchased the site and currently opera
tes it as a municipal solid waste facility.
The Coffin Butte Regional Landfill is a municipal solid waste facility. The site consists of several disposal cells, including an old closed cell ("Closed Landfill, 1977"), Cells 1 and 1A, and Cells 2 A-D.
Groundwater
Groundwater is contaminated with low levels of volatile organic chemicals and inorganic compounds. Groundwater contamination is confined within the property boundaries, and so does not currently pose a threat to human health or the environment.

NARR ID: 5727157
NARR Code : Contamination
Created By: Not reported
Create Date: 2002-12-17 08:50:04.
Updated By: WMASON
Updated Date: 2004-09-17 15:06:05.
NARR ID: 5727158
NARR Code : Data Sources
Created By: Not reported
Create Date: 2002-12-17 08:50:04.
Updated By: Not reported
Updated Date: 2002-12-17 08:50:04.
NARR ID: 5745473
NARR Code : General Site Description
Created By: WMASON
Create Date: 2004-09-17 14:59:39.
Updated By: WMASON
Updated Date: 2004-09-17 14:59:39.
NARR ID: 5727159
NARR Code : Hazardous Substance/Waste Types
Created By: Not reported
Create Date: 2002-12-17 08:50:04.
Updated By: MENGLIS
Updated Date: 2003-10-06 09:59:25.
NARR ID: 5727160
NARR Code : Site Location
Created By: Not reported
Create Date: 2002-12-17 08:50:04.
Updated By: Not reported
Updated Date: 2002-12-17 08:50:04.
NARR ID: 5727161
NARR Code : Manner of Release
Created By: Not reported

COFFIN BUTTE REGIONAL LANDFILL (Continued) **1006864160**

Create Date: 2002-12-17 08:50:04.
Updated By: Not reported
Updated Date: 2002-12-17 08:50:04.
NARR ID: 5745474
NARR Code : Pathways Other Hazards
Created By: WMASON
Create Date: 2004-09-17 15:10:40.
Updated By: WMASON
Updated Date: 2004-09-17 15:12:01.
NARR ID: 5745471
NARR Code : Remedial Action
Created By: WMASON
Create Date: 2004-09-17 14:46:34.
Updated By: WMASON
Updated Date: 2004-09-17 15:08:44.
NARR ID: 5745475
NARR Code : Health Threats
Created By: WMASON
Create Date: 2004-09-17 15:11:32.
Updated By: WMASON
Updated Date: 2004-09-17 15:11:32.
NARR ID: 5745472
NARR Code : Site History
Created By: WMASON
Create Date: 2004-09-17 14:49:51.
Updated By: WMASON
Updated Date: 2004-09-17 14:51:41.

ECWQ:
Owner Site Num: 132133 FACA Id : 9062
Site Name: Coffin Butte Regional Landfill
County Code : 2.00
Owner Name: Coffin Butte Regional Landfill
Owner Address: 28972 Coffin Butte Road
Corvallis, 97339
Lat/Long 44.6861 / -123.2166
Owner Code: SUS

PERMIT:
Permit Number: Not reported Permit Type: Not reported
Permit Agency: Not reported
Permit Comments: Not reported

ADMIN ACT:
Admin ID: 722959 Action ID: 9468
Agency ID : Environmantal Protection Agency Start Date: 1983-11-01 00:00:00
Further Action: Not reported Region ID: Not reported
Complete Date: 1984-09-28 00:00:00 Substance Code: Not reported
Rank Value: 0 Cleanup Flag: False
Updated By: CONV Update Date: 1994-09-13 00:00:00
Created By: Not reported Create Date: 2002-12-17 08:50:22.
Employee Id: Not reported
Comments : Not reported
Administrative Action: EPA PA1/SI1
Admin Action Category: Not reported
Admin Flag: True
Admin Action Code Flag: False
Admin Action : EPA PA1/SI1

COFFIN BUTTE REGIONAL LANDFILL (Continued) **1006864160**

Admin ID:	723033	Action ID:	9444
Agency ID :	Environmantal Protection Agency	Start Date:	1984-09-28 00:00:00
Further Action:	Not reported	Region ID:	Not reported
Complete Date:	1984-09-28 00:00:00	Substance Code:	Not reported
Rank Value:	0	Cleanup Flag:	False
Updated By:	CONV	Update Date:	1994-09-13 00:00:00
Created By:	Not reported	Create Date:	2002-12-17 08:50:22.
Employee Id:	Not reported		
Comments :	Not reported		

Administrative Action: No Further Remedial Action Planned under Federal program
Admin Action Category: Not reported
Admin Flag: True
Admin Action Code Flag: False
Admin Action : No Further Remedial Action Planned under Federal program

Admin ID:	727415	Action ID:	9484
Agency ID :	Dept Of Environmental Quality	Start Date:	2003-05-07 00:00:00
Further Action:	0	Region ID:	Western Region
Complete Date:	2004-07-29 00:00:00	Substance Code:	RES
Rank Value:	Not reported	Cleanup Flag:	False
Updated By:	WMASON	Update Date:	2004-09-17 15:01:56.
Created By:	MENGLIS	Create Date:	2003-10-06 09:58:31.
Employee Id:	510		
Comments :	Not reported		

Administrative Action: REMEDIAL INVESTIGATION
Admin Action Category: Not reported
Admin Flag: True
Admin Action Code Flag: False
Admin Action : REMEDIAL INVESTIGATION

Admin ID:	729028	Action ID:	9494
Agency ID :	Dept Of Environmental Quality	Start Date:	2004-07-30 00:00:00
Further Action:	0	Region ID:	Western Region
Complete Date:	Not reported	Substance Code:	RES
Rank Value:	Not reported	Cleanup Flag:	True
Updated By:	WMASON	Update Date:	2004-09-17 14:38:32.
Created By:	WMASON	Create Date:	2004-09-17 14:37:36.
Employee Id:	510		
Comments :	Not reported		

Administrative Action: RECORD OF DECISION
Admin Action Category: Not reported
Admin Flag: True
Admin Action Code Flag: False
Admin Action : RECORD OF DECISION

Admin ID:	729030	Action ID:	9429
Agency ID :	Dept Of Environmental Quality	Start Date:	2003-05-07 00:00:00
Further Action:	0	Region ID:	Western Region
Complete Date:	2004-07-29 00:00:00	Substance Code:	RES
Rank Value:	Not reported	Cleanup Flag:	False
Updated By:	WMASON	Update Date:	2004-09-17 15:03:15.
Created By:	WMASON	Create Date:	2004-09-17 15:02:39.
Employee Id:	510		
Comments :	Not reported		

Administrative Action: FEASIBILITY STUDY
Admin Action Category: Not reported

COFFIN BUTTE REGIONAL LANDFILL (Continued) **1006864160**

Admin Flag: True
Admin Action Code Flag: False
Admin Action : FEASIBILITY STUDY

Admin ID:	702070	Action ID:	9449
Agency ID :	Dept Of Environmental Quality	Start Date:	2001-06-05 00:00:00
Further Action:	Not reported	Region ID:	Western Region
Complete Date:	2001-06-05 00:00:00	Substance Code:	SAS
Rank Value:	0	Cleanup Flag:	False
Updated By:	mme	Update Date:	2001-07-30 00:00:00
Created By:	Not reported	Create Date:	2002-12-17 08:50:22.
Employee Id:	179		
Comments :	Not reported		

Administrative Action: Insufficient information to list
Admin Action Category: Not reported
Admin Flag: True
Admin Action Code Flag: False
Admin Action : Insufficient information to list

Admin ID:	711366	Action ID:	9426
Agency ID :	Environmantal Protection Agency	Start Date:	1997-01-06 00:00:00
Further Action:	Not reported	Region ID:	Western Region
Complete Date:	1997-01-06 00:00:00	Substance Code:	SAS
Rank Value:	0	Cleanup Flag:	False
Updated By:	slm	Update Date:	1997-01-07 00:00:00
Created By:	Not reported	Create Date:	2002-12-17 08:50:22.
Employee Id:	538		

Comments : FTA for EPA Site Inspection of Camp Adair Site, which included Coffin Butte Landfill. See also ECSI #941 and #1044.
Administrative Action: SITE PRIORITY EVALUATION FOR FURTHER ACTION
Admin Action Category: Not reported
Admin Flag: True
Admin Action Code Flag: False
Admin Action : SITE PRIORITY EVALUATION FOR FURTHER ACTION

Admin ID:	715960	Action ID:	9421
Agency ID :	Environmantal Protection Agency	Start Date:	1979-04-01 00:00:00
Further Action:	Not reported	Region ID:	Not reported
Complete Date:	Not reported	Substance Code:	Not reported
Rank Value:	0	Cleanup Flag:	False
Updated By:	dmc	Update Date:	1995-09-12 00:00:00
Created By:	Not reported	Create Date:	2002-12-17 08:50:22.
Employee Id:	Not reported		
Comments :	Not reported		

Administrative Action: Site added to CERCLIS
Admin Action Category: Not reported
Admin Flag: True
Admin Action Code Flag: False
Admin Action : Site added to CERCLIS

Admin ID:	715415	Action ID:	9459
Agency ID :	Dept Of Environmental Quality	Start Date:	1995-01-23 00:00:00
Further Action:	Not reported	Region ID:	Western Region
Complete Date:	1995-01-23 00:00:00	Substance Code:	SAS
Rank Value:	0	Cleanup Flag:	False
Updated By:	dmc	Update Date:	1995-08-02 00:00:00
Created By:	Not reported	Create Date:	2002-12-17 08:50:22.

COFFIN BUTTE REGIONAL LANDFILL (Continued) **1006864160**

Employee Id: 738
Comments : Not reported
Administrative Action: PRELIMINARY ASSESSMENT EQUIVALENT
Admin Action Category: Not reported
Admin Flag: True
Admin Action Code Flag: False
Admin Action : PRELIMINARY ASSESSMENT EQUIVALENT

Admin ID:	715416	Action ID:	9510
Agency ID :	Dept Of Environmental Quality	Start Date:	1995-01-23 00:00:00
Further Action:	Medium	Region ID:	Western Region
Complete Date:	1995-01-23 00:00:00	Substance Code:	SAS
Rank Value:	0	Cleanup Flag:	False
Updated By:	gmw	Update Date:	2001-07-09 00:00:00
Created By:	Not reported	Create Date:	2002-12-17 08:50:22.

Employee Id: 738
Comments : Not reported
Administrative Action: State Expanded Preliminary Assessment recommended (XPA)
Admin Action Category: Not reported
Admin Flag: True
Admin Action Code Flag: False
Admin Action : State Expanded Preliminary Assessment recommended (XPA)

Admin ID:	717993	Action ID:	9424
Agency ID :	Dept Of Environmental Quality	Start Date:	1988-04-28 00:00:00
Further Action:	Not reported	Region ID:	Headquarters
Complete Date:	Not reported	Substance Code:	SAS
Rank Value:	0	Cleanup Flag:	False
Updated By:	kpd	Update Date:	1996-07-24 00:00:00
Created By:	Not reported	Create Date:	2002-12-17 08:50:22.

Employee Id: 304
Comments : Not reported
Administrative Action: Site added to database
Admin Action Category: Not reported
Admin Flag: True
Admin Action Code Flag: False
Admin Action : Site added to database

Admin ID:	718785	Action ID:	9425
Agency ID :	Dept Of Environmental Quality	Start Date:	1989-12-11 00:00:00
Further Action:	Not reported	Region ID:	Headquarters
Complete Date:	1989-12-11 00:00:00	Substance Code:	SAS
Rank Value:	0	Cleanup Flag:	False
Updated By:	kpd	Update Date:	1996-07-24 00:00:00
Created By:	Not reported	Create Date:	2002-12-17 08:50:22.

Employee Id: 466
Comments : Not reported
Administrative Action: SITE EVALUATION
Admin Action Category: Not reported
Admin Flag: True
Admin Action Code Flag: False
Admin Action : SITE EVALUATION

Admin ID:	718786	Action ID:	9437
Agency ID :	Dept Of Environmental Quality	Start Date:	1989-12-12 00:00:00
Further Action:	Not reported	Region ID:	Headquarters
Complete Date:	1989-12-12 00:00:00	Substance Code:	SAS

COFFIN BUTTE REGIONAL LANDFILL (Continued) **1006864160**

Rank Value:	0	Cleanup Flag:	False
Updated By:	kpd	Update Date:	1996-07-24 00:00:00
Created By:	Not reported	Create Date:	2002-12-17 08:50:22.
Employee Id:	466		
Comments :	Not reported		
Administrative Action:	Listing Review completed		
Admin Action Category:	Not reported		
Admin Flag:	True		
Admin Action Code Flag:	False		
Admin Action :	Listing Review completed		

Admin ID:	718787	Action ID:	9449
Agency ID :	Dept Of Environmental Quality	Start Date:	1989-12-13 00:00:00
Further Action:	Not reported	Region ID:	Headquarters
Complete Date:	1995-01-23 00:00:00	Substance Code:	SAS
Rank Value:	0	Cleanup Flag:	False
Updated By:	kpd	Update Date:	1996-07-24 00:00:00
Created By:	Not reported	Create Date:	2002-12-17 08:50:22.
Employee Id:	466		
Comments :	Not reported		
Administrative Action:	Insufficient information to list		
Admin Action Category:	Not reported		
Admin Flag:	True		
Admin Action Code Flag:	False		
Admin Action :	Insufficient information to list		

Admin ID:	718788	Action ID:	9496
Agency ID :	Dept Of Environmental Quality	Start Date:	1989-12-14 00:00:00
Further Action:	Not reported	Region ID:	Headquarters
Complete Date:	1989-12-14 00:00:00	Substance Code:	SAS
Rank Value:	0	Cleanup Flag:	False
Updated By:	kpd	Update Date:	1996-07-24 00:00:00
Created By:	Not reported	Create Date:	2002-12-17 08:50:22.
Employee Id:	466		
Comments :	Not reported		
Administrative Action:	State Basic Preliminary Assessment recommended (PA)		
Admin Action Category:	Not reported		
Admin Flag:	True		
Admin Action Code Flag:	False		
Admin Action :	State Basic Preliminary Assessment recommended (PA)		

DISPOSAL:

Disposal ID:	Not reported	Feature ID:	Not reported
Medium :	Not reported		
Treatment :	Not reported		
Disposal Method:	Not reported		
Start Date:	Not reported	End Date:	Not reported
Disposal Flag:	Not reported	Disposal Qty:	Not reported
Unit Code:	Not reported		
Depth :	Not reported		
Monitor :	Not reported		
Manifest Num :	Not reported		
Removed By :	Not reported		
Loc Comments:	Not reported		
Disposal Sub ID:	Not reported		
Substance ID:	Not reported		
Created By:	Not reported		
Create Date:	Not reported		

FEATURE:

COFFIN BUTTE REGIONAL LANDFILL (Continued) **1006864160**

Feature Id : Not reported
Site Id : Not reported
Feature Code : Not reported
Relative Position : Not reported
Hazard Rel Id : Not reported
Region Code : Not reported
Lat Long Method : Not reported
Lat Long Source : Not reported
County Code : Not reported
Refrence Id : Not reported
Twnshp Coord : Not reported
Township Zone : Not reported
Range Coord : Not reported
Range Zone : Not reported
Section Coord : Not reported
Qtr Section Coord : Not reported
Address : Not reported
Not reported
Zip Plus : Not reported
Lat/Long : Not reported
Lat/Lon Decimal : Not reported
Feature Size : Not reported
Est Accuracy : Not reported
Created On Date : Not reported
Created By Prgm : Not reported
Last Updated By : Not reported
Last Updated On : Not reported
Comment : Not reported

WELL:
Well ID: Not reported
Water Resource Code: Not reported
Effective Date: Not reported
Aquifer Code: Not reported
Ground Station Key: Not reported

OPERATIONS:
Operation Id : 132133
Operation Status : Active
Common Name : Coffin Butte Regional Landfill
Yrs of Operation : mid 1940 to 1975 as open dump; 1975+ RCRA landfill
Comments : mid 1940 to 1975 as open dump; 1975+ RCRA landfill
Updated By : jxh
Updated Date : 1995-03-20 00:00:00

Process Code ID: Not reported
Years Of Process: Not reported
Created By: Not reported
Created Date: Not reported

Operations SIC Id: 195017
SIC Code: 4953
Created By: Not reported
Created Date: 2002-12-17 08:50:34.

OR BROWNFIELD:
Facility Region: WESTERN REGION
Manager: Bill Mason

D12 WSW 1/2-1 3702 ft. — **COFFIN BUTTE** — **FINDS** — **1006839899**
28972 COFFIN BUTTE ROAD — **110014009633**
CORVALLIS, OR 97330

Site 2 of 4 in cluster D

Relative: Lower
Actual: 254 ft.

FINDS:
Other Pertinent Environmental Activity Identified at Site:
NATIONAL EMISSIONS INVENTORY

D13 WSW 1/2-1 3702 ft. — **VALLEY LANDFILLS INC** — **FINDS** — **1004580214**
28972 COFFIN BUTTE RD — **110006661996**
CORVALLIS, OR 97330

Site 3 of 4 in cluster D

Relative: Lower
Actual: 254 ft.

FINDS:
Other Pertinent Environmental Activity Identified at Site:
AEROMETRIC INFORMATION RETRIEVAL SYSTEM/AIRS FACILITY SYSTEM
OREGON-DEPARTMENT OF ENVIRONMENTAL QUALITY
PERMIT COMPLIANCE SYSTEM

D14 WSW 1/2-1 3702 ft. — **COFFIN BUTTE LANDFILL** — **SWF/LF** — **1002998504**
28972 COFFIN BUTTE RD — **N/A**
CORVALLIS, OR 97330

Site 4 of 4 in cluster D

Relative: Lower
Actual: 254 ft.

LF:

Facility Id:	104176
Permit Number:	306
Facility Phone:	(541) 745-2018
Facility Phone 2:	Not reported
Contact Name:	Not reported
Lat/Long:	44.699199999999 / -123.2235
Mailing Address:	28972 Coffin Butte Rd Corvallis, OR 97330
Facility Addr 2:	Not reported
Permit Status:	Active
Solid Waste:	
Type:	Landfill (Regional)
Closed:	Not reported
Date Opened:	1978-03-16

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15 ESE > 1 5933 ft. — **ODFW** — **HSIS AST** — **S103419424**
29555 CAMP ADAIR RD — **N/A**
MONMOUTH, OR 97361

Relative: Lower
Actual: 225 ft.

HSIS:

Emergency Contact:	RAY FIORI
Emergency Procedure:	IN HQ OFFICE BLDG ATTACHED TO S SIDE OF YELLOW FILE CABINET
Chemical Trade Name:	PROPANE
Manager Name:	RAY FIORI
Mailing Address:	29555 CAMP ADAIR RD MONMOUTH, OR 97361
Mailing County:	BENTON
Day Phone:	5417455334
Employee File #:	005801
No. of Employees:	1

ODFW (Continued) **S103419424**

Placard:	No
Business Type:	WILDLIFE AREA & GAME BIRD PROPAGATION
Sprinkler System:	No
Business Phone:	5417455334
Department Or Division Of Company:	E E WILSON WILDLIFE AREA
Facility Has Written Emergency Plan:	Yes
Company Name:	ODFW
Fire Dept Code:	0001
Physical State :	Not reported
Physical State Of The Substance:	GAS
Average Amount Possessed During The Year Code:	10
Description Of The Avg Qnty Code:	200-499
Maximum Amount Possessed During The Year Code:	11
Description Of The Max Qnty Code:	500-999
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	
Type Code:	A
Description:	ABOVEGROUND TANK
Pressure of Hazardous Substance Code:	2
Pressure Description:	GREATER THAN NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1075
Chemical Abstract Service Identifier Number:	74986
First Hazardous Classification Code For Chemical:	2.1
Hazard Classification 1 Of The Chemical:	Flammable Gases
Second Hazardous Classification Code For Chemical:	6.3
Hazard Classification 2 Of The Chemical:	Acute Health Hazard
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Pure
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	PROPANE
Contains 112R :	No
Contains EHS:	No
Contains 313:	No
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	921190
NAICS Desc 1:	OTHER GENERAL GOV SUPPORT
NAICS Code 2:	112511
NAICS Desc 2:	FINFISH FRMG & FISH HATCHERIES
Emergency Contact:	RAY FIORI
Emergency Procedure:	IN HQ OFFICE BLDG ATTACHED TO S SIDE OF YELLOW FILE CABINET
Chemical Trade Name:	GASOLINE
Manager Name:	RAY FIORI
Mailing Address:	29555 CAMP ADAIR RD MONMOUTH, OR 97361
Mailing County:	BENTON

ODFW (Continued) **S103419424**

Day Phone:	5417455334
Employee File #:	005801
No. of Employees:	1
Placard:	No
Business Type:	WILDLIFE AREA & GAME BIRD PROPAGATION
Sprinkler System:	No
Business Phone:	5417455334
Department Or Division Of Company:	E E WILSON WILDLIFE AREA
Facility Has Written Emergency Plan:	Yes
Company Name:	ODFW
Fire Dept Code:	0001
Physical State :	Not reported
Physical State Of The Substance:	LIQUID
Average Amount Possessed During The Year Code:	04
Description Of The Avg Qnty Code:	50-199
Maximum Amount Possessed During The Year Code:	04
Description Of The Max Qnty Code:	50-199
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	
Type Code:	A
Description:	ABOVEGROUND TANK
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	180
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1203
Chemical Abstract Service Identifier Number:	8006619
First Hazardous Classification Code For Chemical:	3.1
Hazard Classification 1 Of The Chemical:	Flammable Liq.(FP<0F)
Second Hazardous Classification Code For Chemical:	6.3
Hazard Classification 2 Of The Chemical:	Acute Health Hazard
Third Hazardous Classification Code For Chemical:	6.4
Hazard Classification 3 Of The Chemical:	Chronic Health Hazard
Is Substance Pure Or Mixture:	Mixture
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	PETROLEUM DISTILLATES
Contains 112R :	No
Contains EHS:	No
Contains 313:	Yes
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	921190
NAICS Desc 1:	OTHER GENERAL GOV SUPPORT
NAICS Code 2:	112511
NAICS Desc 2:	FINFISH FRMG & FISH HATCHERIES
Emergency Contact:	RAY FIORI
Emergency Procedure:	IN HQ OFFICE BLDG ATTACHED TO S SIDE OF YELLOW FILE CABINET
Chemical Trade Name:	DIESEL FUEL
Manager Name:	RAY FIORI

ODFW (Continued) **S103419424**

Mailing Address:	29555 CAMP ADAIR RD MONMOUTH, OR 97361
Mailing County:	BENTON
Day Phone:	5417455334
Employee File #:	005801
No. of Employees:	1
Placard:	No
Business Type:	WILDLIFE AREA & GAME BIRD PROPAGATION
Sprinkler System:	No
Business Phone:	5417455334
Department Or Division Of Company:	E E WILSON WILDLIFE AREA
Facility Has Written Emergency Plan:	Yes
Company Name:	ODFW
Fire Dept Code:	0001
Physical State :	Not reported
Physical State Of The Substance:	LIQUID
Average Amount Possessed During The Year Code:	10
Description Of The Avg Qnty Code:	200-499
Maximum Amount Possessed During The Year Code:	10
Description Of The Max Qnty Code:	200-499
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	
Type Code:	A
Description:	ABOVEGROUND TANK
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1993
Chemical Abstract Service Identifier Number:	68334305
First Hazardous Classification Code For Chemical:	3.3
Hazard Classification 1 Of The Chemical:	Flammable Liq. (73F<FP<141F)
Second Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 2 Of The Chemical:	Not reported
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Mixture
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	PETROLEUM MID-DISTILLATES
Contains 112R :	No
Contains EHS:	No
Contains 313:	No
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	921190
NAICS Desc 1:	OTHER GENERAL GOV SUPPORT
NAICS Code 2:	112511
NAICS Desc 2:	FINFISH FRMG & FISH HATCHERIES
Emergency Contact:	RAY FIORI

ODFW (Continued) **S103419424**

Emergency Procedure:	IN HQ OFFICE BLDG ATTACHED TO S SIDE OF YELLOW FILE CABINET
Chemical Trade Name:	POTASSIUM PERMANGANATE
Manager Name:	RAY FIORI
Mailing Address:	29555 CAMP ADAIR RD MONMOUTH, OR 97361
Mailing County:	BENTON
Day Phone:	5417455334
Employee File #:	005801
No. of Employees:	1
Placard:	No
Business Type:	WILDLIFE AREA & GAME BIRD PROPAGATION
Sprinkler System:	No
Business Phone:	5417455334
Department Or Division Of Company:	E E WILSON WILDLIFE AREA
Facility Has Written Emergency Plan:	Yes
Company Name:	ODFW
Fire Dept Code:	0001
Physical State :	Not reported
Physical State Of The Substance:	SOLID
Average Amount Possessed During The Year Code:	11
Description Of The Avg Qnty Code:	500-999
Maximum Amount Possessed During The Year Code:	11
Description Of The Max Qnty Code:	500-999
Applicable Unit Of Measure Code:	1
Description Of The Unit Of Measure:	POUNDS
Storage Container:	
Type Code:	D
Description:	STEEL DRUM
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1490
Chemical Abstract Service Identifier Number:	7722647
First Hazardous Classification Code For Chemical:	5.1
Hazard Classification 1 Of The Chemical:	Oxidizers
Second Hazardous Classification Code For Chemical:	8.0
Hazard Classification 2 Of The Chemical:	Corrosives
Third Hazardous Classification Code For Chemical:	6.3
Hazard Classification 3 Of The Chemical:	Acute Health Hazard
Is Substance Pure Or Mixture:	Pure
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	POTASSIUM PERMANGANATE
Contains 112R :	No
Contains EHS:	No
Contains 313:	No
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	921190
NAICS Desc 1:	OTHER GENERAL GOV SUPPORT
NAICS Code 2:	112511

ODFW (Continued) **S103419424**

NAICS Desc 2:	FINFISH FRMG & FISH HATCHERIES
Emergency Contact:	RAY FIORI
Emergency Procedure:	IN HQ OFFICE BLDG ATTACHED TO S SIDE OF YELLOW FILE CABINET
Chemical Trade Name:	PRO-NOXFISH
Manager Name:	RAY FIORI
Mailing Address:	29555 CAMP ADAIR RD MONMOUTH, OR 97361
Mailing County:	BENTON
Day Phone:	5417455334
Employee File #:	005801
No. of Employees:	1
Placard:	No
Business Type:	WILDLIFE AREA & GAME BIRD PROPAGATION
Sprinkler System:	No
Business Phone:	5417455334
Department Or Division Of Company:	E E WILSON WILDLIFE AREA
Facility Has Written Emergency Plan:	Yes
Company Name:	ODFW
Fire Dept Code:	0001
Physical State :	Not reported
Physical State Of The Substance:	SOLID
Average Amount Possessed During The Year Code:	30
Description Of The Avg Qnty Code:	10,000-49,999
Maximum Amount Possessed During The Year Code:	30
Description Of The Max Qnty Code:	10,000-49,999
Applicable Unit Of Measure Code:	1
Description Of The Unit Of Measure:	POUNDS
Storage Container:	
Type Code:	I
Description:	FIBER DRUM
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	2588
Chemical Abstract Service Identifier Number:	83794
First Hazardous Classification Code For Chemical:	6.5
Hazard Classification 1 Of The Chemical:	Pesticide
Second Hazardous Classification Code For Chemical:	6.4
Hazard Classification 2 Of The Chemical:	Chronic Health Hazard
Third Hazardous Classification Code For Chemical:	6.1
Hazard Classification 3 Of The Chemical:	Poisonous Materials
Is Substance Pure Or Mixture:	Mixture
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	432-829
Most Hazardous Ingridient:	ROTENONE
Contains 112R :	No
Contains EHS:	No
Contains 313:	No
Fertilizer:	No
Pesticide:	Yes

ODFW (Continued) **S103419424**

NAICS Code 1: 921190
NAICS Desc 1: OTHER GENERAL GOV SUPPORT
NAICS Code 2: 112511
NAICS Desc 2: FINFISH FRMG & FISH HATCHERIES

Click this hyperlink while viewing on your computer to access
2 additional OR HSIS record(s) in the EDR Site Report.

AST:
Employer File Number: 005801
Hazardous Substance: PROPANE
Reporting Quantities: 500-999
Quantity Units: GALLONS
Physical State: GAS
Storage 1: ABOVEGROUND TANK

Employer File Number: 005801
Hazardous Substance: GASOLINE
Reporting Quantities: 50-199
Quantity Units: GALLONS
Physical State: LIQUID
Storage 1: ABOVEGROUND TANK

Employer File Number: 005801
Hazardous Substance: DIESEL FUEL
Reporting Quantities: 200-499
Quantity Units: GALLONS
Physical State: LIQUID
Storage 1: ABOVEGROUND TANK

E16
ESE
> 1
6604 ft.

Relative:
Lower

Actual:
227 ft.

E.E. WILSON WMA **FINDS** **1006863693**
29594 CAMP ADAIR ROAD **110014264740**
MONMOUTH, OR 97361

Site 1 of 2 in cluster E

FINDS:
Other Pertinent Environmental Activity Identified at Site:
OREGON-DEPARTMENT OF ENVIRONMENTAL QUALITY

E17
ESE
> 1
6604 ft.

Relative:
Lower

Actual:
227 ft.

E.E. WILSON WMA **LUST** **S100498730**
29594 CAMP ADAIR ROAD **N/A**
MONMOUTH, OR 97361

Site 2 of 2 in cluster E

LUST:
Facility ID: 27-91-4044
Region: Western Region
Cleanup Start: 8-Mar-92
Closed Date: 7-Mar-95
Cleanup Complete: 7-Mar-95

F18 **ORARNG** **HSIS** **S104332596**
NW **39432 RIFLE RANGE RD** **AST** **N/A**
> 1 **CORVALLIS, OR 97330**
8321 ft.

Site 1 of 2 in cluster F

Relative:
Lower

Actual:
222 ft.

HSIS:

Emergency Contact:	TERRY LARSON FACILITIES MGR
Emergency Procedure: SHOP OFFICE	
Chemical Trade Name:	CROSSBOW
Manager Name:	TERRY LARSON
Mailing Address:	PO BOX 14350 SALEM, OR 97309 - 5047
Mailing County:	MARION
Day Phone:	5417457408
Employee File #:	021555
No. of Employees:	2
Placard:	Yes
Business Type:	MILITARY TRAINING GROUND
Sprinkler System:	No
Business Phone:	5417457408
Department Or Division Of Company:	CAMP ADAIR RIFLE RANGE
Facility Has Written Emergency Plan:	Yes
Company Name:	ORARNG
Fire Dept Code:	0076
Physical State :	Not reported
Physical State Of The Substance:	LIQUID
Average Amount Possessed During The Year Code:	02
Description Of The Avg Qnty Code:	10-19
Maximum Amount Possessed During The Year Code:	02
Description Of The Max Qnty Code:	10-19
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	
Type Code:	N
Description:	PLASTIC BOTTLE, JUG, BUCKET
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	3082
Chemical Abstract Service Identifier Number:	1929733
First Hazardous Classification Code For Chemical:	4.5
Hazard Classification 1 Of The Chemical:	Combustible Materials
Second Hazardous Classification Code For Chemical:	6.5
Hazard Classification 2 Of The Chemical:	Pesticide
Third Hazardous Classification Code For Chemical:	6.3
Hazard Classification 3 Of The Chemical:	Acute Health Hazard
Is Substance Pure Or Mixture:	Pure
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	62719-260
Most Hazardous Ingridient:	2,4D DICHLOROPHENOXY ACETIC ACID
Contains 112R :	No
Contains EHS:	No

ORARNG (Continued) **S104332596**

Contains 313:	Yes
Fertilizer:	No
Pesticide:	Yes
NAICS Code 1:	928110
NAICS Desc 1:	NATIONAL SECURITY
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	TERRY LARSON FACILITIES MGR
Emergency Procedure: SHOP OFFICE	
Chemical Trade Name:	ROUNDUP ULTRAMAX RT
Manager Name:	TERRY LARSON
Mailing Address:	PO BOX 14350
	SALEM, OR 97309 - 5047
Mailing County:	MARION
Day Phone:	5417457408
Employee File #:	021555
No. of Employees:	2
Placard:	Yes
Business Type:	MILITARY TRAINING GROUND
Sprinkler System:	No
Business Phone:	5417457408
Department Or Division Of Company:	CAMP ADAIR RIFLE RANGE
Facility Has Written Emergency Plan:	Yes
Company Name:	ORARNG
Fire Dept Code:	0076
Physical State :	Not reported
Physical State Of The Substance:	LIQUID
Average Amount Possessed During The Year Code:	03
Description Of The Avg Qnty Code:	20-49
Maximum Amount Possessed During The Year Code:	03
Description Of The Max Qnty Code:	20-49
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	
Type Code:	N
Description:	PLASTIC BOTTLE, JUG, BUCKET
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	Not reported
Chemical Abstract Service Identifier Number:	38641940
First Hazardous Classification Code For Chemical:	6.3
Hazard Classification 1 Of The Chemical:	Acute Health Hazard
Second Hazardous Classification Code For Chemical:	6.5
Hazard Classification 2 Of The Chemical:	Pesticide
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Pure
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	524-512

ORARNG (Continued) **S104332596**

Most Hazardous Ingridient:	ISOPROPYLAMINE SALT OF GLYPHOSATE
Contains 112R :	No
Contains EHS:	No
Contains 313:	No
Fertilizer:	No
Pesticide:	Yes
NAICS Code 1:	928110
NAICS Desc 1:	NATIONAL SECURITY
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	TERRY LARSON FACILITIES MGR
Emergency Procedure: SHOP OFFICE	
Chemical Trade Name:	DIESEL
Manager Name:	TERRY LARSON
Mailing Address:	PO BOX 14350
	SALEM, OR 97309 - 5047
Mailing County:	MARION
Day Phone:	5417457408
Employee File #:	021555
No. of Employees:	2
Placard:	Yes
Business Type:	MILITARY TRAINING GROUND
Sprinkler System:	No
Business Phone:	5417457408
Department Or Division Of Company:	CAMP ADAIR RIFLE RANGE
Facility Has Written Emergency Plan:	Yes
Company Name:	ORARNG
Fire Dept Code:	0076
Physical State :	Not reported
Physical State Of The Substance:	LIQUID
Average Amount Possessed During The Year Code:	10
Description Of The Avg Qnty Code:	200-499
Maximum Amount Possessed During The Year Code:	10
Description Of The Max Qnty Code:	200-499
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	
Type Code:	A
Description:	ABOVEGROUND TANK
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Type of Code:	D
Description of Code:	STEEL DRUM
Pressure of Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Type of Code	Not reported
Description of Code:	Not reported
Pressure of Code:	Not reported
Pressure Description:	Not reported
Temperature of The Hazardous Substance Code:	Not reported
Temperature Description:	Not reported
Days The Hazardous Substance Is On Site During Year:	365

ORARNG (Continued) **S104332596**

Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1202
Chemical Abstract Service Identifier Number:	68476346
First Hazardous Classification Code For Chemical:	3.3
Hazard Classification 1 Of The Chemical:	Flammable Liq. (73F<FP<141F)
Second Hazardous Classification Code For Chemical:	6.3
Hazard Classification 2 Of The Chemical:	Acute Health Hazard
Third Hazardous Classification Code For Chemical:	6.4
Hazard Classification 3 Of The Chemical:	Chronic Health Hazard
Is Substance Pure Or Mixture:	Mixture
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	PETROLEUM DISTILLATES
Contains 112R :	No
Contains EHS:	No
Contains 313:	Yes
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	928110
NAICS Desc 1:	NATIONAL SECURITY
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported

AST:

Employer File Number:	021555
Hazardous Substance:	DIESEL
Reporting Quantities:	200-499
Quantity Units:	GALLONS
Physical State:	LIQUID
Storage 1:	ABOVEGROUND TANK
Storage 2:	STEEL DRUM

F19 **US ARMY NG CORVALLIS CAMP ADAIR** **SHWS - ECSI** **1006854204**
NW **39434 RIFLE RANGE RD** **FINDS** **110014164171**
> 1 **ADAIR VILLAGE, OR 97330**
8344 ft.

Site 2 of 2 in cluster F

Relative:
Lower

Actual:
222 ft.

FINDS:

Other Pertinent Environmental Activity Identified at Site:

OREGON-DEPARTMENT OF ENVIRONMENTAL QUALITY

ECSI:

State ID Number:	1736	Brown ID	0
Study Area:	False		
Cerclis ID:	1211841050	Tax Lots:	Not reported
Size:	Not reported	NPL:	False
Orphan:	False	Region ID:	3
Lat/Long:	44.71720 / -123.264	Tax Lots:	Not reported
Township Coord.:	10	Township Zone:	S
Range Coord.:	5	Range Zone:	W
Section Coord.:	11	Qtr Section:	Not reported
Legislative :	11	Further Action:	260
FACA ID :	40307	Score Value:	0
Update Date :	2004-06-21 15:45:33.	Created Date:	dmc
Created Time :	/ /		
Updated By :	GWISTAR		

US ARMY NG CORVALLIS CAMP ADAIR (Continued) **1006854204**

HAZ RELEASED:

Quant. Released:	Not reported
Date:	Not reported
Update Date:	Not reported
Update By:	Not reported
Substance ID :	Not reported
Code :	Not reported
Substance Name :	Not reported
Substance Abbrev. :	Not reported
Substance Categ ID :	Not reported
Substance Sub Categ :	Not reported
Category Level :	Not reported
Created By :	Not reported
Create Date :	Not reported
Substance Alias ID :	Not reported
Sub Alias Name :	Not reported
Rel Comment ID :	Not reported
Release Code :	Not reported
Release Comments :	Not reported
Sampling Result ID :	Not reported
Feature Id :	Not reported
Hazard Release Id :	Not reported
Medium Code Id :	Not reported
Substance Id :	Not reported
Unit Code :	Not reported
Observation :	Not reported
Owner Operator :	Not reported
Lab Data :	Not reported
Sample Depth :	Not reported
Start Date :	Not reported
End Date :	Not reported
Minimum Concentration :	Not reported
Max Concentration :	Not reported
Last Update By :	Not reported
Last Updated On :	Not reported
Sample Comment :	Not reported

Alias Name:	Not reported
Investigation Status:	208

NARR:

NARR ID:	5735287
NARR Code :	Remedial Action
Created By:	Not reported
Create Date:	2002-12-17 08:50:04.
Updated By:	Not reported
Updated Date:	2002-12-17 08:50:04.
NARR Comments	(9/12/95 DMC/SAS) Site added to CERCLIS on 1/11/95; federal facility.

ECWQ:

Owner Site Num:	Not reported	FACA Id :	40307
Site Name:	US Army NG Corvallis Camp Adair		
County Code :	2.00		
Owner Name:	Not reported		
Owner Address:	39434 Rifle Range RD Adair Village, 97330		
Lat/Long	44.7172 / -123.2641		
Owner Code:	SUS		

US ARMY NG CORVALLIS CAMP ADAIR (Continued) **1006854204**

PERMIT:

Permit Number:	Not reported	Permit Type:	Not reported
Permit Agency:	Not reported		
Permit Comments:	Not reported		

ADMIN ACT:

Admin ID:	715497	Action ID:	9424
Agency ID :	Dept Of Environmental Quality	Start Date:	1995-08-17 00:00:00
Further Action:	Not reported	Region ID:	Headquarters
Complete Date:	Not reported	Substance Code:	SAS
Rank Value:	0	Cleanup Flag:	False
Updated By:	dmc	Update Date:	1995-08-17 00:00:00
Created By:	Not reported	Create Date:	2002-12-17 08:50:22.
Employee Id:	293		
Comments :	CERCLIS discovery date 1/11/95.		
Administrative Action:	Site added to database		
Admin Action Category:	Not reported		
Admin Flag:	True		
Admin Action Code Flag:	False		
Admin Action :	Site added to database		

Admin ID:	715498	Action ID:	9508
Agency ID :	Dept Of Environmental Quality	Start Date:	1995-08-18 00:00:00
Further Action:	Low	Region ID:	Headquarters
Complete Date:	1995-08-18 00:00:00	Substance Code:	SAS
Rank Value:	0	Cleanup Flag:	False
Updated By:	GWISTAR	Update Date:	2004-06-21 15:44:45.
Created By:	Not reported	Create Date:	2002-12-17 08:50:22.
Employee Id:	632		
Comments :	See also ECSI #1044		
Administrative Action:	Site Screening recommended (EV)		
Admin Action Category:	Not reported		
Admin Flag:	True		
Admin Action Code Flag:	False		
Admin Action :	Site Screening recommended (EV)		

Admin ID:	715845	Action ID:	9421
Agency ID :	Environmantal Protection Agency	Start Date:	1995-01-11 00:00:00
Further Action:	Not reported	Region ID:	Not reported
Complete Date:	Not reported	Substance Code:	Not reported
Rank Value:	0	Cleanup Flag:	False
Updated By:	dmc	Update Date:	1995-09-12 00:00:00
Created By:	Not reported	Create Date:	2002-12-17 08:50:22.
Employee Id:	Not reported		
Comments :	Not reported		
Administrative Action:	Site added to CERCLIS		
Admin Action Category:	Not reported		
Admin Flag:	True		
Admin Action Code Flag:	False		
Admin Action :	Site added to CERCLIS		

DISPOSAL:

Disposal ID:	Not reported	Feature ID:	Not reported
Medium :	Not reported		
Treatment :	Not reported		
Disposal Method:	Not reported		
Start Date:	Not reported	End Date:	Not reported
Disposal Flag:	Not reported	Disposal Qty:	Not reported

US ARMY NG CORVALLIS CAMP ADAIR (Continued) **1006854204**

Unit Code: Not reported
Depth : Not reported
Monitor : Not reported
Manifest Num : Not reported
Removed By : Not reported
Loc Comments: Not reported
Disposal Sub ID: Not reported
Substance ID: Not reported
Created By: Not reported
Create Date: Not reported

FEATURE:
Feature Id : Not reported
Site Id : Not reported
Feature Code : Not reported
Relative Position : Not reported
Hazard Rel Id : Not reported
Region Code : Not reported
Lat Long Method : Not reported
Lat Long Source : Not reported
County Code : Not reported
Refrence Id : Not reported
Twnshp Coord : Not reported
Township Zone : Not reported
Range Coord : Not reported
Range Zone : Not reported
Section Coord : Not reported
Qtr Section Coord : Not reported
Address : Not reported
Not reported
Zip Plus : Not reported
Lat/Long : Not reported
Lat/Lon Decimal : Not reported
Feature Size : Not reported
Est Accuracy : Not reported
Created On Date : Not reported
Created By Prgm : Not reported
Last Updated By : Not reported
Last Updated On : Not reported
Comment : Not reported

WELL:
Well ID: Not reported
Water Resource Code: Not reported
Effective Date: Not reported
Aquifer Code: Not reported
Ground Station Key: Not reported

OPERATIONS:
Operation Id : Not reported
Operation Status :Not reported
Common Name : Not reported
Yrs of Operation : Not reported
Comments : Not reported
Updated By : Not reported
Updated Date : Not reported

Process Code ID: Not reported
Years Of Process:Not reported

US ARMY NG CORVALLIS CAMP ADAIR (Continued) **1006854204**

Created By: Not reported
Created Date: Not reported

Operations SIC Id: Not reported
SIC Code: Not reported
Created By: Not reported
Created Date: Not reported

G20 **FORMER CAMP ADAIR** **UST** **U000434348**
East **CAMP ADAIR** **N/A**
> 1 **ADAIR VILLAGE, OR 97330**
8494 ft.

Site 1 of 2 in cluster G

Relative:
Lower

Actual:
228 ft.

UST:

Facility ID:	8170
Facility Telephone:	(208) 326-6489
Permittee Name:	MICHAEL GROSS, ENVIRONMENTAL ENGINEER
Active Tanks:	Not reported
Decommissioned Tanks:	11
Number of Permitted Tanks:	Not reported
Number of Upgraded Tanks:	11

G21 **CAMP ADAIR-TANK SITE NO.2** **LUST** **S101210415**
East **CAMP ADAIR - AIR FORCE RADAR FACILI** **N/A**
> 1 **ADAIR VILLAGE, OR 97330**
8494 ft.

Site 2 of 2 in cluster G

Relative:
Lower

Actual:
228 ft.

LUST:

Facility ID:	02-94-4143
Region:	Western Region
Cleanup Start:	28-Sep-94
Closed Date:	Not reported
Cleanup Complete:	Not reported

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22 **BOISE CASCADE - CAMP ADAIR** **SHWS - ECSI** **S103841995**
East **CAMP ADAIR RD** **N/A**
> 1 **ADAIR VILLAGE, OR 97330**
10498 ft.

Relative:
Lower

Actual:
216 ft.

ECSI:

State ID Number:	941	Brown ID	0
Study Area:	False		
Cerclis ID:	Not reported	Tax Lots:	9-16-10-4-8-300, 9-16-10-4-8-4
Size:	123 acres	NPL:	False
Orphan:	False	Region ID:	3
Lat/Long:	44.70720 / -123.194	Tax Lots:	9-16-10-4-8-300, 9-16-10-4-8-4
Township Coord.:	10	Township Zone:	S
Range Coord.:	4	Range Zone:	W
Section Coord.:	17	Qtr Section:	Not reported
Legislative :	17	Further Action:	260
FACA ID :	4005	Score Value:	0
Update Date :	2003-12-16 16:09:18.	Created Date:	CONV
Created Time :	/ /		
Updated By :	GWISTAR		

HAZ RELEASED:
Quant. Released: Not reported

BOISE CASCADE - CAMP ADAIR (Continued) **S103841995**

Date:	Not reported
Update Date:	1989-03-10 00:00:00
Update By:	Not reported
Substance ID :	121839
Code :	87-86-5
Substance Name :	PENTACHLOROPHENOL
Substance Abbrev. :	Not reported
Substance Categ ID :	8495
Substance Sub Categ :	Semi-volatiles
Category Level :	Not reported
Created By :	Not reported
Create Date :	2002-12-17 08:50:34.
Substance Alias ID :	317688
Sub Alias Name :	CHLOROPHEN
Substance Alias ID :	317689
Sub Alias Name :	PCP
Substance Alias ID :	317690
Sub Alias Name :	PENCHLOROL
Substance Alias ID :	317691
Sub Alias Name :	PHENOL,PENTCHLORO-
Rel Comment ID :	304645
Release Code :	Data Sources
Release Comments :	Voluntary Preliminary Assessment, Lambier Stevenson Engineering, September 29, 1989.
Sampling Result ID :	346652
Feature Id :	Not reported
Hazard Release Id :	385459
Medium Code Id :	698
Substance Id :	Not reported
Unit Code :	Not reported
Observation :	False
Owner Operator :	False
Lab Data :	True
Sample Depth :	Not reported
Start Date :	Not reported
End Date :	Not reported
Minimum Concentration :	Not reported
Max Concentration :	Not reported
Last Update By :	CONV
Last Updated On :	1994-09-13 00:00:00
Sample Comment :	2.7 ppb
Sampling Result ID :	346653
Feature Id :	Not reported
Hazard Release Id :	385459
Medium Code Id :	703
Substance Id :	Not reported
Unit Code :	Not reported
Observation :	False
Owner Operator :	False
Lab Data :	True
Sample Depth :	Not reported
Start Date :	Not reported
End Date :	Not reported
Minimum Concentration :	Not reported
Max Concentration :	Not reported
Last Update By :	CONV
Last Updated On :	1994-09-13 00:00:00

BOISE CASCADE - CAMP ADAIR (Continued) **S103841995**

Sample Comment : 2.1 ppm

Alias Name: Not reported
Investigation Status: 208

NARR:
NARR ID: 5726054
NARR Code : Contamination
Created By: Not reported
Create Date: 2002-12-17 08:50:04.
Updated By: Not reported
Updated Date: 2002-12-17 08:50:04.
NARR Comments (3/15/91 MMD/VCS) Boise Cascade and Georgia-Pacific have joined to investigate and clean up contaminated portions of the property under a cost recovery letter agreement with ECD. Soils and groundwater in the former plywood mill area are contaminated
with low levels of pentachlorophenol. Contamination is suspected in the former Army fuel depot area. (See ECSI #1044 for more information).
1) September 1989 Lambier Stevenson Engineers "Voluntary Preliminary Assessment". 2) June 1990 Lambier Stevenson Engineers "Preliminary Assessment II". 3) June 1990 Lambier Stevenson Engineers "Preliminary Assessment III Workplan".
phenolic glue wastes, pentachlorophenol, petroleum products, caustics, paints, formaldehyde, PCBs
Approximately 10 miles NE of Corvallis
Past operating practices.
Pacific Paper Company Plywood Products, OWN, PRI, 1958-1960. United States Army, OWN, PRI, 1940-1958.
NARR ID: 5726055
NARR Code : Data Sources
Created By: Not reported
Create Date: 2002-12-17 08:50:04.
Updated By: Not reported
Updated Date: 2002-12-17 08:50:04.
NARR ID: 5726056
NARR Code : Hazardous Substance/Waste Types
Created By: Not reported
Create Date: 2002-12-17 08:50:04.
Updated By: Not reported
Updated Date: 2002-12-17 08:50:04.
NARR ID: 5726057
NARR Code : Site Location
Created By: Not reported
Create Date: 2002-12-17 08:50:04.
Updated By: Not reported
Updated Date: 2002-12-17 08:50:04.
NARR ID: 5726058
NARR Code : Manner of Release
Created By: Not reported
Create Date: 2002-12-17 08:50:04.
Updated By: Not reported
Updated Date: 2002-12-17 08:50:04.
NARR ID: 5726059
NARR Code : Site Ownership
Created By: Not reported
Create Date: 2002-12-17 08:50:04.
Updated By: Not reported
Updated Date: 2002-12-17 08:50:04.

ECWQ:

BOISE CASCADE - CAMP ADAIR (Continued) **S103841995**

Owner Site Num: 132240 FACA Id : 4005
Site Name: Boise Cascade - Camp Adair
County Code : 2.00
Owner Name: Boise Cascade - Camp Adair
Owner Address: Camp Adair RD
Adair Village, 97330
Lat/Long 44.7072 / -123.1949
Owner Code: SUS

PERMIT:
Permit Number: Not reported Permit Type: Not reported
Permit Agency: Not reported
Permit Comments: Not reported

ADMIN ACT:
Admin ID: 722724 Action ID: 9511
Agency ID : Dept Of Environmental Quality Start Date: 1991-03-15 00:00:00
Further Action: Not reported Region ID: Headquarters
Complete Date: 1991-03-15 00:00:00 Substance Code: VCS
Rank Value: 0 Cleanup Flag: False
Updated By: dmc Update Date: 1997-04-03 00:00:00
Created By: Not reported Create Date: 2002-12-17 08:50:22.
Employee Id: 304
Comments : Not reported
Administrative Action: SITE INVESTIGATION
Admin Action Category: Not reported
Admin Flag: True
Admin Action Code Flag: False
Admin Action : SITE INVESTIGATION

Admin ID: 727452 Action ID: 9518
Agency ID : Environmantal Protection Agency Start Date: 2003-05-15 00:00:00
Further Action: 0 Region ID: 0
Complete Date: Not reported Substance Code: Not reported
Rank Value: Not reported Cleanup Flag: False
Updated By: GWISTAR Update Date: 2003-11-20 13:17:06.
Created By: MENGLIS Create Date: 2003-10-15 14:16:44.
Employee Id: 0
Comments : EPA lead.
Administrative Action: TARGETED BROWNFIELD ASSESSMENT
Admin Action Category: Not reported
Admin Flag: True
Admin Action Code Flag: False
Admin Action : TARGETED BROWNFIELD ASSESSMENT

Admin ID: 727453 Action ID: 9502
Agency ID : Dept Of Environmental Quality Start Date: 2003-05-15 00:00:00
Further Action: Low Region ID: Western Region
Complete Date: 2003-05-15 17:01:21 Substance Code: SAS
Rank Value: Not reported Cleanup Flag: False
Updated By: GWISTAR Update Date: 2003-11-20 17:01:48.
Created By: MENGLIS Create Date: 2003-10-15 14:17:18.
Employee Id: 612
Comments : Not reported
Administrative Action: Remedial Investigation recommended (RI)
Admin Action Category: Not reported
Admin Flag: True
Admin Action Code Flag: False

BOISE CASCADE - CAMP ADAIR (Continued) **S103841995**

Admin Action : Remedial Investigation recommended (RI)

Admin ID:	724946	Action ID:	9456
Agency ID :	Dept Of Environmental Quality	Start Date:	1989-10-18 00:00:00
Further Action:	Not reported	Region ID:	Headquarters
Complete Date:	1990-06-06 00:00:00	Substance Code:	SAS
Rank Value:	0	Cleanup Flag:	False
Updated By:	dmc	Update Date:	1995-03-31 00:00:00
Created By:	Not reported	Create Date:	2002-12-17 08:50:22.
Employee Id:	304		
Comments :	Not reported		

Administrative Action: BASIC PRELIMINARY ASSESSEMENT
Admin Action Category: Not reported
Admin Flag: True
Admin Action Code Flag: False
Admin Action : BASIC PRELIMINARY ASSESSEMENT

Admin ID:	711367	Action ID:	9426
Agency ID :	Dept Of Environmental Quality	Start Date:	1997-01-06 00:00:00
Further Action:	Not reported	Region ID:	Western Region
Complete Date:	1997-01-06 00:00:00	Substance Code:	SAS
Rank Value:	0	Cleanup Flag:	False
Updated By:	slm	Update Date:	1997-01-07 00:00:00
Created By:	Not reported	Create Date:	2002-12-17 08:50:22.
Employee Id:	538		
Comments :	FTA for EPA Site Inspection of Camp Adair Site, which included the Boise Cascade area of site. See also ECSI #832 and #1044.		

Administrative Action: SITE PRIORITY EVALUATION FOR FURTHER ACTION
Admin Action Category: Not reported
Admin Flag: True
Admin Action Code Flag: False
Admin Action : SITE PRIORITY EVALUATION FOR FURTHER ACTION

Admin ID:	716160	Action ID:	9424
Agency ID :	Dept Of Environmental Quality	Start Date:	1989-10-03 00:00:00
Further Action:	Not reported	Region ID:	Headquarters
Complete Date:	Not reported	Substance Code:	SAS
Rank Value:	0	Cleanup Flag:	False
Updated By:	dmc	Update Date:	1995-03-31 00:00:00
Created By:	Not reported	Create Date:	2002-12-17 08:50:22.
Employee Id:	304		
Comments :	Not reported		

Administrative Action: Site added to database
Admin Action Category: Not reported
Admin Flag: True
Admin Action Code Flag: False
Admin Action : Site added to database

Admin ID:	716864	Action ID:	9425
Agency ID :	Dept Of Environmental Quality	Start Date:	1989-10-17 00:00:00
Further Action:	Not reported	Region ID:	Headquarters
Complete Date:	1989-10-17 00:00:00	Substance Code:	SAS
Rank Value:	0	Cleanup Flag:	False
Updated By:	dmc	Update Date:	1995-03-31 00:00:00
Created By:	Not reported	Create Date:	2002-12-17 08:50:22.
Employee Id:	304		
Comments :	Not reported		

BOISE CASCADE - CAMP ADAIR (Continued) **S103841995**

Administrative Action:	SITE EVALUATION
Admin Action Category:	Not reported
Admin Flag:	True
Admin Action Code Flag:	False
Admin Action :	SITE EVALUATION

Admin ID:	716865	Action ID:	9496
Agency ID :	Dept Of Environmental Quality	Start Date:	1989-10-17 00:00:00
Further Action:	Not reported	Region ID:	Headquarters
Complete Date:	1989-10-17 00:00:00	Substance Code:	SAS
Rank Value:	0	Cleanup Flag:	False
Updated By:	dmc	Update Date:	1995-03-31 00:00:00
Created By:	Not reported	Create Date:	2002-12-17 08:50:22.
Employee Id:	304		
Comments :	Not reported		

Administrative Action:	State Basic Preliminary Assessment recommended (PA)
Admin Action Category:	Not reported
Admin Flag:	True
Admin Action Code Flag:	False
Admin Action :	State Basic Preliminary Assessment recommended (PA)

DISPOSAL:

Disposal ID:	Not reported	Feature ID:	Not reported
Medium :	Not reported		
Treatment :	Not reported		
Disposal Method:	Not reported		
Start Date:	Not reported	End Date:	Not reported
Disposal Flag:	Not reported	Disposal Qty:	Not reported
Unit Code:	Not reported		
Depth :	Not reported		
Monitor :	Not reported		
Manifest Num :	Not reported		
Removed By :	Not reported		
Loc Comments:	Not reported		
Disposal Sub ID:	Not reported		
Substance ID:	Not reported		
Created By:	Not reported		
Create Date:	Not reported		

FEATURE:

Feature Id :	Not reported
Site Id :	Not reported
Feature Code :	Not reported
Relative Position :	Not reported
Hazard Rel Id :	Not reported
Region Code :	Not reported
Lat Long Method :	Not reported
Lat Long Source :	Not reported
County Code :	Not reported
Refrence Id :	Not reported
Twnshp Coord :	Not reported
Township Zone :	Not reported
Range Coord :	Not reported
Range Zone :	Not reported
Section Coord :	Not reported
Qtr Section Coord :	Not reported
Address :	Not reported
	Not reported

BOISE CASCADE - CAMP ADAIR (Continued) **S103841995**

Zip Plus : Not reported
Lat/Long : Not reported
Lat/Lon Decimal : Not reported
Feature Size : Not reported
Est Accuracy : Not reported
Created On Date : Not reported
Created By Prgm : Not reported
Last Updated By : Not reported
Last Updated On : Not reported
Comment : Not reported

WELL:
Well ID: Not reported
Water Resource Code: Not reported
Effective Date: Not reported
Aquifer Code: Not reported
Ground Station Key: Not reported

OPERATIONS:
Operation Id : 132240
Operation Status : Inactive
Common Name : Boise Cascade - Camp Adair
Yrs of Operation : 1940-1981
Comments : 1940-1981
Updated By : jxh
Updated Date : 1995-03-17 00:00:00

Process Code ID: Not reported
Years Of Process: Not reported
Created By: Not reported
Created Date: Not reported

Operations SIC Id: 194968
SIC Code: 9711
Created By: Not reported
Created Date: 2002-12-17 08:50:34.
Operations SIC Id: 194969
SIC Code: 2435
Created By: Not reported
Created Date: 2002-12-17 08:50:34.

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23 **QWEST CORPORATION** **HSIS** **S105744810**
SSE **4111 NE LAUREL DR** **AST** **N/A**
> 1 **ADAIR VILLAGE, OR 97330**
11152 ft.

Relative:
Lower

Actual:
323 ft.

HSIS:
Emergency Contact: BUILDING OPERATIONS CENTER
Emergency Procedure: Not reported
Chemical Trade Name: DIESEL FUEL
Manager Name: QWEST CORPORATION
Mailing Address: 1600 7TH AVE RM 2206
SEATTLE, WA 98191
Mailing County: KING
Day Phone: 8002017033
Employee File #: 020875
No. of Employees: 0
Placard: Yes
Business Type: TELECOMMUNICATIONS
Sprinkler System: No
Business Phone: 2063467532

QWEST CORPORATION (Continued) **S105744810**

Department Or Division Of Company:	R00340
Facility Has Written Emergency Plan:	No
Company Name:	QWEST CORPORATION
Fire Dept Code:	0000
Physical State :	Not reported
Physical State Of The Substance:	LIQUID
Average Amount Possessed During The Year Code:	04
Description Of The Avg Qnty Code:	50-199
Maximum Amount Possessed During The Year Code:	04
Description Of The Max Qnty Code:	50-199
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	
Type Code:	A
Description:	ABOVEGROUND TANK
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1993
Chemical Abstract Service Identifier Number:	68334305
First Hazardous Classification Code For Chemical:	3.3
Hazard Classification 1 Of The Chemical:	Flammable Liq. (73F<FP<141F)
Second Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 2 Of The Chemical:	Not reported
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Mixture
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	PETROLEUM MID-DISTILLATES
Contains 112R :	No
Contains EHS:	No
Contains 313:	No
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	517910
NAICS Desc 1:	OTHER TELECOMMUNICATIONS
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	BUILDING OPERATIONS CENTER
Emergency Procedure: Not reported	
Chemical Trade Name:	LEAD ACID BATTERIES-WET
Manager Name:	QWEST CORPORATION
Mailing Address:	1600 7TH AVE RM 2206 SEATTLE, WA 98191
Mailing County:	KING
Day Phone:	8002017033
Employee File #:	020875
No. of Employees:	0
Placard:	Yes

QWEST CORPORATION (Continued) **S105744810**

Business Type:	TELECOMMUNICATIONS
Sprinkler System:	No
Business Phone:	2063467532
Department Or Division Of Company:	R00340
Facility Has Written Emergency Plan:	No
Company Name:	QWEST CORPORATION
Fire Dept Code:	0000
Physical State :	Not reported
Physical State Of The Substance:	SOLID
Average Amount Possessed During The Year Code:	11
Description Of The Avg Qnty Code:	500-999
Maximum Amount Possessed During The Year Code:	11
Description Of The Max Qnty Code:	500-999
Applicable Unit Of Measure Code:	1
Description Of The Unit Of Measure:	POUNDS
Storage Container:	
Type Code:	R
Description:	OTHER
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	2800
Chemical Abstract Service Identifier Number:	7664939
First Hazardous Classification Code For Chemical:	8.0
Hazard Classification 1 Of The Chemical:	Corrosives
Second Hazardous Classification Code For Chemical:	6.3
Hazard Classification 2 Of The Chemical:	Acute Health Hazard
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Mixture
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Yes
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	SULFURIC ACID
Contains 112R :	No
Contains EHS:	Yes
Contains 313:	Yes
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	517910
NAICS Desc 1:	OTHER TELECOMMUNICATIONS
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported

AST:

Employer File Number:	020875
Hazardous Substance:	DIESEL FUEL
Reporting Quantities:	50-199
Quantity Units:	GALLONS
Physical State:	LIQUID
Storage 1:	ABOVEGROUND TANK

H24
SSE
> 1
12060 ft.

Relative:
Lower

Actual:
333 ft.

CORVALLIS WASTE WATER HOT — **LUST** — **S103543523**
1304 NE 2ND — **N/A**
CORVALLIS, OR 97330

Site 1 of 5 in cluster H

LUST:

Facility ID:	02-98-4203
Region:	Western Region
Cleanup Start:	14-Dec-98
Closed Date:	Not reported
Cleanup Complete:	Not reported

H25
SSE
> 1
12060 ft.

Relative:
Lower

Actual:
333 ft.

CORVALLIS, CITY OF - WWRP — **UST** — **U000434361**
1304 NE 2ND ST — **N/A**
CORVALLIS, OR 97330

Site 2 of 5 in cluster H

UST:

Facility ID:	2032
Facility Telephone:	(503) 757-6934/5
Permittee Name:	CLARENCE CLARK
Active Tanks:	Not reported
Decommissioned Tanks:	1
Number of Permitted Tanks:	Not reported
Number of Upgraded Tanks:	1

H26
SSE
> 1
12060 ft.

Relative:
Lower

Actual:
333 ft.

CORVALLIS CITY OF — **FINDS** — **1007150976**
1304 NORTHEAST 2ND STREET — **110016653450**
CORVALLIS, OR 97339

Site 3 of 5 in cluster H

FINDS:

Other Pertinent Environmental Activity Identified at Site:
OREGON-DEPARTMENT OF ENVIRONMENTAL QUALITY
PERMIT COMPLIANCE SYSTEM
SAFE DRINKING WATER INFORMATION SYSTEM

H27
SSE
> 1
12060 ft.

Relative:
Lower

Actual:
333 ft.

OR HAZMAT — **S105526311**
1304 NE 2ND — **N/A**
CORVALLIS, OR 97330

Site 4 of 5 in cluster H

HAZMAT:

Facility ID:	0076-880434		
Incident District:	CORVALLIS		
Incident Day:	Thu	Dept Resp:	CORVALLIS FIRE DEPARTMENT
Alarm Time:	12/30/1899	Arrival Time:	12/30/1899
Back in Service:	12/30/1899	Company:	WOODIE MUIRHEAD
Responsble Party:	WOODIE MUIRHEAD 1304 NE 2ND CORVALLIS, OR 97330		
RP Phone:	(541) 757-6934	RP Phone 2:	Not reported
Scene Type:	Not reported	Area Type:	Not reported
Wind Direction:	Not reported	Wind Speed:	Not reported
WFair:	True		
Num U Desc:	Not reported	Num U Fire:	1

(Continued) **S105526311**

Num U Local:	0	Num U State:	0
Num U Police:	0	Num U Public Wks:	0
Num U Amb:	1	Num U Agency:	0
Num U Federal:	0	Num U RR:	0
Num U Other:	0		
Act Secure Area:	True	Act Crowd Control:	True
Act Hot Zone:	False		
Act on Site:	True	Act Tansport:	False
Sol Com Vecicle:	False	Mi Fuel:	False
Chemical:	CHLORINE		
Num Cont 1:	1	Size Cont 1:	2000
Num Cont 2:	0	Size Cont 2:	0
Num Cont 3:	0	Size Cont 3:	0
Num Cont 4:	0	Size Cont 4:	0
Num Cont 5:	0	Size Cont 5:	0
Amt Rsk G1:	0	Amt Rel G1:	0
Amt Rsk G2:	0	Amt Rel G2:	0
Amt Rsk G3:	0	Amt Rel G3:	0
Amt Rsk G4:	0	Amt Rel G4:	0
Amt Rsk G5:	0		
Mu Chem Trec:	False	Mu Ship Papers:	False
Mu Placards:	False	Mu On Scene Test:	False
Mu Other Desc:	Not reported		
Vehical Plus:	0	Fixed Property:	0
Fire Inj:	0	Fire Death:	0
Fire Decon:	0	Fire Treat:	0
Fire Hopital:	0		
Civ Inj:	0	Civ Death:	0
Civ Decon:	0	Civ Treat:	0
Civ Hopital:	0		
Other Inj:	0	Other Death:	0
Other Decon:	0	Other Treat:	0
Other Hopital:	0		
Person File:	RANDY BRODEHL	Title Person File:	CAPTAIN
Agency:	CORVALLIS FD	Agency ID:	Not reported
Num U Deq:	0	Inc Num Short:	880434
Hazmat Team:	0	Hazmat local:	False
Hazmat State:	False	Agency Phone:	(541) 757-6961
ID Number:	Not reported	OERS Number:	Not reported
Dept Rsp 2:	Not reported		
St Pub Road:	False	St Pub Struct:	True
St Pub Land:	False	St Forest:	False
St Other:	False		
St Pri Road:	False	St Pri Struct:	False
St Waterway:	False	St Pri Land:	False
A Industrial:	True	A Residential:	False
A Forest:	False	A commercial:	False
A Rural Agri:	False		
W Rain:	False	W Fog:	False
W Snow Ice:	False		
W Sunny:	False	W Other Desc:	Not reported
Act Activate Oers:	False	Act Traffic:	False
Act Exiting:	False	Act ID Hazmat:	True
Act Evcuate:	True	Act Decontam:	False
Act Evaluate:	False	Act Cleanup:	True
Act Pub Info:	False	Act Remote Haz:	False
Soi Drug Lab:	False	Soi Car:	False

(Continued) **S105526311**

Soi Fixed Facility:	True	Soi Train:	False
Soi Pipeline:	False	Soi Ship:	False
Soi Aircraft:	False	Soi Other:	F
Soi Desc:	F	Soi Other Desc:	Not reported
Mi Cargo:	False	Mi Product:	True
Mi Waste Mat:	False		
Coi Normal Op:	False	Coi Dur Fire:	False
Coi Dur Storage:	False	Coi Excavation:	False
Coi Railcar:	False	Coi MVA:	False
Coi Durmanuf:	True	Coi Unauthor:	False
Coi Derailment:	False	Coi Dur Repair:	False
Coi Abandon:	False	Coi in Transit:	False
Coi Docked:	False	Coi Mat not Rel:	False
Amt Rilb1:	10	Amt Ricf1:	0
Amt Rilb2:	0	Amt Ricf2:	0
Amt Rilb3:	0	Amt Ricf3:	0
Amt Rilb4:	0	Amt Ricf4:	0
Amt Rilb5:	0	Amt Ricf5:	0
A Other:	F	Num U State Ag:	0
Amt Rsk P1:	0	Amt Rsk C1:	0
Amt Rsk P2:	0	Amt Rsk C2:	0
Amt Rsk P3:	0	Amt Rsk C3:	0
Amt Rsk P4:	0	Amt Rsk C4:	0
Amt Rsk P5:	0	Amt Rsk C5:	0
Mu Sfm Hazcom:	False	Mu Off Scene:	False
Mu Text Book:	False	Mu Other:	False
Mu Resp Party:	True		
FD Id:	0076		
Incident Date:	07/28/1988		
Agency Report # :	Not reported		
Hmb Cont Fire:	False	Hmb Cause Fire:	False
In Route :	12/30/1899		
Date Added:	/ /		
Unit:	Not reported		
Hmb Caus Explo:	False	Hmb Cont Explo:	False

Hmb Inert No React:	False
Hmb Bec Airborne:	True
Hmb Contam Area:	False
Hmb Enterd Water:	False
Comments:	EMPLOYEE BATES, SHEILA R. OPENED CHLORINE TANK LINE IN THE PROCESS OF CHANGING A ONE TON TANK. THE LINE WAS STILL CHARGED AND BEGAN LEAKING. SHE EVACUATED THE BUILDING. SHE WAS LATER SEEN BY OUR PARAMEDICS BUT REFUSED TREATMENT. THE LEAK CONTINU ED AND WAS VENTED AUTOMATICALLY BY BUILDING SYSTEM. UPON OUR ARRIVAL, TWO PLANT EMPLOYEES WERE WORKING ON LEAK. THEY WERE WEARING BREATHING APPARATUS. WE ASSISTED AND STOODBY UNTIL TANK WAS CLOSED AND CHANGED OUT. SEE ALARM #88-1822. OSFM NOTE: NO ATTACHMENTS

H28 **OR HAZMAT** **S102044802**
SSE **1204 NE 2ND ST** **N/A**
> 1 **CORVALLIS, OR 97330**
12198 ft.

Site 5 of 5 in cluster H

Relative:
Lower

Actual:
332 ft.

HAZMAT:

Facility ID:	HM05-930235		
Incident District:	CORVALLIS		
Incident Day:	Tue	Dept Resp:	HAZMAT TEAM LINN\\BENTON
Alarm Time:	12/30/1899	Arrival Time:	12/30/1899
Back in Service:	12/30/1899	Company:	Not reported
Responsble Party:	OSP		
	Not reported		
	Not reported		
RP Phone:	Not reported	RP Phone 2:	Not reported
Scene Type:	Not reported	Area Type:	Not reported
Wind Direction:	Not reported	Wind Speed:	Not reported
WFair:	False		
Num U Desc:	Not reported	Num U Fire:	1
Num U Local:	0	Num U State:	1
Num U Police:	2	Num U Public Wks:	0
Num U Amb:	0	Num U Agency:	1
Num U Federal:	0	Num U RR:	0
Num U Other:	0		
Act Secure Area:	True	Act Crowd Control:	False
Act Hot Zone:	True		
Act on Site:	False	Act Tansport:	False
Sol Com Vecicle:	False	Mi Fuel:	False
Chemical:	UNKNOWN CHEMICAL		
Num Cont 1:	0	Size Cont 1:	0
Num Cont 2:	0	Size Cont 2:	0
Num Cont 3:	0	Size Cont 3:	0
Num Cont 4:	0	Size Cont 4:	0
Num Cont 5:	0	Size Cont 5:	0
Amt Rsk G1:	0	Amt Rel G1:	0
Amt Rsk G2:	0	Amt Rel G2:	0
Amt Rsk G3:	0	Amt Rel G3:	0
Amt Rsk G4:	0	Amt Rel G4:	0
Amt Rsk G5:	0		
Mu Chem Trec:	False	Mu Ship Papers:	False
Mu Placards:	False	Mu On Scene Test:	False
Mu Other Desc:	Not reported		
Vehical Plus:	0	Fixed Property:	0
Fire Inj:	0	Fire Death:	0
Fire Decon:	0	Fire Treat:	0
Fire Hopital:	0		
Civ Inj:	0	Civ Death:	0
Civ Decon:	0	Civ Treat:	0
Civ Hopital:	0		
Other Inj:	0	Other Death:	0
Other Decon:	2	Other Treat:	0
Other Hopital:	0		
Person File:	JIM DAY	Title Person File:	CAPTAIN
Agency:	CORVALLIS	Agency ID:	Not reported
Num U Deq:	0	Inc Num Short:	930235
Hazmat Team:	05	Hazmat local:	False
Hazmat State:	False	Agency Phone:	757-6471
ID Number:	HM-05	OERS Number:	Not reported

(Continued) **S102044802**

Dept Rsp 2:	Not reported		
St Pub Road:	False	St Pub Struct:	False
St Pub Land:	False	St Forest:	False
St Other:	False		
St Pri Road:	False	St Pri Struct:	True
St Waterway:	False	St Pri Land:	False
A Industrial:	False	A Residential:	True
A Forest:	False	A commercial:	False
A Rural Agri:	False		
W Rain:	True	W Fog:	False
W Snow Ice:	False		
W Sunny:	False	W Other Desc:	Not reported
Act Activate Oers:	False	Act Traffic:	True
Act Exiting:	False	Act ID Hazmat:	True
Act Evcuate:	False	Act Decontam:	False
Act Evaluate:	False	Act Cleanup:	False
Act Pub Info:	False	Act Remote Haz:	True
Soi Drug Lab:	True	Soi Car:	False
Soi Fixed Facility:	False	Soi Train:	False
Soi Pipeline:	False	Soi Ship:	False
Soi Aircraft:	False	Soi Other:	F
Soi Desc:	F	Soi Other Desc:	Not reported
Mi Cargo:	False	Mi Product:	True
Mi Waste Mat:	False		
Coi Normal Op:	False	Coi Dur Fire:	False
Coi Dur Storage:	False	Coi Excavation:	False
Coi Railcar:	False	Coi MVA:	False
Coi Durmanuf:	False	Coi Unauthor:	False
Coi Derailment:	False	Coi Dur Repair:	False
Coi Abandon:	False	Coi in Transit:	False
Coi Docked:	False	Coi Mat not Rel:	True
Amt Rilb1:	0	Amt Ricf1:	0
Amt Rilb2:	0	Amt Ricf2:	0
Amt Rilb3:	0	Amt Ricf3:	0
Amt Rilb4:	0	Amt Ricf4:	0
Amt Rilb5:	0	Amt Ricf5:	0
A Other:	F	Num U State Ag:	1
Amt Rsk P1:	0	Amt Rsk C1:	0
Amt Rsk P2:	0	Amt Rsk C2:	0
Amt Rsk P3:	0	Amt Rsk C3:	0
Amt Rsk P4:	0	Amt Rsk C4:	0
Amt Rsk P5:	0	Amt Rsk C5:	0
Mu Sfm Hazcom:	False	Mu Off Scene:	False
Mu Text Book:	False	Mu Other:	False
Mu Resp Party:	False		
FD Id:	-05		
Incident Date:	06/01/1993		
Agency Report # :	93-1266		
Hmb Cont Fire:	False	Hmb Cause Fire:	False
In Route :	12/30/1899		
Date Added:	/ /		
Unit:	Not reported		
Hmb Caus Explo:	False	Hmb Cont Explo:	False
Hmb Inert No React:	False		
Hmb Bec Airborne:	False		
Hmb Contam Area:	False		
Hmb Enterd Water:	False		

(Continued) **S102044802**

Comments: OREGON STATE POLICE REQUESTED ASSISTANCE TO COLLECT SAMPLE AND FINGER PRINT EVIDENCE OF CHEMICAL STOLEN FOR RESALE FOR INTENT OF MAKING DRUGS CORVALLIS FIRE DEPARTMENT PROVIDED FIRE PROTECTION BACK UP RESCUE TEAM AND DECTAMINIATION FOR OSP NO RELEAS
E OR

I29 **AT&T CORP** **HSIS** **S103705186**
SSE **900 NE 2ND ST** **N/A**
> 1 **CORVALLIS, OR 97330**
12630 ft.

Site 1 of 7 in cluster I

Relative:
Lower

Actual:
323 ft.

HSIS:

Emergency Contact:	TOM NORMOYLE
Emergency Procedure: Not reported	
Chemical Trade Name:	DIESEL FUEL
Manager Name:	Not reported
Mailing Address:	898 MARIE LN CONYERS, GA 30094
Mailing County:	ROCKDALE
Day Phone:	5035881899
Employee File #:	021035
No. of Employees:	0
Placard:	Yes
Business Type:	TELEPHONE COMMUNICATIONS
Sprinkler System:	Yes
Business Phone:	5035881899
Department Or Division Of Company:	CORVALLIS FIBER TERM
Facility Has Written Emergency Plan:	Yes
Company Name:	AT&T CORP
Fire Dept Code:	0076
Physical State :	Not reported
Physical State Of The Substance:	LIQUID
Average Amount Possessed During The Year Code:	10
Description Of The Avg Qnty Code:	200-499
Maximum Amount Possessed During The Year Code:	10
Description Of The Max Qnty Code:	200-499
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	
Type Code:	C
Description:	TANK INSIDE BUILDING
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1993
Chemical Abstract Service Identifier Number:	68334305
First Hazardous Classification Code For Chemical:	3.3
Hazard Classification 1 Of The Chemical:	Flammable Liq. (73F<FP<141F)
Second Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 2 Of The Chemical:	Not reported
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Pure
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported

AT&T CORP (Continued) **S103705186**

Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	PETROLEUM MID-DISTILLATES
Contains 112R :	No
Contains EHS:	No
Contains 313:	No
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	517110
NAICS Desc 1:	WIRED TELECOMMUNICATIONS CARRIERS
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	TOM NORMOYLE
Emergency Procedure: Not reported	
Chemical Trade Name:	LEAD ACID BATTERIES-WET
Manager Name:	Not reported
Mailing Address:	898 MARIE LN CONYERS, GA 30094
Mailing County:	ROCKDALE
Day Phone:	5035881899
Employee File #:	021035
No. of Employees:	0
Placard:	Yes
Business Type:	TELEPHONE COMMUNICATIONS
Sprinkler System:	Yes
Business Phone:	5035881899
Department Or Division Of Company:	CORVALLIS FIBER TERM
Facility Has Written Emergency Plan:	Yes
Company Name:	AT&T CORP
Fire Dept Code:	0076
Physical State :	Not reported
Physical State Of The Substance:	SOLID
Average Amount Possessed During The Year Code:	11
Description Of The Avg Qnty Code:	500-999
Maximum Amount Possessed During The Year Code:	11
Description Of The Max Qnty Code:	500-999
Applicable Unit Of Measure Code:	1
Description Of The Unit Of Measure:	POUNDS
Storage Container:	
Type Code:	R
Description:	OTHER
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	2800
Chemical Abstract Service Identifier Number:	7664939
First Hazardous Classification Code For Chemical:	8.0
Hazard Classification 1 Of The Chemical:	Corrosives
Second Hazardous Classification Code For Chemical:	6.3
Hazard Classification 2 Of The Chemical:	Acute Health Hazard
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported

AT&T CORP (Continued) **S103705186**

Is Substance Pure Or Mixture:	Pure
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Yes
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	SULFURIC ACID
Contains 112R :	No
Contains EHS:	Yes
Contains 313:	Yes
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	517110
NAICS Desc 1:	WIRED TELECOMMUNICATIONS CARRIERS
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported

I30 **UDALL, K HOT** **LUST** **S100498601**
SSE **6002 NE CARR** **N/A**
> 1 **ADAIR VILLAGE, OR 97330**
12686 ft.

Site 2 of 7 in cluster I

Relative:
Lower

LUST:

Facility ID:	02-92-4118
Region:	Western Region
Cleanup Start:	8-Jul-92
Closed Date:	Not reported
Cleanup Complete:	Not reported

Actual:
331 ft.

J31 **ADAIR RURAL FIRE STATION 1401** **FINDS** **1006851890**
SSE **6021 NE MARCUS HARRIS AVE** **110014138469**
> 1 **ADAIR VILLAGE, OR 97330**
12791 ft.

Site 1 of 4 in cluster J

Relative:
Lower

FINDS:

Other Pertinent Environmental Activity Identified at Site:
OREGON-DEPARTMENT OF ENVIRONMENTAL QUALITY

Actual:
328 ft.

J32 **ADAIR RURAL FIRE STATION 1401** **HSIS** **U000434341**
SSE **6021 NE MARCUS HARRIS AVE** **LUST** **N/A**
> 1 **ADAIR VILLAGE, OR 97330** **UST**
12791 ft. **AST**

Site 2 of 4 in cluster J

Relative:
Lower

LUST:

Facility ID:	02-93-4165
Region:	Western Region
Cleanup Start:	12-Jul-93
Closed Date:	18-Aug-03
Cleanup Complete:	26-Jun-03

Actual:
328 ft.

HSIS:

Emergency Contact:	CHARLES HARRIS
Emergency Procedure:	Not reported
Chemical Trade Name:	ACETYLENE
Manager Name:	CHARLES HARRIS

ADAIR RURAL FIRE STATION 1401 (Continued) **U000434341**

Mailing Address:	6021 MARCUS HARRIS AVE NE CORVALLIS, OR 97330
Mailing County:	BENTON
Day Phone:	5417457212
Employee File #:	049422
No. of Employees:	1
Placard:	No
Business Type:	FIRE PROTECTION
Sprinkler System:	No
Business Phone:	5417457212
Department Or Division Of Company:	Not reported
Facility Has Written Emergency Plan:	No
Company Name:	ADAIR RURAL FIRE PROTECTION
Fire Dept Code:	0001
Physical State :	Not reported
Physical State Of The Substance:	GAS
Average Amount Possessed During The Year Code:	04
Description Of The Avg Qnty Code:	50-199
Maximum Amount Possessed During The Year Code:	04
Description Of The Max Qnty Code:	50-199
Applicable Unit Of Measure Code:	3
Description Of The Unit Of Measure:	CUBIC FEET
Storage Container:	
Type Code:	L
Description:	CYLINDER
Pressure of Hazardous Substance Code:	2
Pressure Description:	GREATER THAN NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1001
Chemical Abstract Service Identifier Number:	74862
First Hazardous Classification Code For Chemical:	2.1
Hazard Classification 1 Of The Chemical:	Flammable Gases
Second Hazardous Classification Code For Chemical:	6.3
Hazard Classification 2 Of The Chemical:	Acute Health Hazard
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Pure
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	ACETYLENE
Contains 112R :	No
Contains EHS:	No
Contains 313:	No
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	922160
NAICS Desc 1:	FIRE PROTECTION
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	CHARLES HARRIS

ADAIR RURAL FIRE STATION 1401 (Continued) **U000434341**

Emergency Procedure: Not reported	
Chemical Trade Name:	OXYGEN
Manager Name:	CHARLES HARRIS
Mailing Address:	6021 MARCUS HARRIS AVE NE CORVALLIS, OR 97330
Mailing County:	BENTON
Day Phone:	5417457212
Employee File #:	049422
No. of Employees:	1
Placard:	No
Business Type:	FIRE PROTECTION
Sprinkler System:	No
Business Phone:	5417457212
Department Or Division Of Company:	Not reported
Facility Has Written Emergency Plan:	No
Company Name:	ADAIR RURAL FIRE PROTECTION
Fire Dept Code:	0001
Physical State :	Not reported
Physical State Of The Substance:	GAS
Average Amount Possessed During The Year Code:	04
Description Of The Avg Qnty Code:	50-199
Maximum Amount Possessed During The Year Code:	04
Description Of The Max Qnty Code:	50-199
Applicable Unit Of Measure Code:	3
Description Of The Unit Of Measure:	CUBIC FEET
Storage Container:	
Type Code:	L
Description:	CYLINDER
Pressure of Hazardous Substance Code:	2
Pressure Description:	GREATER THAN NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1072
Chemical Abstract Service Identifier Number:	7782447
First Hazardous Classification Code For Chemical:	2.2
Hazard Classification 1 Of The Chemical:	NonFlammable Gases
Second Hazardous Classification Code For Chemical:	5.1
Hazard Classification 2 Of The Chemical:	Oxidizers
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Pure
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	OXYGEN
Contains 112R :	No
Contains EHS:	No
Contains 313:	No
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	922160
NAICS Desc 1:	FIRE PROTECTION
NAICS Code 2:	Not reported

ADAIR RURAL FIRE STATION 1401 (Continued) **U000434341**

NAICS Desc 2:	Not reported
Emergency Contact:	CHARLES HARRIS
Emergency Procedure: Not reported	
Chemical Trade Name:	PROPANE
Manager Name:	CHARLES HARRIS
Mailing Address:	6021 MARCUS HARRIS AVE NE CORVALLIS, OR 97330
Mailing County:	BENTON
Day Phone:	5417457212
Employee File #:	049422
No. of Employees:	1
Placard:	No
Business Type:	FIRE PROTECTION
Sprinkler System:	No
Business Phone:	5417457212
Department Or Division Of Company:	Not reported
Facility Has Written Emergency Plan:	No
Company Name:	ADAIR RURAL FIRE PROTECTION
Fire Dept Code:	0001
Physical State :	Not reported
Physical State Of The Substance:	GAS
Average Amount Possessed During The Year Code:	10
Description Of The Avg Qnty Code:	200-499
Maximum Amount Possessed During The Year Code:	10
Description Of The Max Qnty Code:	200-499
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	
Type Code:	A
Description:	ABOVEGROUND TANK
Pressure of Hazardous Substance Code:	2
Pressure Description:	GREATER THAN NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1075
Chemical Abstract Service Identifier Number:	74986
First Hazardous Classification Code For Chemical:	2.1
Hazard Classification 1 Of The Chemical:	Flammable Gases
Second Hazardous Classification Code For Chemical:	6.3
Hazard Classification 2 Of The Chemical:	Acute Health Hazard
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Pure
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	PROPANE
Contains 112R :	No
Contains EHS:	No
Contains 313:	No
Fertilizer:	No
Pesticide:	No

ADAIR RURAL FIRE STATION 1401 (Continued) **U000434341**

NAICS Code 1: 922160
NAICS Desc 1: FIRE PROTECTION
NAICS Code 2: Not reported
NAICS Desc 2: Not reported

UST:
Facility ID: 9912
Facility Telephone: (503)745-5044
Permittee Name: ELIZABETH HARVEY
Active Tanks: Not reported
Decommissioned Tanks: 1
Number of Permitted Tanks: Not reported
Number of Upgraded Tanks: 1

AST:
Employer File Number: 049422
Hazardous Substance: PROPANE
Reporting Quantities: 200-499
Quantity Units: GALLONS
Physical State: GAS
Storage 1: ABOVEGROUND TANK

I33
SSE
> 1
12803 ft.

Relative:
Lower

Actual:
321 ft.

AT&T TD-2 MAUPORQ5750 **LUST** **U000434390**
STAR ROUTE, BOX 1A **UST** **N/A**
MAUPIN, OR 97037

Site 3 of 7 in cluster I

LUST:
Facility ID: 02-89-4129
Region: Western Region
Cleanup Start: 18-Sep-89
Closed Date: 21-Nov-89
Cleanup Complete: 21-Nov-89

UST:
Facility ID: 373
Facility Telephone: (503)389-8126
Permittee Name: R M GRIFFETH, OPERATIONS SUPERVISOR
Active Tanks: Not reported
Decommissioned Tanks: 2
Number of Permitted Tanks: Not reported
Number of Upgraded Tanks: 2

I34
SSE
> 1
12803 ft.

Relative:
Lower

Actual:
321 ft.

RIVERVIEW MARINA **FINDS** **1006848246**
781 NE 2ND ST **110014101239**
CORVALLIS, OR 97330

Site 4 of 7 in cluster I

FINDS:
Other Pertinent Environmental Activity Identified at Site:
OREGON-DEPARTMENT OF ENVIRONMENTAL QUALITY

I35 SSE > 1 12803 ft. | **RIVERVIEW MARINA** | **UST** | **U003999007**
781 NE 2ND ST | **N/A**
CORVALLIS, OR 97330

Site 5 of 7 in cluster I

Relative: Lower

Actual: 321 ft.

UST:

Facility ID:	3730
Facility Telephone:	(503) 753-4875
Permittee Name:	FRANK R ECKLES, OWNER/MANAGER
Active Tanks:	Not reported
Decommissioned Tanks:	3
Number of Permitted Tanks:	Not reported
Number of Upgraded Tanks:	3

I36 SSE > 1 12814 ft. | **ODFW** | **HSIS** | **S103419440**
7118 NE VANDENBERG AVE | **N/A**
CORVALLIS, OR 97330

Site 6 of 7 in cluster I

Relative: Lower

Actual: 324 ft.

HSIS:

Emergency Contact:	SUZANNE KNAPP
Emergency Procedure:	FRONT RECEPTION & EACH OFFICE
Chemical Trade Name:	PROPANE
Manager Name:	Not reported
Mailing Address:	7118 NE VANDENBERG AVE CORVALLIS, OR 97330 - 9446
Mailing County:	BENTON
Day Phone:	5417574186
Employee File #:	005743
No. of Employees:	20
Placard:	No
Business Type:	NATURAL RESOURCE AGENCY
Sprinkler System:	No
Business Phone:	5417574186
Department Or Division Of Company:	S WLLMTTE WTRSHD DIST OFF
Facility Has Written Emergency Plan:	Yes
Company Name:	ODFW
Fire Dept Code:	0001
Physical State :	Not reported
Physical State Of The Substance:	GAS
Average Amount Possessed During The Year Code:	03
Description Of The Avg Qnty Code:	20-49
Maximum Amount Possessed During The Year Code:	04
Description Of The Max Qnty Code:	50-199
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	
Type Code:	L
Description:	CYLINDER
Pressure of Hazardous Substance Code:	2
Pressure Description:	GREATER THAN NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1075
Chemical Abstract Service Identifier Number:	74986
First Hazardous Classification Code For Chemical:	2.1
Hazard Classification 1 Of The Chemical:	Flammable Gases

ODFW (Continued) **S103419440**

Second Hazardous Classification Code For Chemical:	6.3
Hazard Classification 2 Of The Chemical:	Acute Health Hazard
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Pure
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	PROPANE
Contains 112R :	No
Contains EHS:	No
Contains 313:	No
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	924120
NAICS Desc 1:	ADMIN OF CONSERVATION PROGRAMS
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	SUZANNE KNAPP
Emergency Procedure: FRONT RECEPTION & EACH OFFICE	
Chemical Trade Name:	FORMALDEHYDE/METHANOL
Manager Name:	Not reported
Mailing Address:	7118 NE VANDENBERG AVE CORVALLIS, OR 97330 - 9446
Mailing County:	BENTON
Day Phone:	5417574186
Employee File #:	005743
No. of Employees:	20
Placard:	No
Business Type:	NATURAL RESOURCE AGENCY
Sprinkler System:	No
Business Phone:	5417574186
Department Or Division Of Company:	S WLLMTTE WTRSHD DIST OFF
Facility Has Written Emergency Plan:	Yes
Company Name:	ODFW
Fire Dept Code:	0001
Physical State :	Not reported
Physical State Of The Substance:	LIQUID
Average Amount Possessed During The Year Code:	01
Description Of The Avg Qnty Code:	5-9
Maximum Amount Possessed During The Year Code:	04
Description Of The Max Qnty Code:	50-199
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	
Type Code:	N
Description:	PLASTIC BOTTLE, JUG, BUCKET
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	Not reported

ODFW (Continued) **S103419440**

Chemical Abstract Service Identifier Number:	50000
First Hazardous Classification Code For Chemical:	4.5
Hazard Classification 1 Of The Chemical:	Combustible Materials
Second Hazardous Classification Code For Chemical:	6.4
Hazard Classification 2 Of The Chemical:	Chronic Health Hazard
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Mixture
Hazard Rank:	3
Chemical Is An Extremely Hazardous Substance (ehs):	Yes
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	FORMALDEHYDE
Contains 112R :	Yes
Contains EHS:	No
Contains 313:	Yes
Fertilizer:	Not reported
Pesticide:	Not reported
NAICS Code 1:	924120
NAICS Desc 1:	ADMIN OF CONSERVATION PROGRAMS
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported

I37 **OREGON ST DEPT OF FISH & WILDLIFE** **FINDS** **1004581538**
SSE **7118 NE VANDENBERG AVE** **FTTS INSP** **110011629933**
> 1 **CORVALLIS, OR 97330**
12820 ft.

Site 7 of 7 in cluster I

Relative:
Lower

Actual:
323 ft.

FTTS Insp:

Region:	03
Inspected Date:	03/07/2000
Insp Number:	20000307R3005 3
Violation occurred:	Yes
Inspector:	BOYER
Investigation Type:	Section 6 Asbestos Worker Protection SEE
Facility Function:	User
Investig Reason:	Not reported
Legislation Code:	TSCA

Region:	03
Inspected Date:	03/07/2000
Insp Number:	20000307R3005 2
Violation occurred:	Yes
Inspector:	BOYER
Investigation Type:	Asbestos, NESHAPS
Facility Function:	User
Investig Reason:	Not reported
Legislation Code:	TSCA

FINDS:
Other Pertinent Environmental Activity Identified at Site:
NATIONAL COMPLIANCE DATABASE SYSTEM

J38 NORTHWEST LABORERS EMPLOYERS **HSIS** **S105745746**
SSE 6011 NE MARCUS HARRIS AVE **AST** **N/A**
> 1 CORVALLIS, OR 97330
12888 ft.

Site 3 of 4 in cluster J

Relative: Lower

Actual: 328 ft.

HSIS:

Emergency Contact:	LEE-ANNE CLARK
Emergency Procedure: Not reported	
Chemical Trade Name:	ACETYLENE
Manager Name:	Not reported
Mailing Address:	201 QUEEN ANNE AVE N NO 100 SEATTLE, WA 98109
Mailing County:	KING
Day Phone:	5417455513
Employee File #:	056226
No. of Employees:	5
Placard:	Yes
Business Type:	CONSTURCTION TRAINING FOR LABORERS INTERNATIONAL UNION
Sprinkler System:	No
Business Phone:	5417455513
Department Or Division Of Company:	Not reported
Facility Has Written Emergency Plan:	Yes
Company Name:	NORTHWEST LABORERS EMPLOYERS
Fire Dept Code:	0001
Physical State :	Not reported
Physical State Of The Substance:	GAS
Average Amount Possessed During The Year Code:	10
Description Of The Avg Qnty Code:	200-499
Maximum Amount Possessed During The Year Code:	10
Description Of The Max Qnty Code:	200-499
Applicable Unit Of Measure Code:	3
Description Of The Unit Of Measure:	CUBIC FEET
Storage Container:	
Type Code:	L
Description:	CYLINDER
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1001
Chemical Abstract Service Identifier Number:	74862
First Hazardous Classification Code For Chemical:	2.1
Hazard Classification 1 Of The Chemical:	Flammable Gases
Second Hazardous Classification Code For Chemical:	6.3
Hazard Classification 2 Of The Chemical:	Acute Health Hazard
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Pure
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	Yes
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	ACETYLENE
Contains 112R :	No

NORTHWEST LABORERS EMPLOYERS (Continued) **S105745746**

Contains EHS:	No
Contains 313:	No
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	611519
NAICS Desc 1:	OTHER TECHNICAL & TRADE SCHOOLS
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	LEE-ANNE CLARK
Emergency Procedure: Not reported	
Chemical Trade Name:	ARGON
Manager Name:	Not reported
Mailing Address:	201 QUEEN ANNE AVE N NO 100 SEATTLE, WA 98109
Mailing County:	KING
Day Phone:	5417455513
Employee File #:	056226
No. of Employees:	5
Placard:	Yes
Business Type:	CONSTURCTION TRAINING FOR LABORERS INTERNATIONAL UNION
Sprinkler System:	No
Business Phone:	5417455513
Department Or Division Of Company:	Not reported
Facility Has Written Emergency Plan:	Yes
Company Name:	NORTHWEST LABORERS EMPLOYERS
Fire Dept Code:	0001
Physical State :	Not reported
Physical State Of The Substance:	GAS
Average Amount Possessed During The Year Code:	10
Description Of The Avg Qnty Code:	200-499
Maximum Amount Possessed During The Year Code:	10
Description Of The Max Qnty Code:	200-499
Applicable Unit Of Measure Code:	3
Description Of The Unit Of Measure:	CUBIC FEET
Storage Container:	
Type Code:	L
Description:	CYLINDER
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1006
Chemical Abstract Service Identifier Number:	7440371
First Hazardous Classification Code For Chemical:	2.2
Hazard Classification 1 Of The Chemical:	NonFlammable Gases
Second Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 2 Of The Chemical:	Not reported
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Mixture
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	Yes

NORTHWEST LABORERS EMPLOYERS (Continued) **S105745746**

Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	ARGON
Contains 112R :	No
Contains EHS:	No
Contains 313:	No
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	611519
NAICS Desc 1:	OTHER TECHNICAL & TRADE SCHOOLS
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	LEE-ANNE CLARK
Emergency Procedure: Not reported	
Chemical Trade Name:	OXYGEN
Manager Name:	Not reported
Mailing Address:	201 QUEEN ANNE AVE N NO 100 SEATTLE, WA 98109
Mailing County:	KING
Day Phone:	5417455513
Employee File #:	056226
No. of Employees:	5
Placard:	Yes
Business Type:	CONSTURCTION TRAINING FOR LABORERS INTERNATIONAL UNION
Sprinkler System:	No
Business Phone:	5417455513
Department Or Division Of Company:	Not reported
Facility Has Written Emergency Plan:	Yes
Company Name:	NORTHWEST LABORERS EMPLOYERS
Fire Dept Code:	0001
Physical State :	Not reported
Physical State Of The Substance:	GAS
Average Amount Possessed During The Year Code:	11
Description Of The Avg Qnty Code:	500-999
Maximum Amount Possessed During The Year Code:	11
Description Of The Max Qnty Code:	500-999
Applicable Unit Of Measure Code:	3
Description Of The Unit Of Measure:	CUBIC FEET
Storage Container:	
Type Code:	L
Description:	CYLINDER
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1072
Chemical Abstract Service Identifier Number:	7782447
First Hazardous Classification Code For Chemical:	2.2
Hazard Classification 1 Of The Chemical:	NonFlammable Gases
Second Hazardous Classification Code For Chemical:	5.1
Hazard Classification 2 Of The Chemical:	Oxidizers
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported

NORTHWEST LABORERS EMPLOYERS (Continued) **S105745746**

Is Substance Pure Or Mixture:	Mixture
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	Yes
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	OXYGEN
Contains 112R :	No
Contains EHS:	No
Contains 313:	No
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	611519
NAICS Desc 1:	OTHER TECHNICAL & TRADE SCHOOLS
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	LEE-ANNE CLARK
Emergency Procedure: Not reported	
Chemical Trade Name:	PROPANE
Manager Name:	Not reported
Mailing Address:	201 QUEEN ANNE AVE N NO 100 SEATTLE, WA 98109
Mailing County:	KING
Day Phone:	5417455513
Employee File #:	056226
No. of Employees:	5
Placard:	Yes
Business Type:	CONSTURCTION TRAINING FOR LABORERS INTERNATIONAL UNION
Sprinkler System:	No
Business Phone:	5417455513
Department Or Division Of Company:	Not reported
Facility Has Written Emergency Plan:	Yes
Company Name:	NORTHWEST LABORERS EMPLOYERS
Fire Dept Code:	0001
Physical State :	Not reported
Physical State Of The Substance:	LIQUID
Average Amount Possessed During The Year Code:	03
Description Of The Avg Qnty Code:	20-49
Maximum Amount Possessed During The Year Code:	03
Description Of The Max Qnty Code:	20-49
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	
Type Code:	L
Description:	CYLINDER
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1075
Chemical Abstract Service Identifier Number:	74986
First Hazardous Classification Code For Chemical:	2.1
Hazard Classification 1 Of The Chemical:	Flammable Gases

NORTHWEST LABORERS EMPLOYERS (Continued) **S105745746**

Second Hazardous Classification Code For Chemical:	6.3
Hazard Classification 2 Of The Chemical:	Acute Health Hazard
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Pure
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	Yes
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	PROPANE
Contains 112R :	No
Contains EHS:	No
Contains 313:	No
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	611519
NAICS Desc 1:	OTHER TECHNICAL & TRADE SCHOOLS
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	LEE-ANNE CLARK
Emergency Procedure: Not reported	
Chemical Trade Name:	MOTOR OIL
Manager Name:	Not reported
Mailing Address:	201 QUEEN ANNE AVE N NO 100 SEATTLE, WA 98109
Mailing County:	KING
Day Phone:	5417455513
Employee File #:	056226
No. of Employees:	5
Placard:	Yes
Business Type:	CONSTURCTION TRAINING FOR LABORERS INTERNATIONAL UNION
Sprinkler System:	No
Business Phone:	5417455513
Department Or Division Of Company:	Not reported
Facility Has Written Emergency Plan:	Yes
Company Name:	NORTHWEST LABORERS EMPLOYERS
Fire Dept Code:	0001
Physical State :	Not reported
Physical State Of The Substance:	LIQUID
Average Amount Possessed During The Year Code:	03
Description Of The Avg Qnty Code:	20-49
Maximum Amount Possessed During The Year Code:	04
Description Of The Max Qnty Code:	50-199
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	
Type Code:	D
Description:	STEEL DRUM
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No

NORTHWEST LABORERS EMPLOYERS (Continued) **S105745746**

United Nations/north America 4 Digit Classification Number:	1270
Chemical Abstract Service Identifier Number:	64742547
First Hazardous Classification Code For Chemical:	4.5
Hazard Classification 1 Of The Chemical:	Combustible Materials
Second Hazardous Classification Code For Chemical:	6.4
Hazard Classification 2 Of The Chemical:	Chronic Health Hazard
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Mixture
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	Yes
Chemical Is A Toxic 313 Chemical:	Not reported
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	PETROLEUM HYDROCARBONS
Contains 112R :	Not reported
Contains EHS:	Not reported
Contains 313:	Not reported
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	611519
NAICS Desc 1:	OTHER TECHNICAL & TRADE SCHOOLS
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported

Click this hyperlink while viewing on your computer to access
2 additional OR HSIS record(s) in the EDR Site Report.

AST:

Employer File Number:	056226
Hazardous Substance:	DIESEL
Reporting Quantities:	200-499
Quantity Units:	GALLONS
Physical State:	LIQUID
Storage 1:	ABOVEGROUND TANK

Employer File Number:	056226
Hazardous Substance:	GASOLINE
Reporting Quantities:	500-999
Quantity Units:	GALLONS
Physical State:	LIQUID
Storage 1:	ABOVEGROUND TANK

K39 **VALLEY LANDFILLS, INC** **FINDS** **1006852096**
East **29969 CAMP ADAIR RD** **110014140928**
> 1 **MONMOUTH, OR 97361**
12975 ft.

Site 1 of 4 in cluster K

Relative:
Lower

Actual:
225 ft.

FINDS:
Other Pertinent Environmental Activity Identified at Site:
OREGON-DEPARTMENT OF ENVIRONMENTAL QUALITY

K40 East > 1 12975 ft. | **PROCESSING& RECOVERY CENTER** | **FINDS** | **1006865741**
29969 CAMP ADAIR RD | **110014286370**
MONMOUTH, OR 97361

Site 2 of 4 in cluster K

Relative: Lower

FINDS:
Other Pertinent Environmental Activity Identified at Site:
OREGON-DEPARTMENT OF ENVIRONMENTAL QUALITY

Actual: 225 ft.

K41 East > 1 12975 ft. | **VALLEY LANDFILLS INC** | **HSIS** | **S104070734**
29969 CAMP ADAIR RD | **AST** | **N/A**
MONMOUTH, OR 97361

Site 3 of 4 in cluster K

Relative: Lower

HSIS:

Actual: 225 ft.

Emergency Contact:	BRIAN STONE
Emergency Procedure: CASHIERS OFFICE	
Chemical Trade Name:	ACETYLENE
Manager Name:	BRIAN STONE
Mailing Address:	28972 COFFIN BUTTE RD CORVALLIS, OR 97330
Mailing County:	BENTON
Day Phone:	5417455831
Employee File #:	043963
No. of Employees:	3
Placard:	Yes
Business Type:	DISPOSAL SITE CHIPPING & COMPOSING OP FOR YARD DEBRIS & WOOD WASTE
Sprinkler System:	No
Business Phone:	5417455831
Department Or Division Of Company:	PRC
Facility Has Written Emergency Plan:	Yes
Company Name:	VALLEY LANDFILLS INC
Fire Dept Code:	0001
Physical State :	Not reported
Physical State Of The Substance:	GAS
Average Amount Possessed During The Year Code:	10
Description Of The Avg Qnty Code:	200-499
Maximum Amount Possessed During The Year Code:	10
Description Of The Max Qnty Code:	200-499
Applicable Unit Of Measure Code:	3
Description Of The Unit Of Measure:	CUBIC FEET
Storage Container:	
Type Code:	L
Description:	CYLINDER
Pressure of Hazardous Substance Code:	2
Pressure Description:	GREATER THAN NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1001
Chemical Abstract Service Identifier Number:	74862
First Hazardous Classification Code For Chemical:	2.1
Hazard Classification 1 Of The Chemical:	Flammable Gases
Second Hazardous Classification Code For Chemical:	6.3
Hazard Classification 2 Of The Chemical:	Acute Health Hazard
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported

VALLEY LANDFILLS INC (Continued) **S104070734**

Is Substance Pure Or Mixture:	Pure
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	ACETYLENE
Contains 112R :	No
Contains EHS:	No
Contains 313:	No
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	562219
NAICS Desc 1:	OTHER NONHAZARDOUS WASTE TREATMENT & DISPO
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	BRIAN STONE
Emergency Procedure: CASHIERS OFFICE	
Chemical Trade Name:	ARGON/CARBON DIOXIDE MIXTURE
Manager Name:	BRIAN STONE
Mailing Address:	28972 COFFIN BUTTE RD CORVALLIS, OR 97330
Mailing County:	BENTON
Day Phone:	5417455831
Employee File #:	043963
No. of Employees:	3
Placard:	Yes
Business Type:	DISPOSAL SITE CHIPPING & COMPOSING OP FOR YARD DEBRIS & WOOD WASTE
Sprinkler System:	No
Business Phone:	5417455831
Department Or Division Of Company:	PRC
Facility Has Written Emergency Plan:	Yes
Company Name:	VALLEY LANDFILLS INC
Fire Dept Code:	0001
Physical State :	Not reported
Physical State Of The Substance:	GAS
Average Amount Possessed During The Year Code:	10
Description Of The Avg Qnty Code:	200-499
Maximum Amount Possessed During The Year Code:	10
Description Of The Max Qnty Code:	200-499
Applicable Unit Of Measure Code:	3
Description Of The Unit Of Measure:	CUBIC FEET
Storage Container:	
Type Code:	L
Description:	CYLINDER
Pressure of Hazardous Substance Code:	2
Pressure Description:	GREATER THAN NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1956
Chemical Abstract Service Identifier Number:	7440371
First Hazardous Classification Code For Chemical:	2.2
Hazard Classification 1 Of The Chemical:	NonFlammable Gases

VALLEY LANDFILLS INC (Continued) **S104070734**

Second Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 2 Of The Chemical:	Not reported
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Mixture
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	Not reported
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	ARGON
Contains 112R :	Not reported
Contains EHS:	Not reported
Contains 313:	Not reported
Fertilizer:	Not reported
Pesticide:	Not reported
NAICS Code 1:	562219
NAICS Desc 1:	OTHER NONHAZARDOUS WASTE TREATMENT & DISPO
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	BRIAN STONE
Emergency Procedure: CASHIERS OFFICE	
Chemical Trade Name:	OXYGEN
Manager Name:	BRIAN STONE
Mailing Address:	28972 COFFIN BUTTE RD CORVALLIS, OR 97330
Mailing County:	BENTON
Day Phone:	5417455831
Employee File #:	043963
No. of Employees:	3
Placard:	Yes
Business Type:	DISPOSAL SITE CHIPPING & COMPOSING OP FOR YARD DEBRIS & WOOD WASTE
Sprinkler System:	No
Business Phone:	5417455831
Department Or Division Of Company:	PRC
Facility Has Written Emergency Plan:	Yes
Company Name:	VALLEY LANDFILLS INC
Fire Dept Code:	0001
Physical State :	Not reported
Physical State Of The Substance:	GAS
Average Amount Possessed During The Year Code:	10
Description Of The Avg Qnty Code:	200-499
Maximum Amount Possessed During The Year Code:	11
Description Of The Max Qnty Code:	500-999
Applicable Unit Of Measure Code:	3
Description Of The Unit Of Measure:	CUBIC FEET
Storage Container:	
Type Code:	L
Description:	CYLINDER
Pressure of Hazardous Substance Code:	2
Pressure Description:	GREATER THAN NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No

VALLEY LANDFILLS INC (Continued) **S104070734**

United Nations/north America 4 Digit Classification Number:	1072
Chemical Abstract Service Identifier Number:	7782447
First Hazardous Classification Code For Chemical:	2.2
Hazard Classification 1 Of The Chemical:	NonFlammable Gases
Second Hazardous Classification Code For Chemical:	5.1
Hazard Classification 2 Of The Chemical:	Oxidizers
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Pure
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	OXYGEN
Contains 112R :	No
Contains EHS:	No
Contains 313:	No
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	562219
NAICS Desc 1:	OTHER NONHAZARDOUS WASTE TREATMENT & DISPO
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	BRIAN STONE
Emergency Procedure: CASHIERS OFFICE	
Chemical Trade Name:	ANTIFREEZE
Manager Name:	BRIAN STONE
Mailing Address:	28972 COFFIN BUTTE RD CORVALLIS, OR 97330
Mailing County:	BENTON
Day Phone:	5417455831
Employee File #:	043963
No. of Employees:	3
Placard:	Yes
Business Type:	DISPOSAL SITE CHIPPING & COMPOSING OP FOR YARD DEBRIS & WOOD WASTE
Sprinkler System:	No
Business Phone:	5417455831
Department Or Division Of Company:	PRC
Facility Has Written Emergency Plan:	Yes
Company Name:	VALLEY LANDFILLS INC
Fire Dept Code:	0001
Physical State :	Not reported
Physical State Of The Substance:	LIQUID
Average Amount Possessed During The Year Code:	04
Description Of The Avg Qnty Code:	50-199
Maximum Amount Possessed During The Year Code:	04
Description Of The Max Qnty Code:	50-199
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	
Type Code:	D
Description:	STEEL DRUM
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE

VALLEY LANDFILLS INC (Continued) **S104070734**

Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	3082
Chemical Abstract Service Identifier Number:	107211
First Hazardous Classification Code For Chemical:	6.3
Hazard Classification 1 Of The Chemical:	Acute Health Hazard
Second Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 2 Of The Chemical:	Not reported
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Mixture
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	ETHYLENE GLYCOL
Contains 112R :	No
Contains EHS:	No
Contains 313:	Yes
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	562219
NAICS Desc 1:	OTHER NONHAZARDOUS WASTE TREATMENT & DISPO
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	BRIAN STONE
Emergency Procedure: CASHIERS OFFICE	
Chemical Trade Name:	GASOLINE
Manager Name:	BRIAN STONE
Mailing Address:	28972 COFFIN BUTTE RD CORVALLIS, OR 97330
Mailing County:	BENTON
Day Phone:	5417455831
Employee File #:	043963
No. of Employees:	3
Placard:	Yes
Business Type:	DISPOSAL SITE CHIPPING & COMPOSING OP FOR YARD DEBRIS & WOOD WASTE
Sprinkler System:	No
Business Phone:	5417455831
Department Or Division Of Company:	PRC
Facility Has Written Emergency Plan:	Yes
Company Name:	VALLEY LANDFILLS INC
Fire Dept Code:	0001
Physical State :	Not reported
Physical State Of The Substance:	LIQUID
Average Amount Possessed During The Year Code:	04
Description Of The Avg Qnty Code:	50-199
Maximum Amount Possessed During The Year Code:	04
Description Of The Max Qnty Code:	50-199
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	

VALLEY LANDFILLS INC (Continued) **S104070734**

Type Code:	A
Description:	ABOVEGROUND TANK
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1203
Chemical Abstract Service Identifier Number:	8006619
First Hazardous Classification Code For Chemical:	3.1
Hazard Classification 1 Of The Chemical:	Flammable Liq.(FP<0F)
Second Hazardous Classification Code For Chemical:	6.3
Hazard Classification 2 Of The Chemical:	Acute Health Hazard
Third Hazardous Classification Code For Chemical:	6.4
Hazard Classification 3 Of The Chemical:	Chronic Health Hazard
Is Substance Pure Or Mixture:	Not reported
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	PETROLEUM DISTILLATES
Contains 112R :	No
Contains EHS:	No
Contains 313:	Yes
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	562219
NAICS Desc 1:	OTHER NONHAZARDOUS WASTE TREATMENT & DISPO
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported

Click this hyperlink while viewing on your computer to access
2 additional OR HSIS record(s) in the EDR Site Report.

AST:

Employer File Number:	043963
Hazardous Substance:	DIESEL FUEL
Reporting Quantities:	200-499
Quantity Units:	GALLONS
Physical State:	LIQUID
Storage 1:	ABOVEGROUND TANK

Employer File Number:	043963
Hazardous Substance:	GASOLINE
Reporting Quantities:	50-199
Quantity Units:	GALLONS
Physical State:	LIQUID
Storage 1:	ABOVEGROUND TANK

K42
East
> 1
12975 ft.

Relative:
Lower

Actual:
225 ft.

PROCESSING & RECOVERY CENTER
29969 CAMP ADAIR RD
MONMOUTH, OR 97361

SWF/LF **S105225758**
N/A

Site 4 of 4 in cluster K

LF:

Facility Id:	110490
Permit Number:	1237
Facility Phone:	(541) 745-2018
Facility Phone 2:	Not reported
Contact Name:	Brian Stone
Lat/Long:	44.699800000000 / -123.2198000000
Mailing Address:	28972 Coffin Butte Rd Corvallis, OR 97330
Facility Addr 2:	Not reported
Permit Status:	Active
Solid Waste:	
Type:	General
Closed:	Not reported
Date Opened:	1990-09-23

J43
SSE
> 1
12984 ft.

Relative:
Lower

Actual:
328 ft.

ADAIR VILLAGE
3RD / VANDENBERG AVE
ADAIR VILLAGE, OR 97330

LUST **S100500237**
N/A

Site 4 of 4 in cluster J

LUST:

Facility ID:	02-91-4077
Region:	Western Region
Cleanup Start:	Not reported
Closed Date:	Not reported
Cleanup Complete:	Not reported

L44
NNE
> 1
13882 ft.

Relative:
Lower

Actual:
216 ft.

HOWARD RASMUSSEN
13340 S PACIFIC HWY W
MONMOUTH, OR 97361

LUST **U000434656**
UST **N/A**

Site 1 of 2 in cluster L

LUST:

Facility ID:	27-90-4037
Region:	Western Region
Cleanup Start:	28-Feb-90
Closed Date:	15-Oct-91
Cleanup Complete:	15-Oct-91

UST:

Facility ID:	7574
Facility Telephone:	(503)745-5800
Permittee Name:	HOWARD RASMUSSEN, CURRENT OWNER
Active Tanks:	Not reported
Decommissioned Tanks:	2
Number of Permitted Tanks:	Not reported
Number of Upgraded Tanks:	2

L45 NNE > 1 13882 ft. — **HOWARD RASMUSSEN** — **FINDS** — **1006860576** / **110014232357**
13340 S PACIFIC HWY W
MONMOUTH, OR 97361

Site 2 of 2 in cluster L

Relative: Lower
Actual: 216 ft.

FINDS:
Other Pertinent Environmental Activity Identified at Site:
OREGON-DEPARTMENT OF ENVIRONMENTAL QUALITY

M46 NNE > 1 14838 ft. — **RICHARDS STORE** — **FINDS** — **1006862189** / **110014248796**
13160 S PACIFIC HWY W SUVER JCT
MONMOUTH, OR 97361

Site 1 of 2 in cluster M

Relative: Lower
Actual: 214 ft.

FINDS:
Other Pertinent Environmental Activity Identified at Site:
OREGON-DEPARTMENT OF ENVIRONMENTAL QUALITY

M47 NNE > 1 14872 ft. — **RICHARDS STORE** — **LUST** — **S100498733** / **N/A**
13160 S PACIFIC HWY WEST(SUVER JNCT
MONMOUTH, OR 97361

Site 2 of 2 in cluster M

Relative: Lower
Actual: 214 ft.

LUST:

Facility ID:	27-91-4295
Region:	Western Region
Cleanup Start:	27-Sep-91
Closed Date:	Not reported
Cleanup Complete:	Not reported

N48 NNE > 1 15579 ft. — **HIVELY POTTERY** — **HSIS AST** — **S105744388** / **N/A**
13005 S PACIFIC HWY S
MONMOUTH, OR 97361

Site 1 of 2 in cluster N

Relative: Lower
Actual: 216 ft.

HSIS:

Emergency Contact:	ANDREW FOSTER
Emergency Procedure:	Not reported
Chemical Trade Name:	PROPANE
Manager Name:	DOUG HIVELY
Mailing Address:	PO BOX 175 MONMOUTH, OR 97361
Mailing County:	POLK
Day Phone:	5034249300
Employee File #:	008545
No. of Employees:	2
Placard:	No
Business Type:	POTTERY
Sprinkler System:	No
Business Phone:	5038383989
Department Or Division Of Company:	Not reported
Facility Has Written Emergency Plan:	No
Company Name:	HIVELY POTTERY
Fire Dept Code:	0472
Physical State :	Not reported
Physical State Of The Substance:	GAS

HIVELY POTTERY (Continued) **S105744388**

Average Amount Possessed During The Year Code:	10
Description Of The Avg Qnty Code:	200-499
Maximum Amount Possessed During The Year Code:	10
Description Of The Max Qnty Code:	200-499
Applicable Unit Of Measure Code:	2
Description Of The Unit Of Measure:	GALLONS
Storage Container:	
Type Code:	A
Description:	ABOVEGROUND TANK
Pressure of Hazardous Substance Code:	1
Pressure Description:	NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1075
Chemical Abstract Service Identifier Number:	74986
First Hazardous Classification Code For Chemical:	2.1
Hazard Classification 1 Of The Chemical:	Flammable Gases
Second Hazardous Classification Code For Chemical:	6.3
Hazard Classification 2 Of The Chemical:	Acute Health Hazard
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Pure
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	PROPANE
Contains 112R :	No
Contains EHS:	No
Contains 313:	No
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	327112
NAICS Desc 1:	VITRS CHINA/FINE ERTHNWRE & OTHER POTTERY
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported

AST:

Employer File Number:	008545
Hazardous Substance:	PROPANE
Reporting Quantities:	200-499
Quantity Units:	GALLONS
Physical State:	GAS
Storage 1:	ABOVEGROUND TANK

N49 **AGRIWELD INC** **HSIS** **S105745471**
NNE **13000 S PACIFIC HWY W** **AST** **N/A**
> 1 **MONMOUTH, OR 97361**
15596 ft.

Site 2 of 2 in cluster N

Relative:
Lower

Actual:
217 ft.

HSIS:

Emergency Contact:	CRAIG POPE
Emergency Procedure:	OFFICE
Chemical Trade Name:	CARBON DIOXIDE
Manager Name:	CRAIG A POPE

AGRIWELD INC (Continued) **S105745471**

Mailing Address:	13000 S PACIFIC HWY W MONMOUTH, OR 97361
Mailing County:	POLK
Day Phone:	5038383960
Employee File #:	049512
No. of Employees:	12
Placard:	Yes
Business Type:	AGRICULTURAL EQUIPMENT MFG & REPAIR
Sprinkler System:	No
Business Phone:	5038383960
Department Or Division Of Company:	Not reported
Facility Has Written Emergency Plan:	Yes
Company Name:	AGRIWELD INC
Fire Dept Code:	0472
Physical State :	Not reported
Physical State Of The Substance:	GAS
Average Amount Possessed During The Year Code:	04
Description Of The Avg Qnty Code:	50-199
Maximum Amount Possessed During The Year Code:	04
Description Of The Max Qnty Code:	50-199
Applicable Unit Of Measure Code:	1
Description Of The Unit Of Measure:	POUNDS
Storage Container:	
Type Code:	L
Description:	CYLINDER
Pressure of Hazardous Substance Code:	2
Pressure Description:	GREATER THAN NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1013
Chemical Abstract Service Identifier Number:	124389
First Hazardous Classification Code For Chemical:	2.2
Hazard Classification 1 Of The Chemical:	NonFlammable Gases
Second Hazardous Classification Code For Chemical:	6.3
Hazard Classification 2 Of The Chemical:	Acute Health Hazard
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Pure
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	CARBON DIOXIDE
Contains 112R :	No
Contains EHS:	No
Contains 313:	No
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	333111
NAICS Desc 1:	FARM MACHINERY & EQP MFG
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	CRAIG POPE

AGRIWELD INC (Continued) **S105745471**

Emergency Procedure: OFFICE	
Chemical Trade Name:	ACETYLENE
Manager Name:	CRAIG A POPE
Mailing Address:	13000 S PACIFIC HWY W MONMOUTH, OR 97361
Mailing County:	POLK
Day Phone:	5038383960
Employee File #:	049512
No. of Employees:	12
Placard:	Yes
Business Type:	AGRICULTURAL EQUIPMENT MFG & REPAIR
Sprinkler System:	No
Business Phone:	5038383960
Department Or Division Of Company:	Not reported
Facility Has Written Emergency Plan:	Yes
Company Name:	AGRIWELD INC
Fire Dept Code:	0472
Physical State :	Not reported
Physical State Of The Substance:	GAS
Average Amount Possessed During The Year Code:	10
Description Of The Avg Qnty Code:	200-499
Maximum Amount Possessed During The Year Code:	10
Description Of The Max Qnty Code:	200-499
Applicable Unit Of Measure Code:	3
Description Of The Unit Of Measure:	CUBIC FEET
Storage Container:	
Type Code:	L
Description:	CYLINDER
Pressure of Hazardous Substance Code:	2
Pressure Description:	GREATER THAN NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1001
Chemical Abstract Service Identifier Number:	74862
First Hazardous Classification Code For Chemical:	2.1
Hazard Classification 1 Of The Chemical:	Flammable Gases
Second Hazardous Classification Code For Chemical:	6.3
Hazard Classification 2 Of The Chemical:	Acute Health Hazard
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Pure
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	ACETYLENE
Contains 112R :	No
Contains EHS:	No
Contains 313:	No
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	333111
NAICS Desc 1:	FARM MACHINERY & EQP MFG
NAICS Code 2:	Not reported

AGRIWELD INC (Continued) **S105745471**

NAICS Desc 2:	Not reported
Emergency Contact:	CRAIG POPE
Emergency Procedure: OFFICE	
Chemical Trade Name:	ARGON
Manager Name:	CRAIG A POPE
Mailing Address:	13000 S PACIFIC HWY W MONMOUTH, OR 97361
Mailing County:	POLK
Day Phone:	5038383960
Employee File #:	049512
No. of Employees:	12
Placard:	Yes
Business Type:	AGRICULTURAL EQUIPMENT MFG & REPAIR
Sprinkler System:	No
Business Phone:	5038383960
Department Or Division Of Company:	Not reported
Facility Has Written Emergency Plan:	Yes
Company Name:	AGRIWELD INC
Fire Dept Code:	0472
Physical State :	Not reported
Physical State Of The Substance:	GAS
Average Amount Possessed During The Year Code:	10
Description Of The Avg Qnty Code:	200-499
Maximum Amount Possessed During The Year Code:	10
Description Of The Max Qnty Code:	200-499
Applicable Unit Of Measure Code:	3
Description Of The Unit Of Measure:	CUBIC FEET
Storage Container:	
Type Code:	L
Description:	CYLINDER
Pressure of Hazardous Substance Code:	2
Pressure Description:	GREATER THAN NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1006
Chemical Abstract Service Identifier Number:	7440371
First Hazardous Classification Code For Chemical:	2.2
Hazard Classification 1 Of The Chemical:	NonFlammable Gases
Second Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 2 Of The Chemical:	Not reported
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Pure
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	ARGON
Contains 112R :	No
Contains EHS:	No
Contains 313:	No
Fertilizer:	No
Pesticide:	No

AGRIWELD INC (Continued) **S105745471**

NAICS Code 1:	333111
NAICS Desc 1:	FARM MACHINERY & EQP MFG
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	CRAIG POPE
Emergency Procedure: OFFICE	
Chemical Trade Name:	TRIMIX
Manager Name:	CRAIG A POPE
Mailing Address:	13000 S PACIFIC HWY W MONMOUTH, OR 97361
Mailing County:	POLK
Day Phone:	5038383960
Employee File #:	049512
No. of Employees:	12
Placard:	Yes
Business Type:	AGRICULTURAL EQUIPMENT MFG & REPAIR
Sprinkler System:	No
Business Phone:	5038383960
Department Or Division Of Company:	Not reported
Facility Has Written Emergency Plan:	Yes
Company Name:	AGRIWELD INC
Fire Dept Code:	0472
Physical State :	Not reported
Physical State Of The Substance:	GAS
Average Amount Possessed During The Year Code:	10
Description Of The Avg Qnty Code:	200-499
Maximum Amount Possessed During The Year Code:	10
Description Of The Max Qnty Code:	200-499
Applicable Unit Of Measure Code:	3
Description Of The Unit Of Measure:	CUBIC FEET
Storage Container:	
Type Code:	L
Description:	CYLINDER
Pressure of Hazardous Substance Code:	2
Pressure Description:	GREATER THAN NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1956
Chemical Abstract Service Identifier Number:	7440597
First Hazardous Classification Code For Chemical:	2.2
Hazard Classification 1 Of The Chemical:	NonFlammable Gases
Second Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 2 Of The Chemical:	Not reported
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Mixture
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	Not reported
EPA Pesticide Registration Number:	Not reported
Most Hazardous Ingridient:	HELIUM
Contains 112R :	Not reported
Contains EHS:	Not reported

AGRIWELD INC (Continued) **S105745471**

Contains 313:	Not reported
Fertilizer:	Not reported
Pesticide:	Not reported
NAICS Code 1:	333111
NAICS Desc 1:	FARM MACHINERY & EQP MFG
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
Emergency Contact:	CRAIG POPE
Emergency Procedure: OFFICE	
Chemical Trade Name:	ARGON 75%/CARBON DIOXIDE 25%
Manager Name:	CRAIG A POPE
Mailing Address:	13000 S PACIFIC HWY W MONMOUTH, OR 97361
Mailing County:	POLK
Day Phone:	5038383960
Employee File #:	049512
No. of Employees:	12
Placard:	Yes
Business Type:	AGRICULTURAL EQUIPMENT MFG & REPAIR
Sprinkler System:	No
Business Phone:	5038383960
Department Or Division Of Company:	Not reported
Facility Has Written Emergency Plan:	Yes
Company Name:	AGRIWELD INC
Fire Dept Code:	0472
Physical State :	Not reported
Physical State Of The Substance:	GAS
Average Amount Possessed During The Year Code:	20
Description Of The Avg Qnty Code:	1,000-4,999
Maximum Amount Possessed During The Year Code:	20
Description Of The Max Qnty Code:	1,000-4,999
Applicable Unit Of Measure Code:	3
Description Of The Unit Of Measure:	CUBIC FEET
Storage Container:	
Type Code:	L
Description:	CYLINDER
Pressure of Hazardous Substance Code:	2
Pressure Description:	GREATER THAN NORMAL PRESSURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	NORMAL TEMPERATURE
Days The Hazardous Substance Is On Site During Year:	365
Is The Substance Protected A Trade Secret:	No
United Nations/north America 4 Digit Classification Number:	1956
Chemical Abstract Service Identifier Number:	7440371
First Hazardous Classification Code For Chemical:	2.2
Hazard Classification 1 Of The Chemical:	NonFlammable Gases
Second Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 2 Of The Chemical:	Not reported
Third Hazardous Classification Code For Chemical:	Not reported
Hazard Classification 3 Of The Chemical:	Not reported
Is Substance Pure Or Mixture:	Mixture
Hazard Rank:	2
Chemical Is An Extremely Hazardous Substance (ehs):	Not reported
Does The Chemical Contain A 112r Chemical:	No
Chemical Is A Toxic 313 Chemical:	Not reported
EPA Pesticide Registration Number:	Not reported

AGRIWELD INC (Continued) **S105745471**

Most Hazardous Ingridient:	ARGON
Contains 112R :	Not reported
Contains EHS:	Not reported
Contains 313:	Not reported
Fertilizer:	No
Pesticide:	No
NAICS Code 1:	333111
NAICS Desc 1:	FARM MACHINERY & EQP MFG
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported

Click this hyperlink while viewing on your computer to access
5 additional OR HSIS record(s) in the EDR Site Report.

AST:

Employer File Number:	049512
Hazardous Substance:	STOVE OIL #2
Reporting Quantities:	200-499
Quantity Units:	GALLONS
Physical State:	LIQUID
Storage 1:	ABOVEGROUND TANK

Employer File Number:	049512
Hazardous Substance:	PROPANE
Reporting Quantities:	200-499
Quantity Units:	GALLONS
Physical State:	LIQUID
Storage 1:	ABOVEGROUND TANK

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50 South > 1 15607 ft. **DOOLEY, GEORGE J** **FINDS 1006868322**
8804 NW ARBORETUM RD **LUST 110014312706**
CORVALLIS, OR 97330

Relative: Lower

Actual: 315 ft.

FINDS:
Other Pertinent Environmental Activity Identified at Site:
OREGON-DEPARTMENT OF ENVIRONMENTAL QUALITY

LUST:

Facility ID:	2/1/5028
Region:	Western Region
Cleanup Start:	4-Jan-01
Closed Date:	9-Mar-01
Cleanup Complete:	9-Mar-01

City	EDR ID	Site Name	Site Address	Zip	Database(s)
ADAIR VILLAGE	1006863579	ADAIR VILLAGE	3RD AND VANDENBERG AVE	97330	FINDS
ADAIR VILLAGE	S107134256	ADAIR VILLAGE CITY OF	7305 NE ARNOLD AVE	97330	HSIS
ADAIR VILLAGE	1004580056	ADAIR VILLAGE, CITY OF	NEXT TO BENTON COUNTY PARK	97330	FINDS
ALBANY	1000318948	TRANS AG INC	RT 2 BOX 190	97321	RCRA-SQG, FINDS, CERC-NFRAP
ALBANY	S105523842		HWY 20 / N ALBANY RD	97321	OR HAZMAT
ALBANY	S105523851		3130 HWY 20 SE	97321	OR HAZMAT
ALBANY	S105840887		HWY 20 MP 7.03 BOWERS SLOUGH	97321	OR SPILLS, OR HAZMAT
ALBANY	S105857701	ALBANY WHSLE CONTAINER INC	35730 HWY 20 SE	97321	HSIS, AST
ALBANY	S106847911	QWEST WIRELESS	4562 HWY 20 NW	97321	HSIS
ALBANY	S105523824		HWY 20/INDEPEND HWY	97321	OR HAZMAT
ALBANY	1007736325	I - 5 WEST	33166 HWY 34 SE	97321	FINDS
ALBANY	S105552156	BP WEST COAST PRODUCTS LLC	33200 HWY 34 SE	97321	HSIS
ALBANY	S105613731	YOUNGER OIL CO.	HIGHWAY 34 / I-5	97321	SHWS - ECSI
ALBANY	S105857758	WILLAMETTE POWDER FAB INC	29891 HWY 34	97321	HSIS
ALBANY	S106228998	BUCKEYE ENGINE SERVICES	30821 HWY 34 SW	97321	HSIS
ALBANY	S106535061	CORNELLS I-5 GAS FOOD & AUTOCA	33166 HWY 34 SE	97321	HSIS, AST
ALBANY	S106847550	PETERSON MACHINERY CO	30815 HWY 34 SW	97321	HSIS
ALBANY	S106847908	VERIZON WIRELESS	29855 HWY 34 SW	97321	HSIS
ALBANY	U003839016	I-5 & HWY 34 CARDLOCK	33380 HIGHWAY 34 SE	97321	UST
ALBANY	S105074906	LARS FOREIGN CARS	122 E 4TH AVE	97321	HSIS
ALBANY	1003880270	ALBANY LANDFILL	52ND AVE-1 MI OFF PACIFIC HWY	97321	CERC-NFRAP
ALBANY	1001485724	ODOT ALBANY MAINT SEC	1955 E 7TH ST	97321	RCRA-SQG, FINDS
ALBANY	S106165158		HWY 99 E / 53RD AVE	97321	OR HAZMAT
ALBANY	1006849978	CHEVRON USA INC - 92485	527 ALBANY RD N	97321	FINDS
ALBANY	1001489570	ODOT ELLSWORTH ST BRIDGE ALBAN	ALBANY-CORVALLIS HWY MP 10.44E	97321	RCRA-SQG, FINDS
ALBANY	1006864148	BOISE CASCADE - MILLERSBURG	NE ARNOLD LN	97321	FINDS
ALBANY	1001217072	BLACK DOG SLOUGH TRANSFORMER DUMP SITE	BLACK DOG ROAD AJD TO WILLAMETTE RVR	97321	CERCLIS, FINDS
ALBANY	1005933781	WILLAMETTE INDUSTRIES - ALBANY PAPER MILL	PO BOX 339	97321	TSCA
ALBANY	S106165387		CALLAPOOLEA / 2ND	97321	OR HAZMAT
ALBANY	1008336228	SOUTH ALBANY HIGH SCHOOL	3705 COLUMBUS SE	97321	FINDS
ALBANY	1004770977	ARCO 5897	33200 SE HWY 34	97321	RCRA-SQG, FINDS
ALBANY	S107134382	B & V ENTERPRISES	29803 NE HWY 34	97321	HSIS
ALBANY	S106074529	SPRINT COMMUNICATIONS CO LP	1710 INDEPENDENCE WY NW	97321	HSIS
ALBANY	S105527085		100 INDEPENDENCE HWY	97321	OR HAZMAT
ALBANY	S106900105	NEXTEL WEST CORPORATION	1710 NW INDEPENDENCE HWY	97321	HSIS
ALBANY	1000409334	SYNTHETECH INC	1290 INDUSTRIAL WAY	97321	SHWS - ECSI, FINDS, HSIS, OR SPILLS, RCRA-LQG, TRIS, UST, AST, FTTS INSP
ALBANY	1006868167	SALEM CENTRE SOUTH	LIBERTY & CHEMEKETA	97321	FINDS
ALBANY	S106776939	CITY OF ALBANY - LYONS ST	333 LYONS STREET	97321	LUST
ALBANY	S106114883	FRY SUBSTATION - ALBANY	MIDWAY RD.	97321	SHWS - ECSI
ALBANY	1006867376	FRY SUBSTATION - ALBANY	SOUTHEAST OF ALBANY	97321	FINDS
ALBANY	S103995883	WILLAMETTE INDUSTRIES - ALBANY PAPERMILL	3251 OLD SALEM HWY	97321	HAZNET

City	EDR ID	Site Name	Site Address	Zip	Database(s)
ALBANY	1006857309	SOUTHERN PACIFIC RR - MILLERSBURG	OLD SALEM RD	97321	SHWS - ECSI, FINDS
ALBANY	1001485696	MARK THOMAS MOTORS INC	308 PACIFIC BLVD SW	97321	RCRA-SQG, FINDS
ALBANY	1004581156	U S FOREST INDUSTRIES INCORPORATED	2703 SOUTH PACIFIC BOULEVARD	97321	RCRA-SQG, FINDS
ALBANY	1004770605	M & M RENTALS	1010 E PACIFIC BLVD	97321	RCRA-SQG, FINDS
ALBANY	1004770966	ARCO 4379	3110 E PACIFIC BLVD	97321	RCRA-SQG, FINDS
ALBANY	1004771581	MARK THOMAS MOTORS INC	408 PACIFIC BLVD SW	97321	RCRA-SQG, FINDS
ALBANY	1005417874	WITHNELL NISSAN LINCOLN MERCUR	2505 E PACIFIC BLVD	97321	RCRA-SQG, FINDS
ALBANY	1008404962		1920 PACIFIC BLVD	97321	RCRA-SQG
ALBANY	S101952185		200 S PACIFIC	97321	OR HAZMAT
ALBANY	S105523820		PACIFIC BLVD / PERIWINKLE CRK	97321	OR HAZMAT
ALBANY	S105523853		PACIFIC / 24TH	97321	OR HAZMAT
ALBANY	S105526155		3232 PACIFIC BLVD	97321	OR HAZMAT
ALBANY	S105527832		1010 SW PACIFIC BLVD	97321	OR HAZMAT
ALBANY	S106534869	ARCO AM-PM	522 S PACIFIC BLVD	97321	HSIS
ALBANY	U003998984	ARCO FACILITY NO. 04379	3110 E PACIFIC BLVD	97321	UST
ALBANY	S106497127	KITSON-YU PROPERTY	1920 PACIFIC HWY (NE CORNER OF HWY	97321	SHWS - ECSI, VCS
ALBANY	S107134896	RIMROCK INVESTMENT PROPERTY	375 PACIFIC BLVD	97321	LUST
ALBANY	U003998994	WAGNER'S TOWING	252 E QUEEN AVE	97321	UST
ALBANY	S106980961	KEMPF PROPERTY	T11S, R3W, SEC 16	97321	SHWS - ECSI
ALBANY	S105012374		7600 NW RYALS LN	97321	OR HAZMAT
ALBANY	1007736190	SOUTH ALBANY 76	3135 SANTIAM HWY	97321	FINDS
ALBANY	S105005051	SCHUCKS AUTO PARTS	2105 SANTIAM AVE	97321	HSIS, AST
ALBANY	S106443033		2100 SE SANTIAM HWY	97321	OR HAZMAT
ALBANY	S105525954		SANTIAM/PACIFIC HWY	97321	OR HAZMAT
ALBANY	1000179215	USWCOM ALBANY CO	321 E SECOND ST	97321	RCRA-SQG, FINDS
ALBANY	S106772042	SELMET, INC.(OWNER:SELMET, INC.)	33992 S.E. SEVEN MILE LANE,	97321	UIC
ALBANY	A100279085	GOLF CLUB OF OREGON	905 NW SPRINGHILL DR	97321	AST
ALBANY	S107134305	GOLF CLUB OF OREGON	905 NW SPRINGHILL DR	97321	HSIS
CORVALLIS	S105523863		HWY 20 @ H P CO GATE	97330	OR HAZMAT
CORVALLIS	S105523886		HWY 20 MP 1.5	97330	OR HAZMAT
CORVALLIS	S107134240	HAM-MOCK & ASSOCIATES	5474A HWY 20	97330	HSIS
CORVALLIS	S103705386	D & B BEAR SERVICE	NW 2ND ST	97330	HSIS, AST
CORVALLIS	S105523899		HWY 344 PEORIA RD	97330	OR HAZMAT
CORVALLIS	S106165128		650 NW 4TH ST / HWY 99W	97330	OR HAZMAT
CORVALLIS	1007149378	LEWISBURG AREAWIDE GASOLINE RELEASE	HWY 99W & LEWISBURG RD.	97330	SHWS - ECSI, FINDS
CORVALLIS	S104060360	OAKCRAFT MFG INC	7629 NE BIRCH LN	97330	HSIS, AST
CORVALLIS	S105523776		4800 BLK NE HWY 20	97330	OR HAZMAT
CORVALLIS	1003880261	BRAND S CORP	BOX L CORVALLIS DR	97330	CERC-NFRAP
CORVALLIS	S105075287	MORSE BROTHERS INC	COFFIN BUTTE RD	97330	HSIS
CORVALLIS	S105526810		COLORADO LAKE DR / HWY 34	97330	OR HAZMAT
CORVALLIS	1006866956	OWENS FARM	3525 NW HIGHWAY 99	97330	FINDS, LUST
CORVALLIS	S105525941		4250 NE HWY 20	97330	OR HAZMAT
CORVALLIS	S105745528	BEAVER PLUMBING & HEATING INC	5260 NW HWY 99 W	97330	HSIS
CORVALLIS	S105856097	TRILLIUM FAMILY SERVICES	4455 NE HWY 20	97330	LUST
CORVALLIS	S106426510	GOLF CITY PAR 3	2115 NE HWY 20	97330	HSIS
CORVALLIS	S106847906	VERIZON WIRELESS	1521 NE HWY 20	97330	HSIS, AST
CORVALLIS	1000378984	BOISE CASCADE CORP CORVALLIS	3/4 MILE CAMP ADAIR RD FROM HW	97330	RCRA-SQG

City	EDR ID	Site Name	Site Address	Zip	Database(s)
CORVALLIS	1005434413	OREGON DEPARTMENT OF FISH & WILDLIFE	8 MI N OF CY AT ADAIR VILLAGE	97330	SSTS
CORVALLIS	1004772085	USWCOM ADAIR CO (340)	NIGHTINGALE & LAUREL DR	97330	RCRA-SQG
CORVALLIS	1003880294	COFFIN BUTTE REGIONAL LDFL	OFF HWY 99 W 10 MI N CORVALLIS	97330	RCRA-SQG, FINDS, CERC-NFRAP
CORVALLIS	S106165181		RYLS LN 3/4 MI W IND HWY	97330	OR HAZMAT
CORVALLIS	S105526307		4TH / WASHINGTON	97330	OR HAZMAT
JEFFERSON	S105523025		1 MILE W ON HWY 99E	97321	OR HAZMAT
MILLERSBURG	S105613614	BOISE CASCADE - MILLERSBURG	ARNOLD LN NE	97321	SHWS - ECSI
MILLERSBURG	S105613754	BLACK DOG SLOUGH	BLACK DOG RD. - 10S/4W/S11 / 14	97321	SHWS - ECSI, OR CRL
MILLERSBURG	U003998986	BOISE CASCADE PLYWOOD PLANT	OLD SALEM RD - OLD PACIFIC HWY	97321	UST
MONMOUTH	S105523807		11000 BLOCK AIRLIE RD	97361	OR HAZMAT
MONMOUTH	U003999038	SCREEN PLANT	29910 CAMP ADAIR RD	97361	UST
MONMOUTH	S105527378		437 E CLAY (POST OFFICE)	97361	OR HAZMAT
MONMOUTH	S105523808		1/8 MILE E OF HWY 99W ON SUVER RD	97361	OR HAZMAT
MONMOUTH	U003999037	CONOCOPHILLIPS COMPANY - 253975	112 N PACIFIC HWY	97361	UST
MONMOUTH	U003999036	CHEVRON USA INC #99035	113 NORTH PACIFIC STREET	97361	UST
MONMOUTH	S103839792	CHEVRON #9035	113 N PACIFIC STREET	97361	LUST
MONMOUTH	S103839795	UNOCAL #3975	112 N PACIFIC HWY	97361	LUST
MONMOUTH	S104061506	PACIFIC HWY AUTO CARE LLC	112 N PACIFIC HWY	97361	HSIS
MONMOUTH	S105746323	R & D CONSTRUCTION INC	13005 S PACIFIC HWY BLDG B	97361	HSIS, AST
MONMOUTH	S107134250	DAVISON AUTO PARTS INC	373 N PACIFIC HWY	97361	HSIS
MONMOUTH	U000436755	BOISE CASCADE REGION OFFICE	450 N PACIFIC HWY	97361	UST
MONMOUTH	S105525436		PARKER RD / HWY 99	97361	OR HAZMAT

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that this EDR report meets or exceeds the 90-day updating requirement of the ASTM standard.

FEDERAL RECORDS

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 07/01/05
Date Data Arrived at EDR: 11/02/05
Date Made Active in Reports: 12/07/05
Number of Days to Update: 35

Source: EPA
Telephone: N/A
Last EDR Contact: 11/02/05
Next Scheduled EDR Contact: 01/30/06
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 8
Telephone: 303-312-6774

EPA Region 4
Telephone 404-562-8033

Proposed NPL: Proposed National Priority List Sites

Date of Government Version: 04/27/05
Date Data Arrived at EDR: 11/02/05
Date Made Active in Reports: 12/07/05
Number of Days to Update: 35

Source: EPA
Telephone: N/A
Last EDR Contact: 11/02/05
Next Scheduled EDR Contact: 01/30/06
Data Release Frequency: Quarterly

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 07/01/05
Date Data Arrived at EDR: 11/02/05
Date Made Active in Reports: 12/07/05
Number of Days to Update: 35

Source: EPA
Telephone: N/A
Last EDR Contact: 11/02/05
Next Scheduled EDR Contact: 01/30/06
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/91
Date Data Arrived at EDR: 02/02/94
Date Made Active in Reports: 03/30/94
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/22/05
Next Scheduled EDR Contact: 11/21/05
Data Release Frequency: No Update Planned

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 09/19/05
Date Data Arrived at EDR: 10/21/05
Date Made Active in Reports: 10/27/05
Number of Days to Update: 6

Source: EPA
Telephone: 703-413-0223
Last EDR Contact: 10/21/05
Next Scheduled EDR Contact: 12/19/05
Data Release Frequency: Quarterly

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

Date of Government Version: 08/22/05
Date Data Arrived at EDR: 09/20/05
Date Made Active in Reports: 10/27/05
Number of Days to Update: 37

Source: EPA
Telephone: 703-413-0223
Last EDR Contact: 09/20/05
Next Scheduled EDR Contact: 12/19/05
Data Release Frequency: Quarterly

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 10/13/05
Date Data Arrived at EDR: 10/27/05
Date Made Active in Reports: 12/07/05
Number of Days to Update: 41

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 09/06/05
Next Scheduled EDR Contact: 01/16/06
Data Release Frequency: Quarterly

RCRA: Resource Conservation and Recovery Act Information

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS). The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 10/14/05
Date Data Arrived at EDR: 10/27/05
Date Made Active in Reports: 12/07/05
Number of Days to Update: 41

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 10/27/05
Next Scheduled EDR Contact: 12/26/05
Data Release Frequency: Quarterly

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/04
Date Data Arrived at EDR: 01/27/05
Date Made Active in Reports: 03/24/05
Number of Days to Update: 56

Source: National Response Center, United States Coast Guard
Telephone: 202-260-2342
Last EDR Contact: 01/27/05
Next Scheduled EDR Contact: 10/24/05
Data Release Frequency: Annually

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/27/05
Date Data Arrived at EDR: 10/18/05
Date Made Active in Reports: 12/07/05
Number of Days to Update: 50

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 10/18/05
Next Scheduled EDR Contact: 01/16/06
Data Release Frequency: Annually

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 08/02/05
Date Data Arrived at EDR: 08/12/05
Date Made Active in Reports: 10/06/05
Number of Days to Update: 55

Source: Environmental Protection Agency
Telephone: 703-603-8867
Last EDR Contact: 07/05/05
Next Scheduled EDR Contact: 01/02/06
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 01/10/05
Date Data Arrived at EDR: 02/11/05
Date Made Active in Reports: 04/06/05
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 703-603-8867
Last EDR Contact: 01/03/05
Next Scheduled EDR Contact: 10/03/05
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 10/01/03
Date Data Arrived at EDR: 11/12/03
Date Made Active in Reports: 11/21/03
Number of Days to Update: 9

Source: USGS
Telephone: 703-692-8801
Last EDR Contact: 08/09/05
Next Scheduled EDR Contact: 11/07/05
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/04
Date Data Arrived at EDR: 06/29/05
Date Made Active in Reports: 08/08/05
Number of Days to Update: 40

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 06/29/05
Next Scheduled EDR Contact: 10/03/05
Data Release Frequency: Varies

US BROWNFIELDS: A Listing of Brownfields Sites

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 08/18/05
Date Data Arrived at EDR: 08/18/05
Date Made Active in Reports: 10/06/05
Number of Days to Update: 49

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 08/11/05
Next Scheduled EDR Contact: 12/12/05
Data Release Frequency: Semi-Annually

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/14/04
Date Data Arrived at EDR: 02/15/05
Date Made Active in Reports: 04/25/05
Number of Days to Update: 69

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 01/27/05
Next Scheduled EDR Contact: 10/24/05
Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 06/08/05
Date Data Arrived at EDR: 10/20/05
Date Made Active in Reports: 12/07/05
Number of Days to Update: 48

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 10/06/05
Next Scheduled EDR Contact: 01/02/06
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized. In 1978, 24 inactive uranium mill tailings sites in Oregon, Idaho, Wyoming, Utah, Colorado, New Mexico, Texas, North Dakota, South Dakota, Pennsylvania, and on Navajo and Hopi tribal lands, were targeted for cleanup by the Department of Energy.

Date of Government Version: 12/29/04
Date Data Arrived at EDR: 01/07/05
Date Made Active in Reports: 03/14/05
Number of Days to Update: 66

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 12/21/04
Next Scheduled EDR Contact: 12/19/05
Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/85
Date Data Arrived at EDR: 08/09/04
Date Made Active in Reports: 09/17/04
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 05/23/95
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/03
Date Data Arrived at EDR: 07/13/05
Date Made Active in Reports: 08/17/05
Number of Days to Update: 35

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 07/13/05
Next Scheduled EDR Contact: 12/19/05
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/02
Date Data Arrived at EDR: 04/27/04
Date Made Active in Reports: 05/21/04
Number of Days to Update: 24

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 07/18/05
Next Scheduled EDR Contact: 10/17/05
Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 07/15/05
Date Data Arrived at EDR: 07/25/05
Date Made Active in Reports: 08/22/05
Number of Days to Update: 28

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 06/20/05
Next Scheduled EDR Contact: 12/19/05
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

Date of Government Version: 07/15/05
Date Data Arrived at EDR: 07/25/05
Date Made Active in Reports: 08/22/05
Number of Days to Update: 28

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 06/20/05
Next Scheduled EDR Contact: 12/19/05
Data Release Frequency: Quarterly

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/03
Date Data Arrived at EDR: 01/03/05
Date Made Active in Reports: 01/25/05
Number of Days to Update: 22

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 11/29/04
Next Scheduled EDR Contact: 10/17/05
Data Release Frequency: Annually

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 08/30/05
Date Data Arrived at EDR: 09/13/05
Date Made Active in Reports: 10/27/05
Number of Days to Update: 44

Source: EPA
Telephone: 202-564-3887
Last EDR Contact: 09/13/05
Next Scheduled EDR Contact: 11/07/05
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 07/14/05
Date Data Arrived at EDR: 07/22/05
Date Made Active in Reports: 08/22/05
Number of Days to Update: 31

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 07/05/05
Next Scheduled EDR Contact: 10/03/05
Data Release Frequency: Quarterly

MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/12/05
Date Data Arrived at EDR: 09/27/05
Date Made Active in Reports: 11/14/05
Number of Days to Update: 48

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 09/27/05
Next Scheduled EDR Contact: 12/26/05
Data Release Frequency: Semi-Annually

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 09/29/05
Date Data Arrived at EDR: 10/04/05
Date Made Active in Reports: 11/14/05
Number of Days to Update: 41

Source: EPA
Telephone: N/A
Last EDR Contact: 08/29/05
Next Scheduled EDR Contact: 01/02/06
Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System
RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/95
Date Data Arrived at EDR: 07/03/95
Date Made Active in Reports: 08/07/95
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 09/06/05
Next Scheduled EDR Contact: 12/05/05
Data Release Frequency: No Update Planned

BRS: Biennial Reporting System
The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/03
Date Data Arrived at EDR: 06/17/05
Date Made Active in Reports: 08/04/05
Number of Days to Update: 48

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 06/17/05
Next Scheduled EDR Contact: 12/12/05
Data Release Frequency: Biennially

STATE AND LOCAL RECORDS

SHWS - ECSI: Environmental Cleanup Site Information System
Sites that are or may be contaminated and may require cleanup.

Date of Government Version: 08/01/05
Date Data Arrived at EDR: 08/16/05
Date Made Active in Reports: 09/14/05
Number of Days to Update: 29

Source: Department of Environmental Quality
Telephone: 503-229-6629
Last EDR Contact: 08/16/05
Next Scheduled EDR Contact: 11/14/05
Data Release Frequency: Quarterly

CRL: Confirmed Release List and Inventory
All facilities with a confirmed release.

Date of Government Version: 09/13/05
Date Data Arrived at EDR: 09/13/05
Date Made Active in Reports: 10/26/05
Number of Days to Update: 43

Source: Department of Environmental Quality
Telephone: 503-229-6170
Last EDR Contact: 09/13/05
Next Scheduled EDR Contact: 12/12/05
Data Release Frequency: Quarterly

SWF/LF: Solid Waste Facilities List
Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 10/04/05
Date Data Arrived at EDR: 10/04/05
Date Made Active in Reports: 10/26/05
Number of Days to Update: 22

Source: Department of Environmental Quality
Telephone: 503-229-6299
Last EDR Contact: 10/03/05
Next Scheduled EDR Contact: 12/19/05
Data Release Frequency: Semi-Annually

UIC: Underground Injection Control Program Database
DEQ's Underground Injection Control Program is authorized by the Environmental Protection Agency (EPA) to regulate all underground injection in Oregon to protect groundwater resources.

Date of Government Version: 10/24/05
Date Data Arrived at EDR: 10/24/05
Date Made Active in Reports: 11/08/05
Number of Days to Update: 15

Source: Department of Environmental Quality
Telephone: 503-229-5945
Last EDR Contact: 10/24/05
Next Scheduled EDR Contact: 01/23/06
Data Release Frequency: Varies

HIST LF: Old Closed SW Disposal Sites
A list of solid waste disposal sites that have been closed for a long while.

Date of Government Version: 04/01/00
Date Data Arrived at EDR: 07/08/03
Date Made Active in Reports: 07/18/03
Number of Days to Update: 10

Source: Department of Environmental Quality
Telephone: 503-229-5409
Last EDR Contact: 07/08/03
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

LUST: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 07/14/05
Date Data Arrived at EDR: 09/13/05
Date Made Active in Reports: 10/26/05
Number of Days to Update: 43

Source: Department of Environmental Quality
Telephone: 503-229-5790
Last EDR Contact: 09/13/05
Next Scheduled EDR Contact: 12/12/05
Data Release Frequency: Quarterly

AOC COL: Columbia Slough
Columbia Slough waterway boundaries.

Date of Government Version: N/A
Date Data Arrived at EDR: 10/03/02
Date Made Active in Reports: 10/22/02
Number of Days to Update: 19

Source: City of Portland Environmental Services
Telephone: 503-823-5310
Last EDR Contact: 08/26/02
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST: Underground Storage Tank Database
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 07/21/05
Date Data Arrived at EDR: 09/13/05
Date Made Active in Reports: 10/07/05
Number of Days to Update: 24

Source: Department of Environmental Quality
Telephone: 503-229-5815
Last EDR Contact: 09/13/05
Next Scheduled EDR Contact: 12/12/05
Data Release Frequency: Quarterly

AOC MU: East Multnomah County Area
Approximate extent of TSA VOC plume February , 2002

Date of Government Version: N/A
Date Data Arrived at EDR: 10/07/02
Date Made Active in Reports: 10/22/02
Number of Days to Update: 15

Source: City of Portland Environmental Services
Telephone: 503-823-5310
Last EDR Contact: 08/26/02
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

AST: Aboveground Storage Tanks
Aboveground storage tank locations reported to the Office of State Fire Marshal.

Date of Government Version: 08/01/05
Date Data Arrived at EDR: 09/14/05
Date Made Active in Reports: 10/07/05
Number of Days to Update: 23

Source: Office of State Fire Marshal
Telephone: 503-378-3473
Last EDR Contact: 08/29/05
Next Scheduled EDR Contact: 11/28/05
Data Release Frequency: Semi-Annually

SPILLS: Spill Data

Date of Government Version: 09/13/05
Date Data Arrived at EDR: 09/14/05
Date Made Active in Reports: 11/08/05
Number of Days to Update: 55

Source: Department of Environmental Quality
Telephone: 503-229-5731
Last EDR Contact: 09/12/05
Next Scheduled EDR Contact: 12/12/05
Data Release Frequency: Semi-Annually

HAZMAT: Hazmat/Incidents

Hazardous material incidents reported to the State Fire Marshal by emergency responders. The hazardous material may or may not have been released.

Date of Government Version: 08/31/04
Date Data Arrived at EDR: 10/12/04
Date Made Active in Reports: 11/05/04
Number of Days to Update: 24

Source: State Fire Marshal's Office
Telephone: 503-373-1540
Last EDR Contact: 08/22/05
Next Scheduled EDR Contact: 11/21/05
Data Release Frequency: Semi-Annually

ENG CONTROLS: Engineering Controls Recorded at ESCI Sites

Engineering controls are physical measures selected or approved by the Director for the purpose of preventing or minimizing exposure to hazardous substances. Engineering controls may include, but are not limited to, fencing, capping, horizontal or vertical barriers, hydraulic controls, and alternative water supplies.

Date of Government Version: 08/01/05
Date Data Arrived at EDR: 08/16/05
Date Made Active in Reports: 09/14/05
Number of Days to Update: 29

Source: Department of Environmental Quality
Telephone: 503-229-5193
Last EDR Contact: 08/16/05
Next Scheduled EDR Contact: 11/14/05
Data Release Frequency: Quarterly

INST CONTROL: Institutional Controls Recorded at ESCI Sites

An institutional control is a legal or administrative tool or action taken to reduce the potential for exposure to hazardous substances. Institutional controls may include, but are not limited to, use restrictions, environmental monitoring requirements, and site access and security measures.

Date of Government Version: 08/01/05
Date Data Arrived at EDR: 08/16/05
Date Made Active in Reports: 09/14/05
Number of Days to Update: 29

Source: Department of Environmental Quality
Telephone: 503-229-5193
Last EDR Contact: 08/16/05
Next Scheduled EDR Contact: 11/14/05
Data Release Frequency: Quarterly

VCS: Voluntary Cleanup Program Sites

Responsible parties have entered into an agreement with DEQ to voluntarily address contamination associated with their property.

Date of Government Version: 08/09/05
Date Data Arrived at EDR: 08/10/05
Date Made Active in Reports: 09/08/05
Number of Days to Update: 29

Source: DEQ
Telephone: 503-229-5256
Last EDR Contact: 08/01/05
Next Scheduled EDR Contact: 10/31/05
Data Release Frequency: Quarterly

DRYCLEANERS: Drycleaning Facilities

A listing of registered drycleaning facilities in Oregon.

Date of Government Version: 09/15/05
Date Data Arrived at EDR: 09/16/05
Date Made Active in Reports: 10/26/05
Number of Days to Update: 40

Source: Department of Environmental Quality
Telephone: 503-229-6783
Last EDR Contact: 09/12/05
Next Scheduled EDR Contact: 11/28/05
Data Release Frequency: Varies

BROWNFIELDS: Brownfields Projects
Brownfields investigations and/or cleanups that have been conducted in Oregon.

Date of Government Version: 09/13/05
Date Data Arrived at EDR: 09/14/05
Date Made Active in Reports: 10/26/05
Number of Days to Update: 42

Source: Department of Environmental Quality
Telephone: 503-229-6801
Last EDR Contact: 09/14/05
Next Scheduled EDR Contact: 12/12/05
Data Release Frequency: Semi-Annually

CDL: Uninhabitable Drug Lab Properties
The properties listed on these county pages have been declared by a law enforcement agency to be unfit for use due to meth lab and/or storage activities. The properties are considered uninhabitable until cleaned up by a state certified decontamination contractor and a certificate of fitness is issued by the Oregon Health Division.

Date of Government Version: 09/27/05
Date Data Arrived at EDR: 10/11/05
Date Made Active in Reports: 10/26/05
Number of Days to Update: 15

Source: Department of Consumer & Business Services
Telephone: 503-378-4133
Last EDR Contact: 09/29/05
Next Scheduled EDR Contact: 12/12/05
Data Release Frequency: Varies

HSIS: Hazardous Substance Information Survey
Companies in Oregon submitting the Hazardous Substance Information Survey and either reporting or not reporting hazardous substances.

Date of Government Version: 08/01/05
Date Data Arrived at EDR: 09/14/05
Date Made Active in Reports: 10/26/05
Number of Days to Update: 42

Source: State Fire Marshal's Office
Telephone: 503-373-1540
Last EDR Contact: 08/29/05
Next Scheduled EDR Contact: 11/28/05
Data Release Frequency: Semi-Annually

TRIBAL RECORDS

INDIAN RESERV: Indian Reservations
This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 10/01/03
Date Data Arrived at EDR: 11/12/03
Date Made Active in Reports: 11/21/03
Number of Days to Update: 9

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 08/09/05
Next Scheduled EDR Contact: 11/07/05
Data Release Frequency: Semi-Annually

INDIAN LUST: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 09/07/05
Date Data Arrived at EDR: 09/08/05
Date Made Active in Reports: 10/26/05
Number of Days to Update: 48

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 08/25/05
Next Scheduled EDR Contact: 11/21/05
Data Release Frequency: Varies

INDIAN UST: Underground Storage Tanks on Indian Land

Date of Government Version: 09/07/05
Date Data Arrived at EDR: 09/08/05
Date Made Active in Reports: 10/26/05
Number of Days to Update: 48

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 08/25/05
Next Scheduled EDR Contact: 11/21/05
Data Release Frequency: Varies

EDR PROPRIETARY HISTORICAL DATABASES

Former Manufactured Gas (Coal Gas) Sites: The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. ©Copyright 1993 Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

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OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data
Source: PennWell Corporation
Telephone: (800) 823-6277
This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Child Care Listings
Source: Employment Department
Telephone: 503-947-1420

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

CAMP ADAIR - SOUTH
CAMP ADAIR - SOUTH
MONMOUTH, OR 97361

TARGET PROPERTY COORDINATES

Elevation: 615 ft. above sea level

EDR's GeoCheck Physical Setting Source Addendum has been developed to assist the environmental professional with the collection of physical setting source information in accordance with EPA's Standards and Practices for All Appropriate Inquiries (AAI) and ASTM E 1527-05, Section 8.2.3.

Section 8.2.3 requires that a current USGS 7.5 Minute Topographic Map (or equivalent, such as the USGS Digital Elevation Model) be reviewed. It also requires that one or more additional physical setting sources be sought when (1) conditions have been identified in which hazardous substances or petroleum products are likely to migrate to or from the property, and (2) more information than is provided in the current USGS 7.5 Minute Topographic Map (or equivalent) is generally obtained, pursuant to local good commercial or customary practice, to assess the impact of migration of recognized environmental conditions in connection with the property. Such additional physical setting sources generally include information about the topographic, hydrologic, hydrogeologic, and geologic characteristics of a site, and wells in the area.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata. EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

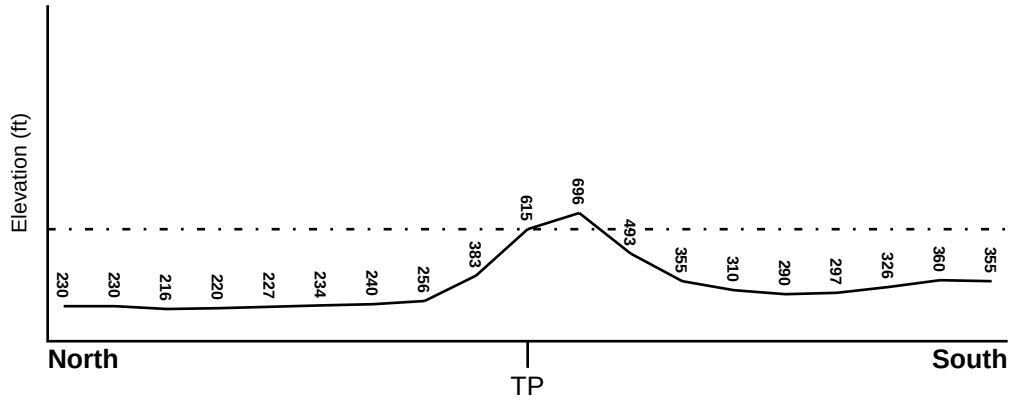
TOPOGRAPHIC INFORMATION

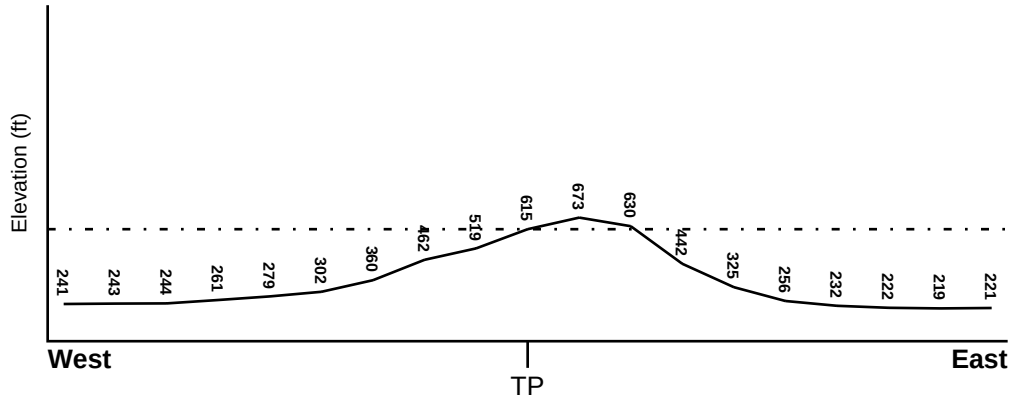
Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

USGS Topographic Map:	44123-F2 LEWISBURG, OR
General Topographic Gradient:	General NW
Source:	USGS 7.5 min quad index

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES





Target Property Elevation: 615 ft.

0 1/2 1 Miles

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County	FEMA Flood Electronic Data
BENTON, OR	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property:	4100080050C
Additional Panels in search area:	41053C0225C 41053C0200C 4100000000A

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
LEWISBURG	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name:	BASHAW
Soil Surface Texture:	silty clay
Hydrologic Group:	Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.
Soil Drainage Class:	Poorly. Soils may have a saturated zone, a layer of low hydraulic conductivity, or seepage. Depth to water table is less than 1 foot.

Hydric Status: Soil meets the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel:	MODERATE
Depth to Bedrock Min:	> 60 inches
Depth to Bedrock Max:	> 60 inches

Soil Layer Information							
	Boundary			Classification			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)
1	0 inches	14 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 0.06 Min: 0.00	Max: 7.30 Min: 5.60
2	14 inches	48 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 0.06 Min: 0.00	Max: 7.30 Min: 5.60
3	48 inches	60 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 0.06 Min: 0.00	Max: 7.30 Min: 6.10

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: silty clay loam
clay

Surficial Soil Types: silty clay loam
clay

Shallow Soil Types: No Other Soil Types

Deeper Soil Types: clay
silty clay loam
gravelly - clay

LOCAL / REGIONAL WATER AGENCY RECORDS

According to ASTM E 1527-05, Section 8.2.2, "To enhance and supplement the standard environmental record sources in 8.2.1, local records and/or additional state or tribal records shall be checked when, in the judgment of the environmental professional, such additional records (1) are reasonably ascertainable, (2) are sufficiently useful, accurate, and complete in light of the objective of the records review (see 8.1.1), and (3) are generally obtained, pursuant to local good commercial or customary practice, in initial environmental site assessments in the type of commercial real estate transaction involved." One of the records sources listed in 8.2.2 is water well information. Water well information can be used to assist the environmental professional in assessing sources that may impact groundwater flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	USGS3253938	1/4 - 1/2 Mile WNW
6	USGS3253922	1/2 - 1 Mile WSW
7	USGS3253913	1/2 - 1 Mile South
8	USGS3253952	1/2 - 1 Mile NE
9	USGS3253957	1/2 - 1 Mile NE
10	USGS3253962	1/2 - 1 Mile North
11	USGS3253904	1/2 - 1 Mile South
12	USGS3253903	1/2 - 1 Mile South

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

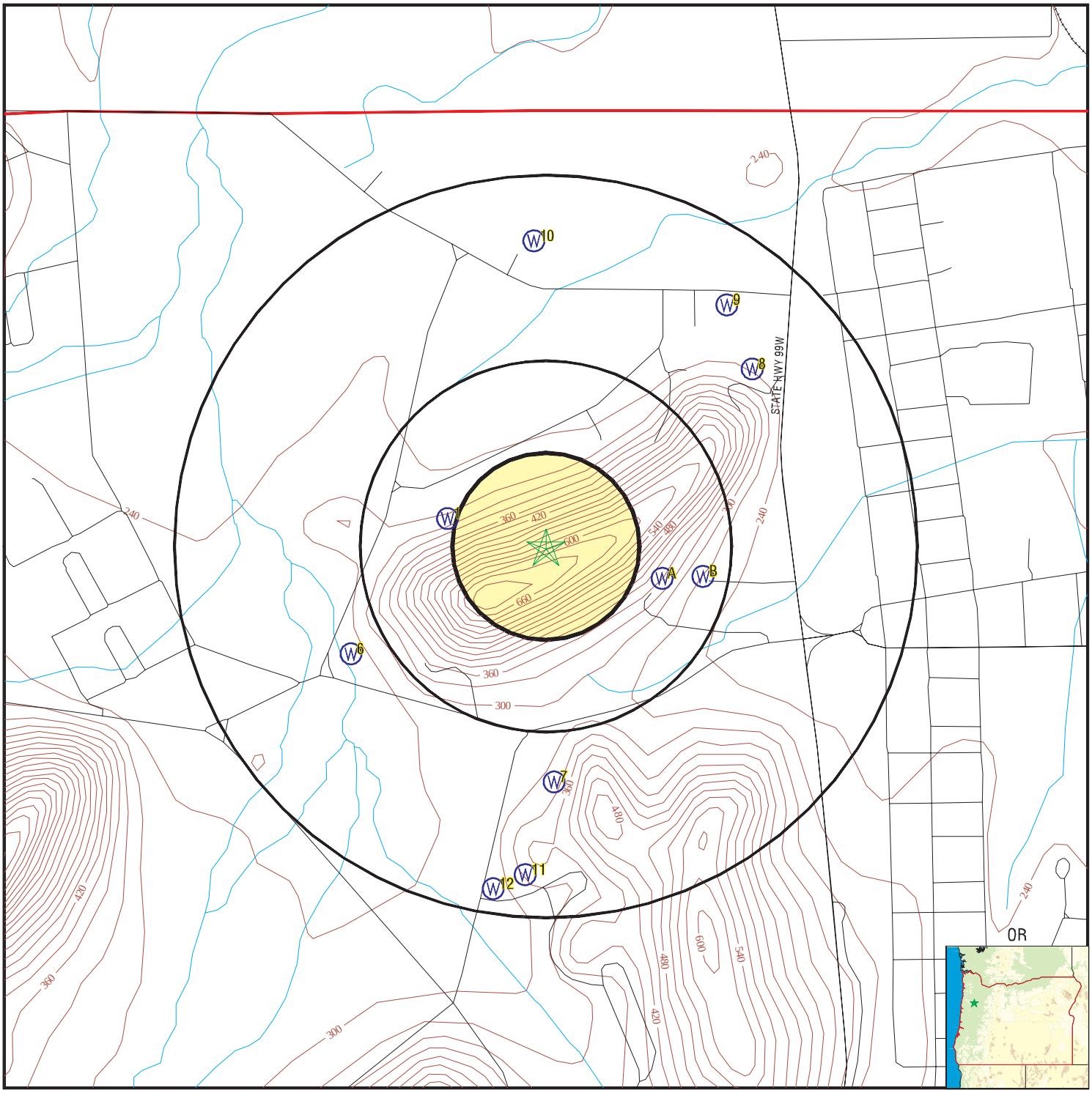
MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A2	OR00008435	1/4 - 1/2 Mile ESE
A3	OR00008434	1/4 - 1/2 Mile ESE
B4	OR00008433	1/4 - 1/2 Mile East
B5	OR00008432	1/4 - 1/2 Mile East

PHYSICAL SETTING SOURCE MAP - 1575900.2s



County Boundary
Major Roads
Contour Lines
Earthquake epicenter, Richter 5 or greater
Water Wells
Public Water Supply Wells
Cluster of Multiple Icons

0 1/4 1/2 1 Miles

Groundwater Flow Direction
Indeterminate Groundwater Flow at Location
Groundwater Flow Varies at Location

N

TARGET PROPERTY:	Camp Adair - South	CUSTOMER:	Shaw Env. and Infrastructure
ADDRESS:	Camp Adair - South	CONTACT:	Jennifer Lillis
CITY/STATE:	Monmouth OR	INQUIRY #:	1575900.2s
ZIP:	97361	DATE:	December 16, 2005 9:56 am

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Map ID Direction Distance Elevation	Database	EDR ID Number
1 **WNW** **1/4 - 1/2 Mile** **Lower**	**FED USGS**	**USGS3253938**

Agency cd:	USGS	Site no:	444216123142101
Site name:	10S/05W-13ACA		
Latitude:	444216		
Longitude:	1231421	Dec lat:	44.70428705
Dec lon:	-123.24037647	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	003
Country:	US	Land net:	SWSWNES13T10SR05WW
Location map:	LEWISBURG	Map scale:	62500
Altitude:	280.00	Altitude method:	M
Altitude accuracy:	10.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Hillside (slope)		
Site type:	Ground-water other than Spring	Date construction:	19700212
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	270	Hole depth:	270
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1970-02-12	Ground water data end date:	1970-02-12
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1970-02-12	72.00	

A2 **ESE** **1/4 - 1/2 Mile** **Lower**	**OR WELLS**	**OR00008435**

Well ID:	Not Reported		
Application Number:	G 416	Certificate Number:	28641
Permit Number:	G 463	Point of Division Num.:	2
Map Name:	10.00S 4.00W	Section:	18
Source:	Not Reported	Use:	Irrigation
List:	0	Station:	0
X Coordinate:	0	Y Coordinate:	0
Latitude:	0	Longitude:	0
Aquifer Type:	Not Reported	Data Source:	Not Reported
Water Use:	Not Reported	Altitude:	0
Well Type:	Not Reported	Depth:	0
Description:	Not Reported	County Code:	Not Reported
Water Level:	0		
Well:	0		

A3
ESE **OR WELLS** **OR00008434**
1/4 - 1/2 Mile
Lower

Well ID:	Not Reported		
Application Number:	G 416	Certificate Number:	28641
Permit Number:	G 463	Point of Division Num.:	2
Map Name:	10.00S 4.00W	Section:	18
Source:	Not Reported	Use:	Irrigation
List:	0	Station:	0
X Coordinate:	0	Y Coordinate:	0
Latitude:	0	Longitude:	0
Aquifer Type:	Not Reported	Data Source:	Not Reported
Water Use:	Not Reported	Altitude:	0
Well Type:	Not Reported	Depth:	0
Description:	Not Reported	County Code:	Not Reported
Water Level:	0		
Well:	0		

B4
East **OR WELLS** **OR00008433**
1/4 - 1/2 Mile
Lower

Well ID:	Not Reported		
Application Number:	G 416	Certificate Number:	28641
Permit Number:	G 463	Point of Division Num.:	1
Map Name:	10.00S 4.00W	Section:	18
Source:	Not Reported	Use:	Irrigation
List:	0	Station:	0
X Coordinate:	0	Y Coordinate:	0
Latitude:	0	Longitude:	0
Aquifer Type:	Not Reported	Data Source:	Not Reported
Water Use:	Not Reported	Altitude:	0
Well Type:	Not Reported	Depth:	0
Description:	Not Reported	County Code:	Not Reported
Water Level:	0		
Well:	0		

Map ID Direction Distance Elevation	Database	EDR ID Number
B5 **East** **1/4 - 1/2 Mile** **Lower**	**OR WELLS**	**OR00008432**

Well ID:	Not Reported		
Application Number:	G 416	Certificate Number:	28641
Permit Number:	G 463	Point of Division Num.:	1
Map Name:	10.00S 4.00W	Section:	18
Source:	Not Reported	Use:	Irrigation
List:	0	Station:	0
X Coordinate:	0	Y Coordinate:	0
Latitude:	0	Longitude:	0
Aquifer Type:	Not Reported	Data Source:	Not Reported
Water Use:	Not Reported	Altitude:	0
Well Type:	Not Reported	Depth:	0
Description:	Not Reported	County Code:	Not Reported
Water Level:	0		
Well:	0		

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6 **WSW** **1/2 - 1 Mile** **Lower**	**FED USGS**	**USGS3253922**

Agency cd:	USGS	Site no:	444157123144001
Site name:	10S/05W-13CAD		
Latitude:	444157		
Longitude:	1231440	Dec lat:	44.69900928
Dec lon:	-123.24565437	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	003
Country:	US	Land net:	SENESWS13T10SR05WW
Location map:	LEWISBURG	Map scale:	24000
Altitude:	249.00	Altitude method:	M
Altitude accuracy:	5.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Valley flat		
Site type:	Ground-water other than Spring	Date construction:	19640707
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	50.0	Hole depth:	50.0
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1964-07-07	Ground water data end date:	1964-07-07
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1964-07-07	7.00	

Note: The site had been pumped recently.

7
South
1/2 - 1 Mile
Lower

FED USGS **USGS3253913**

Agency cd:	USGS	Site no:	444139123140001
Site name:	10S/04W-19BBB		
Latitude:	444139		
Longitude:	1231400	Dec lat:	44.69400939
Dec lon:	-123.23454297	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	003
Country:	US	Land net:	SWSWSWS18T10SR04WW
Location map:	LEWISBURG	Map scale:	24000
Altitude:	308.00	Altitude method:	M
Altitude accuracy:	5.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Hillside (slope)		
Site type:	Ground-water other than Spring	Date construction:	19710918
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	400	Hole depth:	400
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1971-09-18	Ground water data end date:	1971-09-18
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1971-09-18	43.00	

8
NE
1/2 - 1 Mile
Lower

FED USGS **USGS3253952**

Agency cd:	USGS	Site no:	444237123132101
Site name:	10S/04W-07DCC		
Latitude:	444237		
Longitude:	1231321	Dec lat:	44.71012044
Dec lon:	-123.22370939	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	003
Country:	US	Land net:	SWSWSES07T10SR04WW
Location map:	LEWISBURG	Map scale:	24000
Altitude:	235.00	Altitude method:	M
Altitude accuracy:	5.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Flat surface		
Site type:	Ground-water other than Spring	Date construction:	19750403
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	290	Hole depth:	290
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1976-09-28	Ground water data end date:	1976-09-28
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-09-28	13.40	

9
NE
1/2 - 1 Mile
Lower

FED USGS **USGS3253957**

Agency cd:	USGS	Site no:	444246123132601
Site name:	10S/04W-07CAC1		
Latitude:	444246		
Longitude:	1231326	Dec lat:	44.71262041
Dec lon:	-123.22509832	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	003
Country:	US	Land net:	SWNESWS07T10SR04WW
Location map:	LEWISBURG	Map scale:	24000
Altitude:	220.00	Altitude method:	M
Altitude accuracy:	5.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Flat surface		
Site type:	Ground-water other than Spring	Date construction:	19740502
Date inventoried:	Not Reported	Mean greenwich time offset:	PST

Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	89.0	Hole depth:	115
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1976-09-16	Ground water data end date:	1976-09-16
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1976-09-16	15.87	

10
North
1/2 - 1 Mile
Lower

FED USGS USGS3253962

Agency cd:	USGS	Site no:	444255123140401
Site name:	10S/05W-12DAA		
Latitude:	444255		
Longitude:	1231404	Dec lat:	44.71512032
Dec lon:	-123.23565414	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	003
Country:	US	Land net:	NENESES12T10SR05WW
Location map:	LEWISBURG	Map scale:	24000
Altitude:	231.00	Altitude method:	M
Altitude accuracy:	5.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Undulating		
Site type:	Ground-water other than Spring	Date construction:	19700416
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	140	Hole depth:	140
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1970-04-16	Ground water data end date:	1970-04-16
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1970-04-16	12.00	

11
South
1/2 - 1 Mile
Lower

FED USGS **USGS3253904**

Agency cd:	USGS	Site no:	444126123140601
Site name:	10S/04W-24AD		
Latitude:	444125.97		
Longitude:	1231405.70	Dec lat:	44.69038997
Dec lon:	-123.23612634	Coor meth:	G
Coor accr:	5	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	003
Country:	US	Land net:	SWNES24 T1000SR0400WW
Location map:	LEWISBURG	Map scale:	24000
Altitude:	322	Altitude method:	M
Altitude accuracy:	5	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Hillside (slope)		
Site type:	Ground-water other than Spring	Date construction:	19950615
Date inventoried:	19961002	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	402	Hole depth:	402
Source of depth data:	driller	Project number:	4741-16800
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

12
South
1/2 - 1 Mile
Lower

FED USGS **USGS3253903**

Agency cd:	USGS	Site no:	444124123141201
Site name:	10S/05W-24ADB		
Latitude:	444124		
Longitude:	1231412	Dec lat:	44.68984274
Dec lon:	-123.23787639	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	41
State:	41	County:	003
Country:	US	Land net:	NWSENWS24T10SR05WW
Location map:	LEWISBURG	Map scale:	24000

Altitude:	282.00	Altitude method:	M
Altitude accuracy:	5.	Altitude datum:	NGVD29
Hydrologic:	Upper Willamette. Oregon. Area = 1830 sq.mi.		
Topographic:	Valley flat		
Site type:	Ground-water other than Spring	Date construction:	19640313
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	125	Hole depth:	125
Source of depth data:	Not Reported	Project number:	4741-07800
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1964-03-13	Ground water data end date:	1964-03-13
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1964-03-13	9.00	

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: OR Radon

Radon Test Results

Zip	Total Sites	Min pCi/L	Max pCi/L	Avg pCi/L	>4 pCi/L
97361	3	0.3	1.5	1.0	0

Federal EPA Radon Zone for BENTON County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.
Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002. 7.5-Minute DEMs correspond to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW[R] Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

STATE RECORDS

Oregon Digitized Wells
Source: Water Resources Department
Telephone: 503-378-8455

OTHER STATE DATABASE INFORMATION

RADON

State Database: OR Radon
Source: Oregon Health Services
Telephone: 503-731-4272
Radon Levels in Orgeon

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

Screening Level Risk Assessment
Camp Adair, Oregon

Ecological Screening-Level Risk Assessment

A Screening Level Risk Assessment (SLERA) was performed for the Camp Adair Formerly Utilized Defense Site (FUDS) site located in Polk, Benton, and Linn Counties. First, the current and reasonable future habitat at the site was evaluated to determine if any ecological receptors are likely to be present and if there are any complete exposure pathways. Based on the habitat descriptions provided in earlier sections of this report, the site consists of relatively flat to mountainous zones, variously vegetated with crops, grasses, shrubs, and trees. Elevation varies from between 200 ft to over 2,000 ft above mean sea level. Current and expected future land use relevant to ecological receptors includes agriculture, state and national forest land, wildlife management and recreation areas, and state and county parks. The site is located within the Upper Willamette watershed and is drained in a generally eastern direction by tributaries of the Willamette River. The Luckiamute River is the largest surface water feature flowing through the area of the former Camp Adair. Therefore, adequate habitat appears to be present at the site.

As chemicals of potential ecological concern (COPECs) were detected in soil and sediment and adequate habitat exists, complete exposure pathways are present. Therefore, as ecological receptors are likely present at the site and there are complete exposure pathways, further SLERA evaluation is necessary. It should be noted that no surface water or air samples were collected.

According to the Screening-Level Ecological Risk Assessment Guidance for FUDS Military Munitions Response Program (MMRP) Site Inspections (USACE, 2006), only sites that are considered to be Important Ecological Places or are to be managed for ecological purposes, actually require a SLERA. As shown in **Table 2-3** of the Camp Adair SI Report, the site does meet several of the 33 criteria for designation as an Important Ecological Place.

For purposes of the SLERA, the site has been segregated into 13 Areas of Concern (AOCs):

1. Range Complex 1
2. Range Complex 2
3. Range Complex 3
4. Range Complex 4
5. Range Complex 5
6. Range Complex 6
7. Skeet Range 580
8. Bombing Target Range
9. Mortar Range
10. Moving Target Range 75
11. East Live Grenade Court
12. West Live Grenade Court
13. Live Hand Grenade Court 129

Additional Ecological Issues

There is a potential concern for large lead particles, or lead shot, to be present at some of the AOCs, and therefore adversely impact certain species of birds that intentionally ingest grit to add their digestion. As soil samples were sieved prior to chemical analysis, there is the possibility that lead shot was excluded from the analysis. To evaluate this avian concern for potential lead shot toxicity, the following two questions are posed for the site:

1. Are gallinaceous birds (grouse, pheasants, turkeys, partridges, domestic fowls, etc.) present, or likely to be present on site?
2. Are lead particles likely to be present in preferred grit sizes for a range of representative gallinaceous birds at the site, for example, for quail with a preferred grit size of 0.8 – 2.2 mm diameter or turkey with a preferred grit size of 2.8 – 4.2 mm diameter (Gionfriddo and Best, 1991)?

For question No. 1, it is possible that gallinaceous birds might be present on the site, based on the presence of terrestrial habitat for some of these types of birds.

For question No. 2, a single lead bullet was found in Range Complex No 4, and it can be assumed that additional bullets are present.

As one of these questions can be answered in the negative, no further action for the site, related to lead fragments or lead shot and potential terrestrial bird toxicity, is recommended.

SLERA Evaluation

Four inorganics in soil (barium at Moving Target Range 75, chromium at the Mortar Range, lead at Range Complex 4 and Skeet Range 580, and molybdenum at Range Complex 3) were found at five of the AOCs above conservative ecological screening values, as well as above site-specific background concentrations. The ecological screening values (ESVs) for these four inorganic COPECs were from the Oregon Department of Environmental Quality (ODEQ) (2001) and were based on the following receptors and exposure pathways:

Soil COPEC	ESV (mg/kg)	Receptor	Pathway of Concern/Comments
Barium	85	American robin	Bioaccumulation of inorganic from soil to worms, followed by ingestion by bird
Chromium	0.4	Soil invertebrate	Direct contact toxicity/chromium III
Lead	16	American robin	Bioaccumulation of inorganic from soil to worms, followed by ingestion by bird
Molybdenum	2.0	Plants	Direct contact toxicity

As all of these receptors are possible at the site, and the maximum detected concentrations (MDCs) of these inorganics in soil exceed the ESVs by a considerable amount, adverse ecological effects are possible.

Five inorganics in sediment (aluminum in the Mortar Range; barium in Range Complex 2, the Bombing Target Range, the Moving Target Range, the East Live Grenade Court, and the Mortar Range; chromium

in the Mortar Range; manganese in the Mortar Range and the Moving Target Range;, and nickel in the Mortar Range) were found at five of the AOCs above conservative ecological screening values, as well as above site-specific background MDCs. The ESVs for these five inorganic COPECs were from ODEQ (2001) or Los Alamos National Laboratory (LANL) (2005) and were based on the following receptors and exposure pathways:

Sediment COPEC	**ESV (mg/kg)**	**Receptor**	**Pathway of Concern/Comments**
Aluminum	280	Little brown bat	Bioaccumulation from sediment to emergent aquatic invertebrates, followed by ingestion by bat/from LANL (2005)
Barium	48	Marine amphipod	Direct contact toxicity/from LANL (2005)
Chromium	37	Freshwater amphipod	Direct contact toxicity/from ODEQ (2001)
Manganese	1,100	Freshwater aquatic invertebrate	Direct contact toxicity/from ODEQ (2001)
Nickel	18	Freshwater amphipod	Direct contact toxicity/from ODEQ (2001)

As the bioaccumulation exposure pathway from sediment to emergent aquatic invertebrates to a little brown bat may not occur at the site, the ESV of 280 mg/kg for aluminum may not be relevant to the site. Therefore, aluminum concentrations in sediment at the Mortar Range may not be an ecological concern.

As the barium ESV is based on a marine amphipod (an aquatic invertebrate) and the site is freshwater, the ESV of 48 mg/kg is not relevant to the site. Therefore, barium concentrations in sediment at Range Complex 2, the Bombing Target Range, the Moving Target Range, the East Live Grenade Court, and the Mortar Range are not an ecological concern.

As the other receptors for chromium manganese and nickel are possible at the site, and the MDCs of these inorganics in sediment exceed the ESVs by a considerable amount, adverse ecological effects are possible.

SLERA Conclusions

Results of the site SLERA are as follows:

- Inorganics of concern in soil included barium, chromium, lead, and molybdenum.
- Inorganics of concern in sediment included aluminum, chromium, manganese, and nickel. Aluminum, however, may not be a concern at the site if the bioaccumulation exposure pathway from sediment to emergent aquatic invertebrates to a little brown bat does not occur at the site.
- No constituents of concern were determined for surface water or air, as no samples were collected from these media.

Therefore, further action for ecological concerns is recommended for six AOCs (Moving Target Range 75, the Mortar Range, Range Complex 3, Range Complex 4, East Live Grenade Range, and Skeet Range 580) because (1) constituent concentrations were above ecological screening values and site-specific background in soil and/or sediment, and (2) the site represents an Important Ecological Place, as defined by USACE (2006).

References:

Gionfriddo and Best, 1991, “Characterization of Grit Use by Cornfield Birds,” Wilson Bulletin, 103(1) pp. 68-82.

Los Alamos National Laboratory (LANL), 2005, EcoRisk Database, Release 2.2, September.

Oregon Department of Environmental Quality (ODEQ), 2001, Guidance for Ecological Risk Assessment, Level II Screening Level Values, December.

Characterization of Background Distributions for Metals in Surface Soil

1.0 Introduction

This appendix describes the methodology that was used to characterize the background distributions of metals in surface soil at Camp Adair/Adair Air Force Station (Camp Adair). Ten background surface soil samples were collected in areas believed to be uninfluenced by site-related contamination, and they were submitted to an off-site laboratory for analysis of the 23 Target Analyte List metals, plus molybdenum, strontium, and titanium.

U.S. Environmental Protection Agency (EPA) guidance was used to evaluate distributional assumptions and characterize the distributions. The completed background data set can be used in site-to-background comparisons to identify constituents of concern at Camp Adair sites and determine the nature and extent of site-related contamination. In addition, the background data may be used to support human health and ecological risk assessments and proposals for no further action, develop realistic remediation goals, and evaluate the success of remediation efforts.

2.0 Methodology for the Characterization of Background Distributions

Background concentrations of naturally occurring metals form a distribution of values over a given spatial area. The characterization of background can be defined as the process of describing the statistical distributions of concentration values from samples obtained at representative locations. The statistical methodology used to characterize background distributions at Camp Adair is based on published EPA guidance (EPA, 1989, 1992, 1994, 1995, and 2006). Key issues in background characterization include:

- Handling of nondetects
- Evaluation of distributional assumptions
- Handling of outliers
- Calculation of summary statistics.

The following sections explain how these key issues were addressed.

Handling of Nondetects. A certain proportion of nondetect values are common in background data sets. A variety of methods to deal with nondetects have been proposed, each of which has advantages and disadvantages with respect to introducing unwanted bias into the description of background. In accordance with EPA guidance, nondetects were replaced with a value equal to one-half of the reporting limit for that analyte (EPA, 1989).

Evaluation of Distributional Assumptions. The shape of the distribution, considered to be either normal, lognormal, or nonparametric, is reported as part of the characterization (the term "nonparametric" is not a specific shape, but is used to describe distributions that are neither normal or lognormal, as per EPA guidance). The selection of an appropriate type of statistical distribution is based on EPA guidance (EPA, 1989, 1992, and 2006).

The EPA recommends the Shapiro-Wilk test for determining whether the distribution of concentration data is normal, lognormal, or neither (EPA, 1992 and 2006). The test is performed on the untransformed data to test for normality. Lognormality is tested by taking the logarithm (log-transform) of the data and then testing for normality. The test returns a "p-level" value between zero and one, indicating the goodness of fit. A p-level of 0.05 or greater indicates an acceptable fit to a normal model at the 95 percent confidence level; in other words, there is only a one-in-twenty chance of falsely identifying the distribution as normal when it really is not. If the transformed and untransformed data both yield p-levels that are greater than 0.05, then the result with highest p-level is used to determine if the distribution is normal or lognormal. If the Shapiro-Wilk test indicates that a data set is neither normal nor lognormal at this confidence level, then the data are assumed to have a nonparametric distribution. Data sets with greater than 15 percent nondetects are automatically treated as nonparametric distributions as per EPA guidance (EPA, 1989).

Handling of Outliers. Outliers are defined as data points whose values are anomalously high relative to the rest of the data set (EPA, 1989). Possible reasons for outliers are improper sampling, analytical error, or laboratory contamination; errors in transcription of data values, decimal points, or units; the presence of actual contamination in the sample; or a natural background concentration that is unusually high. For each element, the concentration data were rank-ordered and the maximum value was flagged if it was greater than five times the second-highest value (EPA, 1989). Samples flagged as

outliers were further examined via geochemical evaluation to determine whether there is a natural source for the elevated concentrations. Statistical or geochemical outliers were only eliminated from consideration if there were reasons to suspect errors in the data or site-related contamination in the sample.

Calculation of Summary Statistics. A complete statistical description of each background distribution is provided in Section 3.0. These descriptions include the number of samples, percent nondetects, distribution type (normal, lognormal, or nonparametric), minimum, median, geometric mean, arithmetic mean, maximum, and a concentration that is representative of the upper range of the background distribution for use as a background screening value. The standard deviation and coefficient of variation (standard deviation divided by the mean) are also provided; they are both measures of the variance of the distributions.

It is important to select the background screening value carefully so that the probability of falsely identifying site samples as contaminated or uncontaminated is minimized. Ideally, a site sample with a concentration above the screening value would have a low probability of being a member of the background distribution, and may be an indicator of contamination. The 95th upper tolerance limit (UTL) is recommended as a screening value for normally or lognormally distributed analytes, and the 95th percentile is recommended as a screening value for nonparametrically distributed analytes (EPA, 1989, 1992, and 1994).

The UTL establishes a concentration range that is constructed to contain a specified proportion of the population with a specified confidence. The proportion of the population included is referred to as the "coverage," and the probability with which the tolerance interval includes the proportion is referred to as the "tolerance coefficient." The EPA-recommended coverage of 95 percent and tolerance coefficient of 95 percent (EPA, 1989) were used to calculate the UTLs. A coverage of 95 percent means that random uncontaminated site samples will exceed the screening value less than 5 percent of the time. A tolerance coefficient of 95 percent means that one has a 95 percent confidence that the 95th UTL will contain at least 95 percent of the background distribution. Site samples with concentrations above the background 95th UTL (or 95th percentile) are not necessarily contaminated, but they should be considered suspect.

The complete descriptions of background distributions that are provided in Section 3.0 are sufficient to allow the calculation of most statistical parameters (such as the standard error of the mean, two standard deviations above the mean, etc.). The descriptions can also be used to support site-to-background data set comparisons. There are two general types of statistical site-to-background comparisons. Parametric comparisons, such as the ANOVA (analysis of variance) and the two-sample *t* test, require the means and standard deviations of the distributions that are being compared. Nonparametric comparison tests, such as the Wilcoxon rank sum test and the Gehan test, require the actual data rather than summary statistics. For these purposes, the actual data are also provided in Appendix F.

3.0 Background Distributions of Metals in Surface Soil

As noted above, the Camp Adair background soil data were subjected to an outlier test to identify potentially anomalous concentrations. This test identified the chromium concentration in sample NWO-017-5001 (243 J mg/kg) as potentially anomalous. However, a geochemical evaluation was subsequently performed and it was determined that the elevated concentration most likely has a natural source. Accordingly, the chromium concentration was retained in the background data set.

Twenty-two of the 26 analytes were detected in all of the background surface soil samples (Table 1). Antimony, mercury, selenium, and thallium were detected in some of the samples, with nondetects ranging from 30 to 60 percent. The distributions of these four elements are treated as nonparametric because of the high percentage of nondetects. The distributions of arsenic, beryllium, lead, potassium, and zinc were determined to be normal, and the distribution of chromium is treated as nonparametric due to failure of the normality/lognormality test. Distributions of the remaining 16 elements were determined to be lognormal.

Of the 26 elements analyzed in the background samples, iron and aluminum have the highest median concentrations (Table 1). Iron in the samples is most likely present as iron oxides, which are common soil-forming minerals that occur as discrete mineral grains or as coatings on silicate minerals (Cornell and Schwertmann, 2003). Aluminum is a primary component of common soil-forming minerals such as clays, feldspars, and micas. Aluminum also substitutes for ferric iron in iron oxide minerals, and it can adsorb on iron oxide surfaces (Cornell and Schwertmann, 2003). It is important to note that iron oxides and clays are fine-grained minerals that have strong affinities to adsorb specific trace elements. Finer-grained soil samples are therefore expected to contain naturally

higher concentrations of iron, aluminum, and associated trace elements, relative to coarser-grained soil samples.

It is important to note that the calculated background 95th UTLs exceed their corresponding maximum detected concentrations (Table 1). This is expected due to the small sample size (n = 10) and naturally large range of element concentrations. Under these conditions, it is not reasonable to assume that the limited number of samples have accurately characterized the upper tail of the actual population. The background 95th UTLs were calculated in accordance with EPA, 1989 (UTL = mean + $K \cdot$ standard deviation), where K is a tolerance factor that is a function of n, the desired coverage (95 percent), and the desired confidence level (95 percent). The UTL is calculated from a fit to the data, and is thus able to extrapolate the upper tail of the population based on the existing data.

References

Cornell, R. M. and U. Schwertmann, 2003, ***The Iron Oxides: Structure, Properties, Reactions, Occurrences and Uses***, Second Edition, Wiley-VCH, Weinheim.

U.S. Environmental Protection Agency (EPA), 2006, ***Data Quality Assessment: Statistical Methods for Practitioners***, EPA/240/B-06/003, Office of Environmental Information, February.

U.S. Environmental Protection Agency (EPA), 1995, ***Determination of Background Concentrations of Inorganics in Soils and Sediments at Hazardous Waste Sites***, Office of Research and Development, EPA/540/S-96/500, December.

U.S. Environmental Protection Agency (EPA), 1994, ***Statistical Methods For Evaluating The Attainment Of Cleanup Standards***, Environmental Statistics and Information Division, Office of Policy, Planning, and Evaluation, EPA/230/R-94/004, June.

U.S. Environmental Protection Agency (EPA), 1992, ***Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities, Addendum to Interim Final Guidance***, Environmental Statistics and Information Division, Office of Policy, Planning, and Evaluation, EPA/530/R-93/003, July.

U.S. Environmental Protection Agency (EPA), 1989, ***Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities, Interim Final Guidance***, Office of Solid Waste, Waste Management Division, EPA/530/SW-89/026, July.

Table 1

Background Summary Statistics for Surface Soil (mg/kg)
Camp Adair/Adair Air Force Station

Element	No. of Samples	Percent Nondetects	Distribution Type	Minimum	Median	Geometric Mean	Arithmetic Mean	Maximum	Standard Deviation	Coefficient of Variation	95th UTL/ 95th Percentile
Aluminum	10	0	Lognormal	18,800	27,800	27,500	28,900	54,000	10,600	0.37	71,400
Antimony	10	50	Nonparametric	0.14	< 0.8	0.280	0.301	< 0.83	0.113	0.38	< 0.83
Arsenic	10	0	Normal	0.95	6.5	5.76	7.01	13.6	3.81	0.54	18.1
Barium	10	0	Lognormal	99.1	176	172	182	290	61.3	0.34	472
Beryllium	10	0	Normal	0.43	0.92	0.82	0.87	1.3	0.28	0.32	1.67
Cadmium	10	0	Lognormal	0.13	0.30	0.27	0.29	0.6	0.14	0.47	0.996
Calcium	10	0	Lognormal	1,350	1,975	2,320	2,540	5,770	1,300	0.51	7,920
Chromium	10	0	Nonparametric	18.8	33.0	38.1	53.0	243	67.1	1.27	153
Cobalt	10	0	Lognormal	9.3	16	18.9	23.3	80.6	20.9	0.90	108
Copper	10	0	Lognormal	12.3	25.7	27.3	35.6	133	35.5	1.00	203
Iron	10	0	Lognormal	19,300	37,350	37,500	40,400	83,100	17,700	0.44	119,000
Lead	10	0	Normal	3.5	15.5	12.2	13.6	22.2	5.47	0.40	29.5
Magnesium	10	0	Lognormal	1,220	4,300	3,970	4,950	15,300	3,960	0.80	28,900
Manganese	10	0	Lognormal	623	1,020	1,090	1,200	2,400	597	0.50	4,100
Mercury	10	30	Nonparametric	0.026	0.036	0.039	0.040	0.067	0.012	0.31	0.060
Molybdenum	10	0	Lognormal	0.3	0.50	0.49	0.52	0.87	0.18	0.36	1.36
Nickel	10	0	Lognormal	7.4	18.8	19.2	25.3	96.8	25.9	1.03	148
Potassium	10	0	Normal	572	1,975	1,660	1,810	2,610	686	0.38	3,810
Selenium	10	60	Nonparametric	0.85	< 4	1.52	1.63	< 4.7	0.60	0.37	< 4.7
Silver	10	0	Lognormal	0.026	0.038	0.046	0.053	0.13	0.034	0.63	0.21
Sodium	10	0	Lognormal	29.7	63.6	66.7	94.5	411	114	1.20	614
Strontium	10	0	Lognormal	12.3	21.6	20.4	21.6	36.6	7.60	0.35	57.1
Thallium	10	40	Nonparametric	0.15	0.25	0.24	0.25	0.34	0.06	0.25	0.33
Titanium	10	0	Lognormal	292	888	942	1,540	5,690	1,680	1.09	19,900
Vanadium	10	0	Lognormal	45.3	89.7	89.4	105	319	78.5	0.75	427
Zinc	10	0	Normal	31.9	74.2	63.8	68.5	104	25.0	0.37	141

Note: 95th UTLs are provided for analytes with normal or lognormal distributions. 95th percentiles are provided for analytes with distributions that are neither normal nor lognormal, or that have greater than 15 percent nondetects (per EPA, 1989).
mg/kg - Milligrams per kilogram.
NA - Not applicable.

Table 1

Background Summary Statistics for Surface Soil (mg/kg)
Camp Adair/Adair Air Force Station

UTL - Upper tolerance limit.

Geochemical Evaluation of Selected Elements in Surface Soil at Camp Adair

1.0 Introduction

This report provides the results of a geochemical evaluation of selected elements in surface soil samples from Camp Adair/Adair Air Force Station (Camp Adair), Oregon. The barium concentration in one Moving Target Range No. 75 sample, the chromium concentrations in two Mortar Range samples, and the molybdenum concentration in one Range Complex No. 3 sample exceeded their respective background screening values. The geochemical evaluation was performed to determine if these concentrations are naturally occurring or elevated due to site operations.

Site samples used in the evaluation include two regular surface soil samples and one field duplicate soil sample collected at Moving Target Range No. 75 in September 2006; three regular surface soil samples and one field duplicate surface soil sample collected at the Mortar Range in September 2006; and four regular surface soil samples collected at Range Complex No. 3 in August 2006. All of the samples were analyzed for the reference elements aluminum, iron, and manganese, in addition to trace elements of concern. Ten background surface soil samples were collected at Camp Adair in August and September of 2006, and they are used for comparative purposes in this evaluation.

2.0 Geochemical Evaluation Methodology

Trace elements naturally associate with specific soil-forming minerals, and geochemical evaluations are predicated on these known associations. For example, in most uncontaminated oxic soils, arsenic exhibits an almost exclusive association with iron oxide minerals (Bowell, 1994; Schiff and Weisberg, 1997). Arsenic exists in oxic soil pore fluid as oxyanions such as $HAsO_4^{-2}$ and $H_2AsO_4^{-}$ (Brookins, 1988), and these negatively charged species have a strong affinity to adsorb on iron oxides, which tend to maintain a net positive surface charge (Electric Power Research Institute, 1986). (In this report, the term “iron oxide” encompasses oxides, hydroxides, oxyhydroxides, and hydrous oxides of iron.) This association is expressed as a positive correlation between arsenic concentrations and iron concentrations for uncontaminated samples: soil samples with a low percentage of iron oxides will contain proportionally lower arsenic concentrations, and soil samples that are enriched in iron oxides will contain proportionally higher arsenic concentrations. Although there is variability in the absolute concentrations of arsenic and iron in soil at a site, the As/Fe ratios of the samples will be

relatively constant if no contamination is present (Daskalakis and O'Connor, 1995). Samples that contain excess arsenic from a contaminant source (e.g., arsenic-bearing compounds such as the chemical warfare agent lewisite or certain herbicides) will exhibit anomalously high As/Fe ratios compared to the uncontaminated samples.

To perform the geochemical evaluation, correlation plots are constructed to explore the elemental associations and identify potentially contaminated samples. The detected concentrations of the trace element of interest (dependent variable) are plotted against the detected concentrations of the reference element (independent variable), which represents the mineral to which the trace element may be adsorbed. In the case of arsenic, the arsenic concentrations for a given set of samples would be plotted on the y-axis, and the corresponding iron concentrations would be plotted on the x-axis. If no contamination is present, then the samples will exhibit a common trend and consistent As/Fe ratios, and the samples with the highest arsenic concentrations will lie on this trend. This indicates that the elevated arsenic is due to the preferential enrichment of iron oxides in those samples and that the arsenic has a natural source. If, however, the samples with high arsenic concentrations have low or moderate iron concentrations (anomalously high As/Fe ratios), then they will lie above the trend established by the other samples. This would indicate that the anomalous samples contain excess arsenic beyond that which can be explained by the natural iron oxide content, and such samples may contain a component of contamination.

The reference elements against which trace elements are evaluated reflect the affinity that the trace elements have for specific minerals. The concentrations of iron, aluminum, and manganese serve as qualitative indicators of the amounts of iron oxide, clay, and manganese oxide minerals in the soil samples. Along with arsenic, selenium and vanadium are present in oxic soil pore fluid as anions and have an affinity to adsorb on iron oxides, which tend to maintain a net positive surface charge. Concentrations of arsenic, selenium, or vanadium in a set of samples can be evaluated through comparison to the corresponding iron concentrations. Barium, cadmium, lead, and zinc are typically present in soil as divalent cations and have an affinity to adsorb on clay minerals, which tend to maintain a net negative surface charge. Concentrations of barium, cadmium, lead, or zinc can be evaluated through comparison to the corresponding aluminum concentrations. Manganese oxides have a strong affinity to adsorb barium, cobalt, and lead (Kabata-Pendias, 2001), so concentrations of these elements can be compared to the corresponding manganese concentrations, as long as there is enough manganese present in the soil to form discrete manganese oxides.

It is important to note that some trace elements have very strong affinities for a particular type of mineral, whereas other elements will partition themselves between several minerals. For instance, vanadium has a particularly strong affinity for iron oxides, so correlation coefficients for vanadium versus iron in uncontaminated samples are usually very high, and this is expressed on a correlation plot as a consistent trend with little to no scatter. In contrast, chromium forms several coexisting aqueous species with different charges [$Cr(OH)_2^+$, $Cr(OH)_3^0$, and $Cr(OH)_4^-$] that will adsorb on several different types of minerals, including clays and iron oxides. This behavior will yield lower correlation coefficients for chromium versus iron or chromium versus aluminum relative to the coefficients observed for vanadium versus iron, and more scatter may be observed on the correlation plots. Some elements are more selective than others with respect to adsorption on specific mineral surfaces, and this selectivity is dependent on site-specific conditions, including soil pH, redox conditions, and concentrations of competing elements.

It should be noted that the geochemical evaluations rely in part on professional judgment. Samples that plot off the background trend on a correlation plot are certainly suspect, but because all uncertainty cannot be eliminated from the evaluation, such plots cannot be construed as definitive proof of contamination. However, anomalous samples should be flagged as suspect, and their results should be used as a basis for further investigation, risk assessment, or remediation, as appropriate.

Ratio Plots. Site samples with a trace element present as a contaminant will exhibit anomalously high trace-versus-major element ratios compared to background trace-versus-major element ratios. These elevated ratios may not always be apparent in log-log correlation plots, especially at the upper range of concentrations. Therefore, ratio plots, which depict trace element concentrations on the y-axis and trace/major element ratios on the x-axis, are employed in conjunction with correlation plots in those cases where it is not immediately apparent which site samples have anomalously high elemental ratios on the correlation plots. The ratio plots permit easy identification of samples with anomalously high elemental ratios relative to background, and they have high resolution over the entire concentration range. The presence of an anomalously high elemental ratio is not definitive proof of site-related contamination; however, such samples are discussed in the text and, unless otherwise noted, are flagged as representing potential site-related contamination. This is a conservative approach.

It is important to note that there is natural variability, as well as analytical uncertainty, in the elemental ratios of uncontaminated soil samples. Trace/major element ratios are calculated from two uncertain analytical results, so the resulting uncertainties in the ratios can produce some scatter in the points on a ratio plot. This is especially true when estimated (“J”-qualified)

analytical results are used. This can be seen on many of the plots that show more scatter of the points at the lower end of the concentration range, where analytical uncertainties are higher and analytical results are reported with fewer significant figures.

On ratio plots, vertical trends should be expected only in those cases where the trace element adsorption is a linear process, where the trace element concentrations are controlled exclusively by adsorption on a given mineral type, and where the variances of the reference and trace element concentrations are similar. Nonvertical trends are much more common in ratio plots, however, because adsorption processes often are not linear, trace elements often have affinities for more than one type of sorptive surface, and the reference and trace element concentrations usually possess different variances. Nonlinear adsorption of a trace element on mineral surfaces will manifest itself as a curve rather than a straight line on a correlation plot and as a nonvertical trend on a ratio plot. In addition, the presence of competing ions in soil and differences in pH and redox conditions among the sample locations can add to the natural variability of elemental ratios.

3.0 Results of the Geochemical Evaluation of Selected Elements in Camp Adair Surface Soil

This section presents the geochemical evaluation results for barium in Moving Target Range No. 75 samples, chromium in Mortar Range samples, and molybdenum in Range Complex No. 3 samples. Evaluation of aluminum versus iron is a useful starting point in geochemical evaluations, because those two elements are the primary reference elements to which most trace elements are compared. Evaluation of these elements permits identification of potential aluminum or iron contamination in the site samples; contamination by one of these elements would preclude its use as a reference element.

Iron is the most abundant of the 17 elements analyzed in the Moving Target Range No. 75, Mortar Range, and Range Complex No. 3 surface soil data sets, with mean concentrations of 51,200 milligrams per kilogram (mg/kg) (5.1 weight percent), 78,800 mg/kg (7.9 weight percent), and 44,600 mg/kg (4.5 weight percent), respectively. Aluminum is the second most abundant element in the three data sets, with mean concentrations of 38,100 mg/kg (3.8 weight percent), 51,100 mg/kg (5.1 weight percent), and 29,600 mg/kg (3.0 weight percent), respectively. The iron in the samples is most likely present as iron oxides, which are common soil-forming minerals and occur as discrete mineral grains or as coatings on silicate minerals (Cornell and Schwertmann, 2003). Aluminum is a primary component of minerals such as clays, feldspars, and micas; it also substitutes for ferric iron in iron oxide minerals, and can adsorb on

iron oxide surfaces (Cornell and Schwertmann, 2003). Clays and iron oxides tend to exist as very fine particles, so both aluminum and iron are enriched in samples with finer grain sizes.

A plot of aluminum versus iron concentrations can be used as a qualitative indicator of the relative abundance of clay and iron oxide minerals in site soil (Figure 1). Covariance of aluminum and iron concentrations generally reflects grain-size effects, rather than chemical effects such as adsorption. The Camp Adair background and site samples form a common trend with a positive slope in the plot. The site samples have Al/Fe ratios that are similar to those of the background samples, which indicates a natural source for their aluminum and iron concentrations. One Moving Target Range No. 75 sample and the four Range Complex No. 3 samples have higher aluminum concentrations than the majority of background samples, but they also have proportionally higher iron. These samples are most likely finer grained relative to most of the background samples. Finer-grained soil samples contain a greater proportion of clay and oxide minerals that concentrate trace elements, as discussed previously. Areas of the site that have finer-grained soils are thus expected to have naturally higher trace element concentrations.

Barium in Soil at Moving Target Range No. 75. Manganese oxides are naturally occurring minerals in soil, and they are present as discrete mineral grains or as coatings on other minerals. Manganese oxides have a strong affinity to adsorb divalent cations (such as Ba^{2+}, Co^{2+}, and Pb^{2+}), due to the large surface area and high negative surface charges of these minerals. If a soil sample contains a high proportion of manganese oxides, then it is expected to contain naturally high concentrations of manganese and associated trace elements such as barium. Figure 2 depicts barium versus manganese concentrations in the background and Moving Target Range No. 75 samples. The site sample with the highest barium concentration (NWO-017-0041, from location 017A055) also has the highest manganese concentration, and it lies on the background trend.

Another perspective on the data sets is provided in Figure 3, which displays the barium concentrations of the site and background samples (y-axis) versus their corresponding Ba/Mn ratios (x-axis). If a site sample contained excess barium from a contaminant source, it would exhibit an anomalously high Ba/Mn ratio relative to background and would lie to the right of the background samples in Figure 3. However, all three site samples – including sample NWO-017-0041, which contains the highest barium concentration – have Ba/Mn ratios that are within the background range. These observations suggest that barium in the site samples is associated with manganese oxides at ratios consistent with those of the background samples, and that it is natural.

Chromium in Mortar Range Soil. As discussed previously, chromium can be present in soil as various species with different charges, and thus it can adsorb on several different types of minerals, including iron oxides and clays. Figure 4 provides a plot of chromium versus iron for the Mortar Range and background samples. The samples exhibit a positive correlation, which reflects chromium's affinity for adsorption on iron oxides. The Mortar Range samples have higher chromium concentrations than most of the background samples; however, they also have proportionally higher iron concentrations, and their Cr/Fe ratios are similar to those of the background samples. These observations suggest that chromium in the site samples is associated with iron oxides at ratios consistent with those of the background samples, and that it is natural.

Molybdenum in Range Complex No. 3 Soil. Molybdenum has an affinity to adsorb on iron oxides (Kabata-Pendias, 2001), so a positive correlation between molybdenum and iron concentrations is often observed for uncontaminated samples. A plot of molybdenum versus iron in the Range Complex No. 3 and background samples is provided in Figure 5. The background samples and three site samples form a common trend with a positive slope. This suggests that molybdenum in these site samples is associated with iron oxides at ratios consistent with those of the background samples and is natural. Site sample NWO-017-0036, collected at location 017A046, contains the highest molybdenum of the two data sets (5.7 mg/kg) but only moderate iron, and it lies well above the background trend in Figure 5. The Mo/Fe ratio of this sample is anomalously high, and therefore its molybdenum concentration should be considered suspect.

4.0 Summary

Barium, chromium, and molybdenum are present in Camp Adair site soil samples at concentrations that exceed their respective background screening values. Geochemical evaluation indicates that the concentrations of barium in the Moving Target Range No. 75 samples and chromium in the Mortar Range samples are naturally occurring. The molybdenum concentration in Range Complex No. 3 surface soil sample NWO-017-0036 (location 017A046) is anomalously high relative to the reference element concentrations. Given the available data, elevated molybdenum in sample NWO-017-0036 should be considered suspect.

5.0 References

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Figures

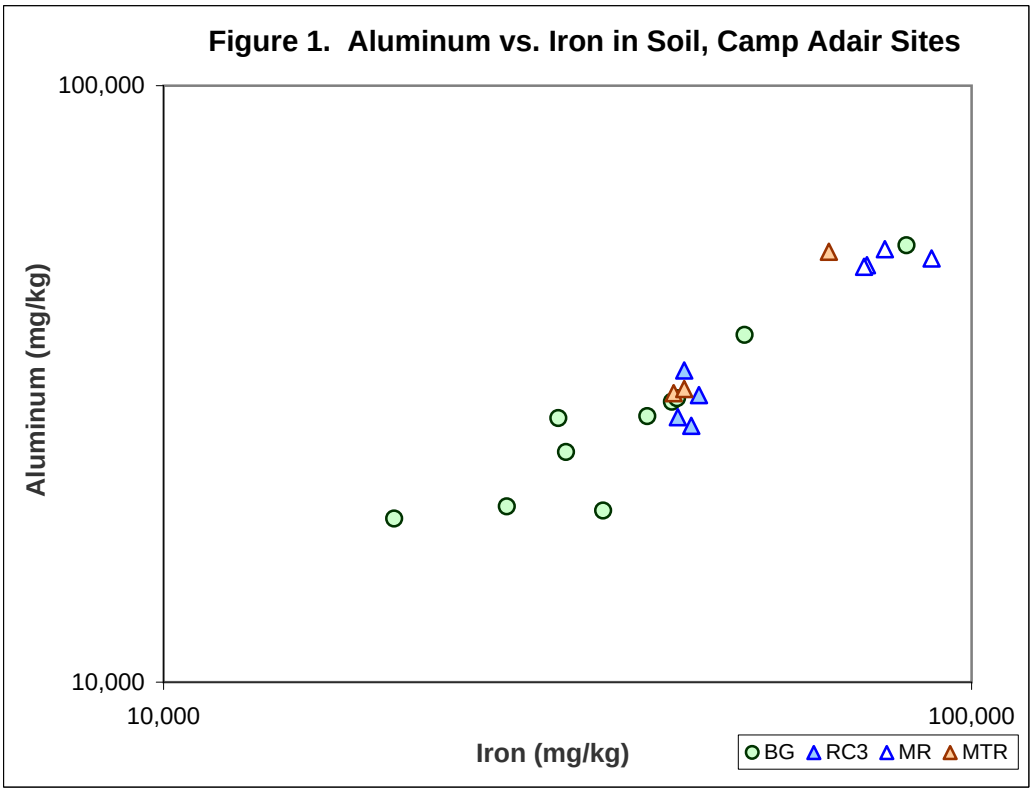


Figure 1. Aluminum vs. Iron in Soil, Camp Adair Sites
100,000
10,000
Aluminum (mg/kg)
10,000
100,000
Iron (mg/kg)
BG
RC3
MR
MTR

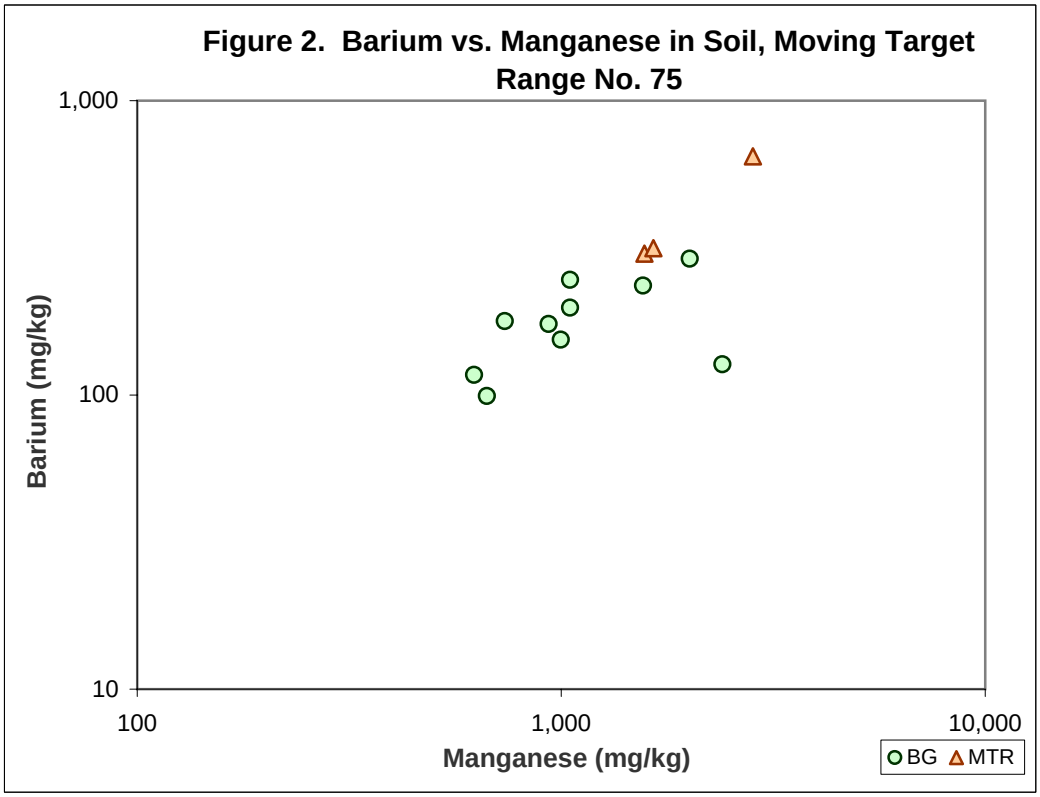


Figure 2. Barium vs. Manganese in Soil, Moving Target Range No. 75
1,000
100
10
Barium (mg/kg)
100
1,000
10,000
Manganese (mg/kg)
BG
MTR

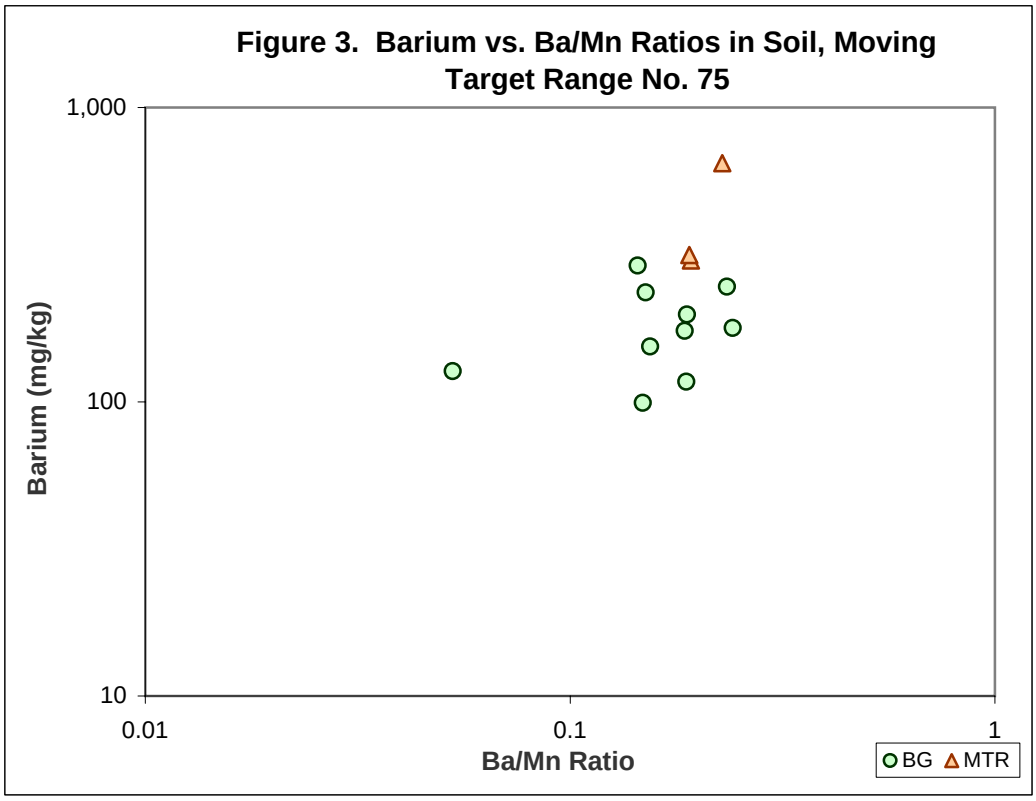


Figure 3. Barium vs. Ba/Mn Ratios in Soil, Moving Target Range No. 75
1,000
100
10
Barium (mg/kg)
0.01
0.1
1
Ba/Mn Ratio
BG
MTR

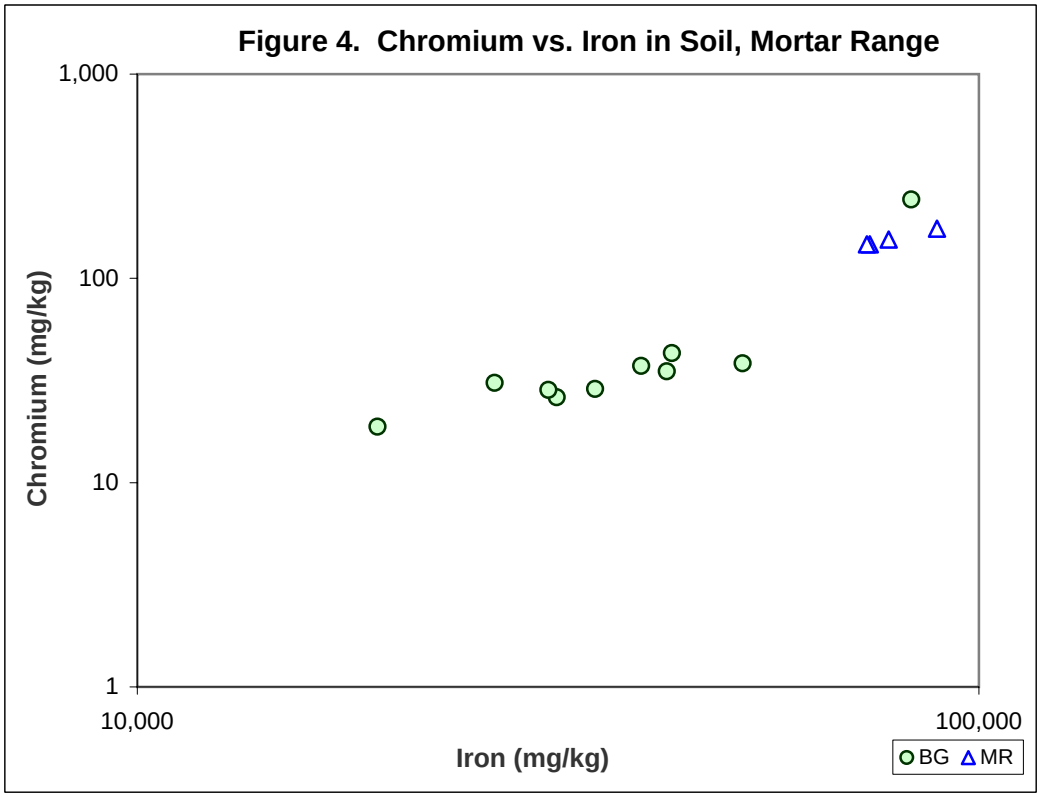


Figure 4. Chromium vs. Iron in Soil, Mortar Range
1,000
100
10
1
Chromium (mg/kg)
10,000
100,000
Iron (mg/kg)
BG
MR

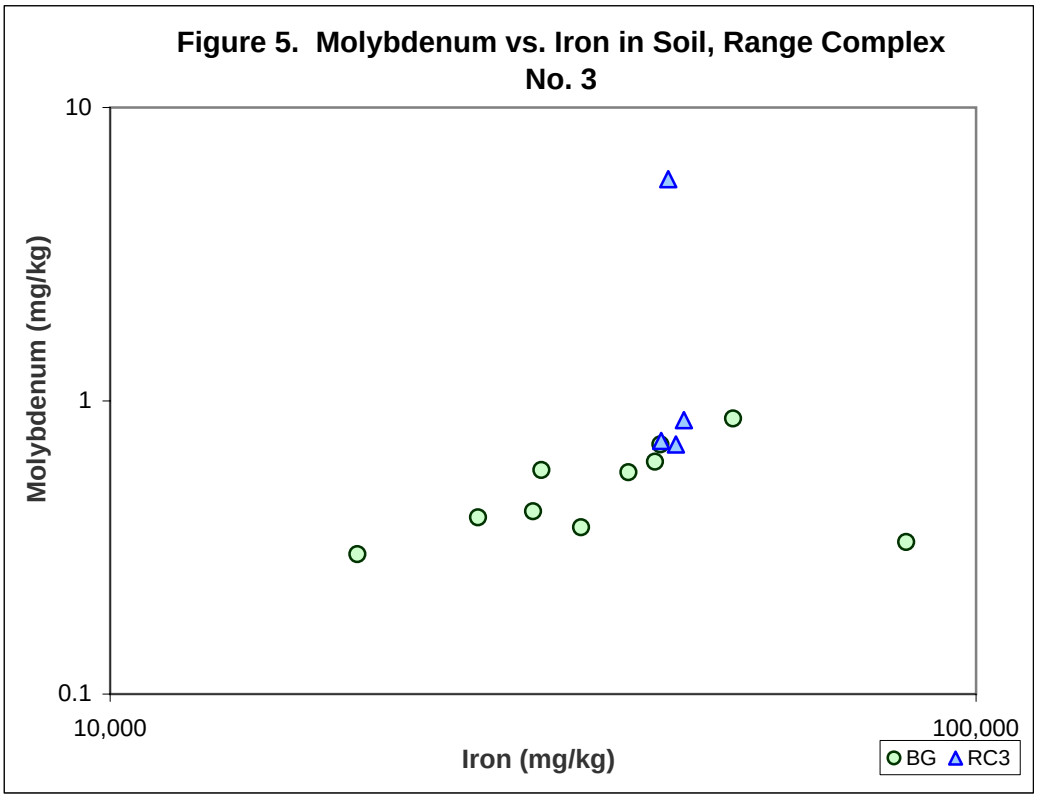


Figure 5. Molybdenum vs. Iron in Soil, Range Complex No. 3
10
1
0.1
Molybdenum (mg/kg)
10,000
100,000
Iron (mg/kg)
BG
RC3

EMCON Northwest, Inc.
15055 SW Sequoia Parkway • Suite 140 • Portland, Oregon 97224 • **(503) 624-7200** • Fax (503) 620-7658

September 30, 1994
Project 0139-001.18

Mr. Bill Webber, Manager
Valley Landfills, Inc.
P.O. Box 807
Corvallis, Oregon 97339

Re: Phosphorus Treatment and Disposal

Dear Bill:

At your request, EMCON Northwest, Inc. (EMCON), has prepared this report to document the white phosphorus remediation and disposal, conducted on September 13, 1994 by Valley Landfills, Inc. (VLI). The project was carried out at the VLI Coffin Butte landfill in Benton County, Oregon (see Figure 1).

Background

On Tuesday, July 12, 1994, VLI landfill employees, operating heavy equipment, were grading and otherwise preparing an area for the expansion of Cell 2C (refer to "phosphorus discovery area" in Figure 2), next to the existing active landfill. The crew uncovered light-colored rocks in a small canyon; on exposure, the rocks began to smolder and burn. A sample of rocks was collected and sent for analysis to Columbia Analytical Services, Inc. (CAS), the same day. The material covered an area 25 to 30 feet long by 1 foot wide, and possibly 1 to 2 feet deep. After the sample was taken, the area was covered with soil and caution tape and signs were placed around it (see photograph 1, Appendix A).

Preliminary laboratory results arrived on July 14, 1994: the material contained 7.3 percent iron, 0.08 percent sulfur, and 2.2 percent elemental phosphorus (see Appendix B). A release of over 1 pound of phosphorus is considered reportable because of its reactivity. Although VLI was not certain this would be considered a release, it reported the discovery of phosphorus to the National Emergency Response Center and the Oregon Emergency Management Division on July 15. The phosphorus-containing soil was moved out of the canyon, away from the site of the new cell construction, to a lined excavation area pending final decision on disposal or treatment (labeled "phosphorus treatment site" in Figure 2). The approximate volume of soil VLI transported to the new location was 50 to 70 cubic yards.

P/VAL/PTANDD-L.922-94/SB:3
0139-001.18

Elemental (or white) phosphorus is inert when stored under water or underground. The phosphorus discovered at Coffin Butte remained inert until it was uncovered and exposed to air and ultraviolet light.

EMCON's investigation into remediation techniques has yielded one common method of rendering such material nonhazardous: autoignition by controlled exposure to air. This method has been used in several different states, and regulatory agencies contacted by EMCON agree that on-site autoignition of elemental phosphorus is safer than transporting it to an off-site treatment, storage, and disposal (TSD) facility.

Accordingly, EMCON, on VLI's behalf, contacted and obtained verbal approval from John Taylor, Hazardous Waste Environmental Specialist for the Oregon Department of Environmental Quality (DEQ), on August 26, 1994. Mr. Taylor requested a workplan describing the remediation methods and that VLI notify DEQ at least three days before autoigniting the phosphorus.

VLI scheduled the autoignition for September 13, 1994, and EMCON notified Mr. Taylor of the scheduled date on September 8, 1994. This verbal notification was documented in a letter sent to Mr. Taylor the same day (see Appendix C).

Remediation and Disposal

At approximately 9:15 a.m. on September 13, seven VLI employees and one EMCON environmental scientist gathered near the treatment site (see Figure 2) to discuss safety precautions and the workplan for spreading, tilling, separating, and autoigniting the white phosphorus rocks. The following people were present:

Brent Jorgensen (EMCON, 40-hour OSHA-trained)
Steve Ellis (VLI site safety officer, 40-hour OSHA-trained)
Brian Stone (VLI landfill supervisor)
Don Fast (VLI landfill foreman)
Jim Keeney (VLI landfill foreman trainee)
Bill Stevens (VLI equipment operator)
Brian Keeney (VLI Oregon State University intern)
Kurt Paulus (VLI Oregon State University intern)

Project participants were required to wear Level C personal protective equipment, which included Tyvek™ coveralls, goggles, rubber boots and gloves, and neoprene half-mask respirators with C2150A cartridges that are protective in atmospheres containing organic

vapors, dust, fumes, mists, radionuclides, radon, and asbestos (refer to photograph 3, Appendix A).

By 9:45 a.m., VLI began the phosphorus remediation, which included the following:

- Spreading the phosphorus-bearing soil in 10 cubic yard lifts to a maximum height of about 6 inches.
- Separating the phosphorus rocks from the soil and collecting them in a single designated area.
- Crushing the rocks, using hand-held hammers, and finally using the bottom of a 10 cubic yards backhoe shovel and the surface of a 12 square foot metal plate.
- Shoveling the white phosphorus residue (phosphorus pentoxide) into a properly labeled, covered, steel 55-gallon drum.

About 300 pounds of residue and 100 pounds of soil from the treatment site were placed in one 55-gallon drum. With DEQ's approval (Ernie Schmidt, engineer, Solid Waste Division, personal communication, September 13, 1994), VLI transported and buried the drum in the asbestos pit (see Figure 2). The project was complete by 4 p.m. on September 13, 1994.

If you have any further questions or comments regarding this matter, please contact me at (503) 624-7200.

Sincerely,

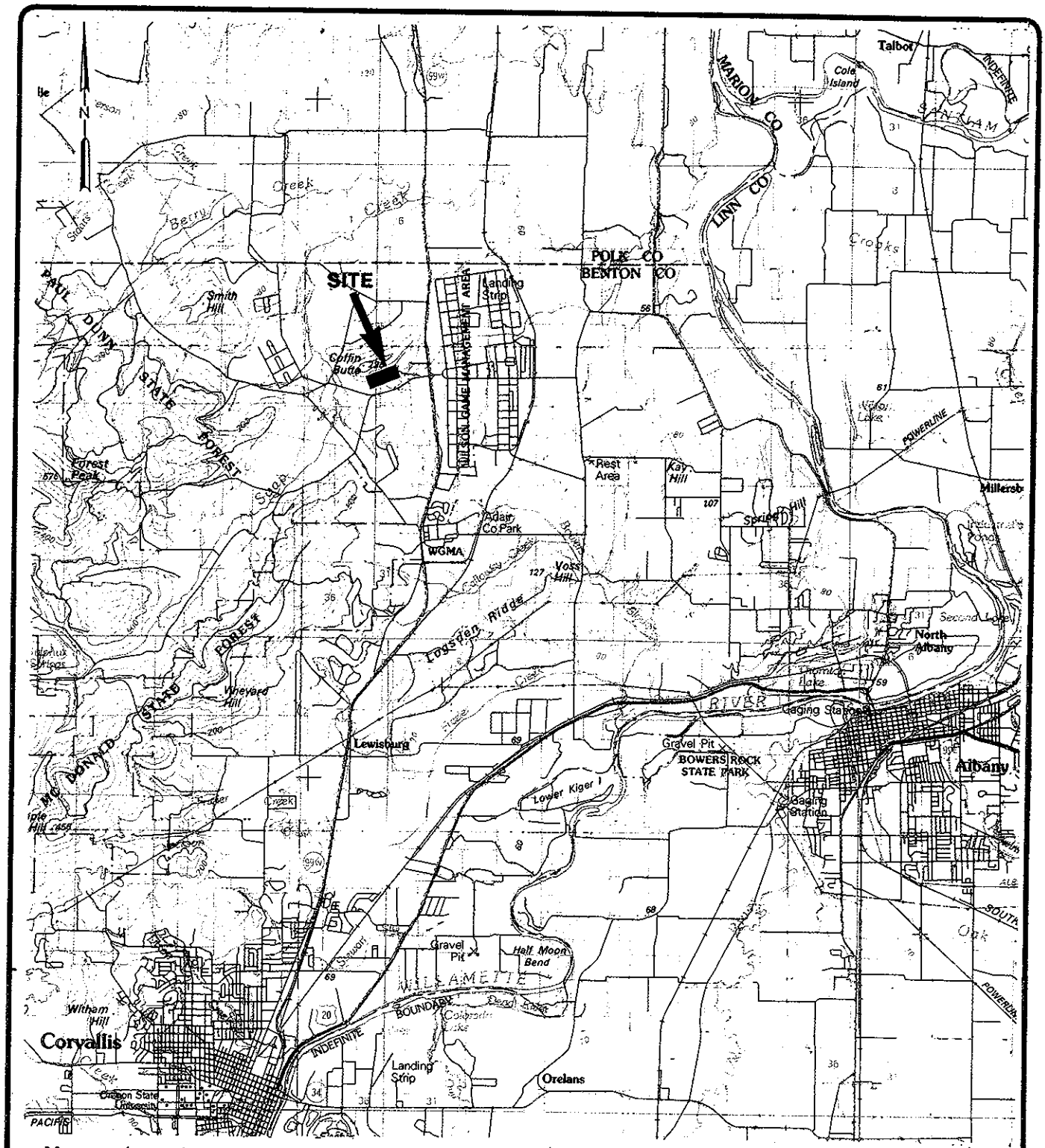
EMCON Northwest, Inc.

Brent Jorgensen

Brent Jorgensen
Senior Project Environmental Scientist

Attachments: Appendices A, B, and C
Figures 1 and 2

cc: Brian Stone, Gary Barton; VLI
Chuck Donaldson, Ernie Schmidt, and John Taylor; DEQ
Dorothy Atwood, Bob Healy, Sven Leon, Kristin Nadermann, and Eric Tuppan; EMCON, Portland



EMCON Northwest, Inc.

DATE 9/94
DWN. mk
APPR. BRJ
REVIS.
PROJECT NO. 0139001.18

Figure 1
VALLEY LANDFILLS, INC.
COFFIN BUTTE LANDFILL
BENTON COUNTY, OREGON
VICINITY MAP

APPENDIX A

SITE PHOTOGRAPHS

Photograph 1

Caution tape and signs were used to limit exposure of the white phosphorus to VLI employees and customers .

Photograph 2

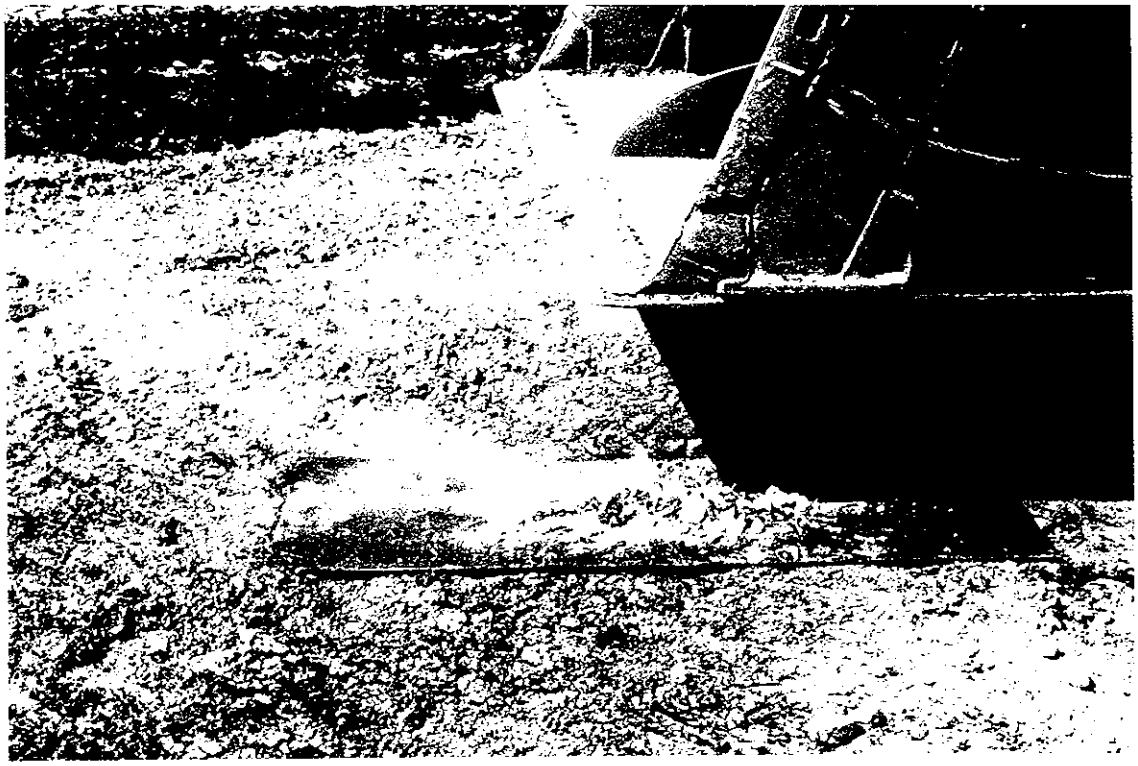
Heavy mobile equipment such as this Cat D5H was used to spread, till, separate and crush the white phosphorus during remediation activities.

Photograph 3

View of VLI employee crushing the white phosphorus rocks.

Photograph 4

View of white phosphorus reacting to air and sunlight exposure.



Photograph 5

Complete oxidation was accomplished using the bottom of a 10 yd^3 shovel and a 12 ft^2 metal plate.

Photograph 6

View of remediation area following cleanup.

APPENDIX B

LABORATORY TEST RESULTS

ORIGINAL IS IN PROJECT FILING

Columbia Analytical Services INC.

RECEIVED AUG 1 9 PORTLAND OFFICE

August 18, 1994

Service Request No.: K944772

Eric Tuppan
EMCON Northwest, Inc.
15055 SW Sequoia Parkway, Suite 140
P.O. Box 231269
Portland, OR 97224

Re: **Project #0139-001.00**

Dear Eric:

Enclosed are the results of the sample(s) submitted to our laboratory on July 12, 1994. For your reference, these analyses have been assigned our service request number K944772.

All analyses were performed consistent with our laboratory's quality assurance program. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the samples analyzed.

Please call if you have any questions. My extension is 216.

Respectfully submitted,
Columbia Analytical Services, Inc.

Jeff Christian
Laboratory Director

JC/rr

Page 1 of 3

Kelso, Washington 98626 • Telephone 206/636-1068

Acronyms

ASTM	American Society for Testing and Materials
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NAN	Not Analyzed
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected at or above the MRL
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	EMCON Northwest	**Date Received:**	7/12/94
Project:	#0139-001.00	**Work Order No.:**	K944772
Matrix:	Solid		

Total Metals
Percent (%)
As Received Basis

Analyte:		Iron	Phosphorous	Sulfur
EPA Method:		ICP-OES	ICP-OES	ICP-OES
Method Reporting Limit:		0.0004	0.005	0.005
Sample Name	Lab Code			
CB-071294-1R	K416301	7.3 ± 0.5	2.2 ± 1.0	0.08 ± 0.03

GENER S.1.23.03-13-92

Approved: J. Clark

Date: 8-17-94 Page No.: 10003

APPENDIX C

LETTER FROM EMCON TO DEQ

EMCON Northwest, Inc.
15055 SW Sequoia Parkway • Suite 140 • Portland, Oregon 97224 • (503) 624-7200 • Fax (503) 620-7658

September 8, 1994

Project 0139-001.18(1)

Mr. John Taylor
Department of Environmental Quality
750 Front Street, NE
Suite 120
Salem, Oregon 97310

Re: Treatment of Elemental Phosphorus at Coffin Butte Landfill

Dear Mr. Taylor:

This is written notification of the start date for the elemental phosphorus treatment at the Coffin Butte Landfill. Treatment (auto-ignition) will begin at 9:00 am on September 13, 1994 (Tuesday). An EMCON Northwest, Inc. (EMCON), environmental scientist with hazardous waste training will be on site during the treatment. Appropriate safety precautions will be taken.

Auto-ignition will be accomplished by tilling the soil containing phosphorus at its current location. Ash from the treatment will be landfilled at the site.

A letter summarizing the treatment will be sent to you when the project is complete.

Sincerely,

EMCON Northwest, Inc.

Brent Jorgensen
Senior Project Environmental Scientist

Kristin Nadermann
Project Environmental Scientist

cc: Bill Webber and Brian Stone; Valley Landfills, Inc.
Chuck Donaldson; Department of Environmental Quality, Solid Waste Division

P/VAL/TREAT-L.908-94/TC:0X
0139-001.18/01

200-1e
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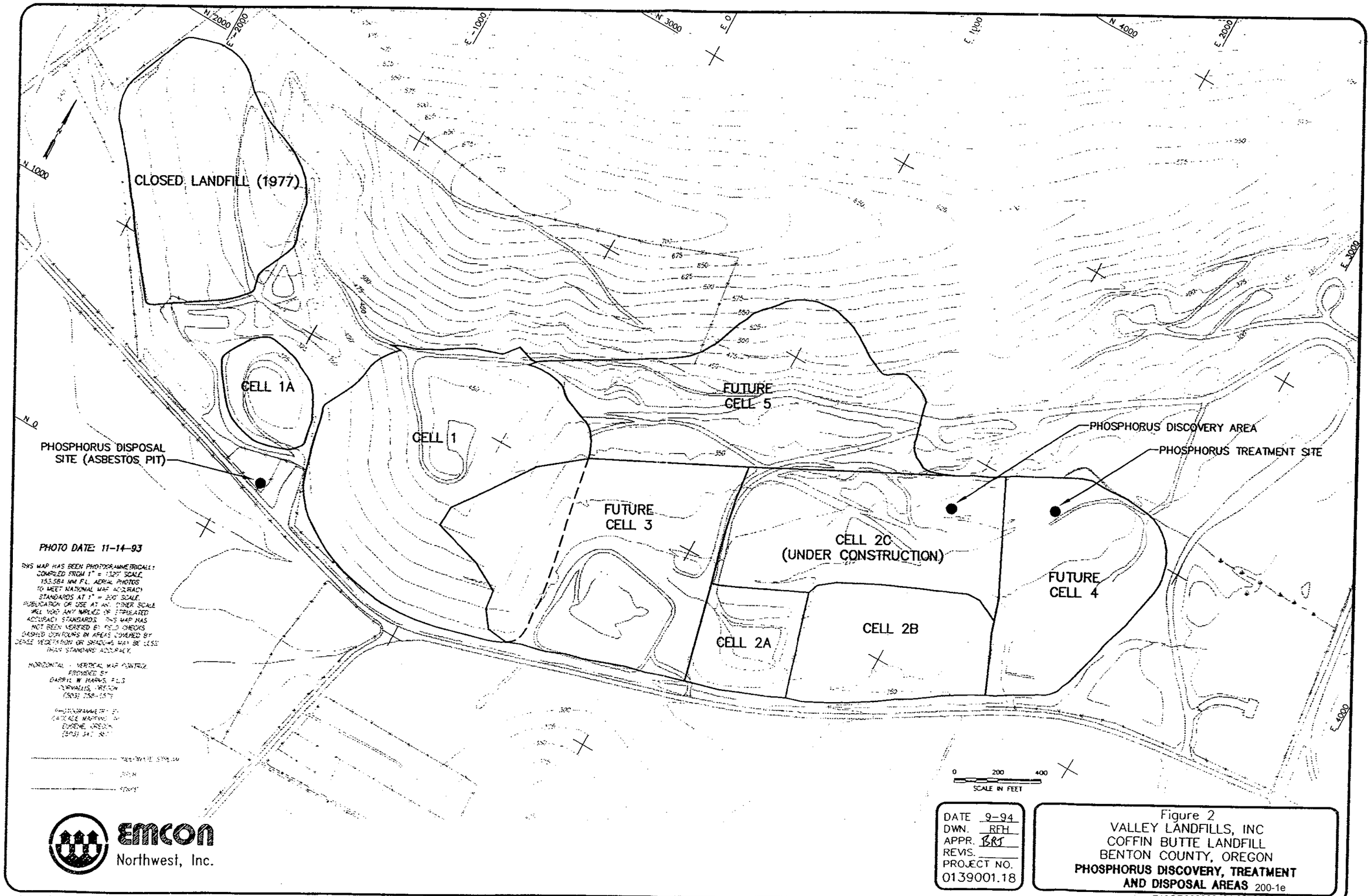


G:\DWG\0139\001\1852 9-21-94 RFH

NOTES:
1) Aerial photograph (rectify1948south.tif) was obtained from the U.S. Geological Survey and is dated July 1, 1948.

N

0 750 1,500 3,000
Feet

REFERENCE/PROJECTION: NAD 83 UTM Zone 10N

U.S. ARMY CORPS OF ENGINEERS
OMAHA DESIGN CENTER

FIGURE L-1

HISTORICAL AERIAL PHOTO

CAMP ADAIR

Shaw Environmental, Inc.

OFFICE	DRAWN BY		DRAWING NUMBER
MNRVL	K.Masterson	03/21/07	CampAdair_115_AppendixL_1_SI

200-1e
F10OR002908_01.09_0503_a

NOTES:
1) Aerial photograph (rectify1948north.tif) was obtained from the U.S. Geological Survey and is dated July 1, 1948.

N

0 750 1,500 3,000
Feet

REFERENCE/PROJECTION: NAD 83 UTM Zone 10N

U.S. ARMY CORPS OF ENGINEERS
OMAHA DESIGN CENTER

FIGURE L-2

HISTORICAL AERIAL PHOTO

CAMP ADAIR

Shaw Environmental, Inc.

OFFICE	DRAWN BY		DRAWING NUMBER
MRNVL	K.Masterson	03/21/07	CampAdair_116_AppendixL_2_SI

OFFICE	DRAWN BY		DRAWING NUMBER
MRNVL	K.Masterson	03/21/07	CampAdair_117_AppendixL_3_SI

NOTES:
1) Aerial photograph (1954_3_104.tif) was obtained from the U.S. Geological Survey and is dated September 1, 1954.

N

0 750 1,500 3,000
Feet

REFERENCE/PROJECTION: NAD 83 UTM Zone 10N

U.S. ARMY CORPS OF ENGINEERS
OMAHA DESIGN CENTER

FIGURE L-3

HISTORICAL AERIAL PHOTO

CAMP ADAIR

Shaw Environmental, Inc.

200-1e
F10OR002908_01.09_0503_a

OFFICE	DRAWN BY		DRAWING NUMBER
MRNVL	K.Masterson	03/21/07	CampAdair_118_AppendixL_4_SI

NOTES:
1) Aerial photograph (1954_3_106.tif) was obtained from the U.S. Geological Survey and is dated September 1, 1954.

N

0 1,000 2,000 4,000 Feet

REFERENCE/PROJECTION: NAD 83 UTM Zone 10N

U.S. ARMY CORPS OF ENGINEERS
OMAHA DESIGN CENTER

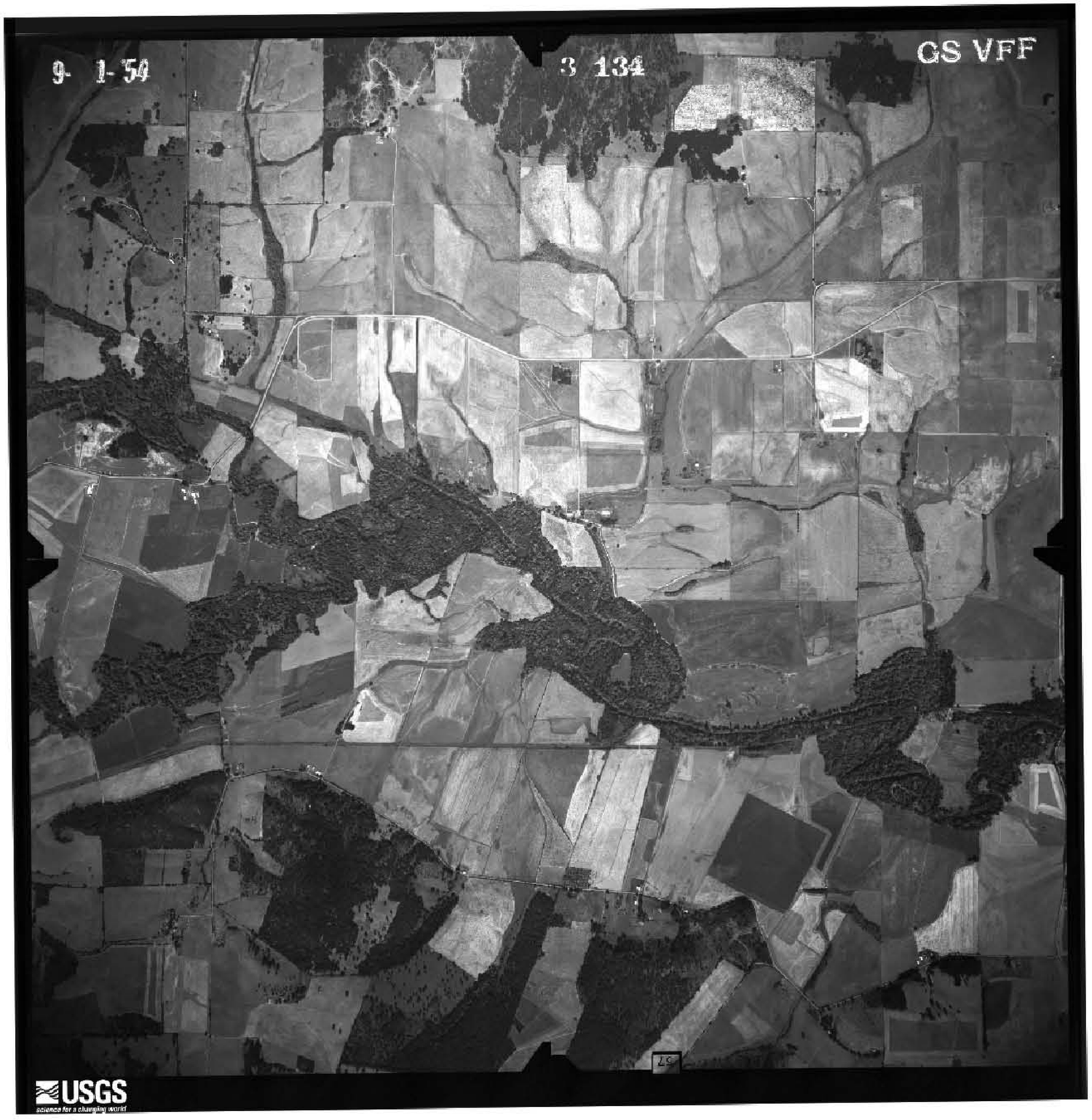
FIGURE L-4

HISTORICAL AERIAL PHOTO

CAMP ADAIR

Shaw Environmental, Inc.

200-1e
F10OR002908_01.09_0503_a



NOTES:
1) Aerial photograph (1954_3_134.tif) was obtained from the U.S. Geological Survey and is dated September 1, 1954.

N

0 1,000 2,000 4,000 Feet

REFERENCE/PROJECTION: NAD 83 UTM Zone 10N

U.S. ARMY CORPS OF ENGINEERS
OMAHA DESIGN CENTER

FIGURE L-5

HISTORICAL AERIAL PHOTO

CAMP ADAIR

Shaw Environmental, Inc.

OFFICE	DRAWN BY		DRAWING NUMBER
MRNVL	K.Masterson	03/21/07	CampAdair_119_AppendixL_5_SI

200-1e
F10OR002908_01.09_0503_a

NOTES:
1) Aerial photograph (1954_3_135.tif) was obtained from the U.S. Geological Survey and is dated September 1, 1954.

N

0 1,000 2,000 4,000 Feet

REFERENCE/PROJECTION: NAD 83 UTM Zone 10N

U.S. ARMY CORPS OF ENGINEERS
OMAHA DESIGN CENTER

FIGURE L-6

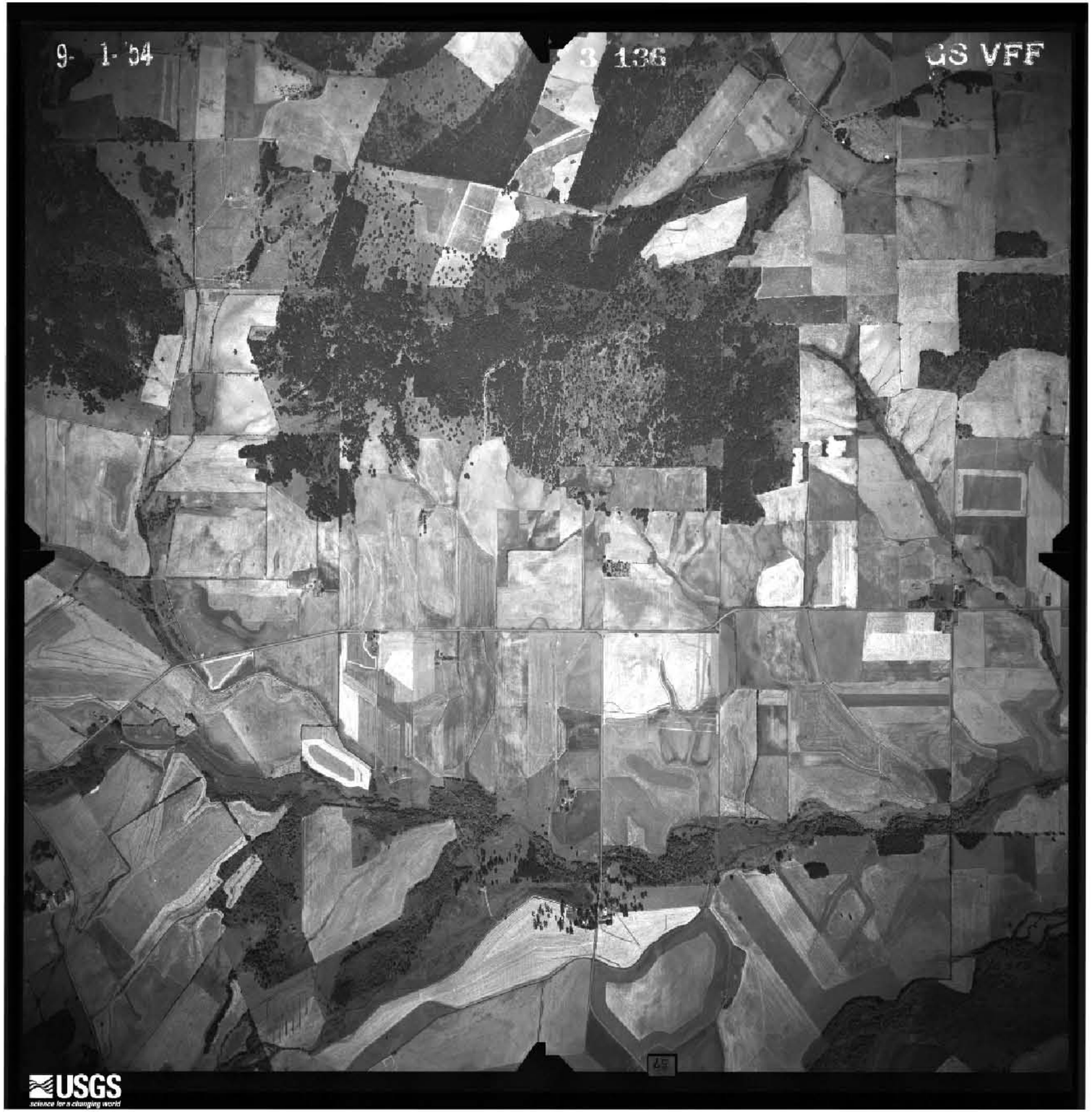
HISTORICAL AERIAL PHOTO

CAMP ADAIR

Shaw Environmental Inc.

OFFICE	DRAWN BY		DRAWING NUMBER
MRNVL	K.Masterson	03/21/07	CampAdair_120_Appendix_6_SI

200-1e
F10OR002908_01.09_0503_a



NOTES:
1) Aerial photograph (1954_3_136.tif) was obtained from the U.S. Geological Survey and is dated September 1, 1954.

N

0 1,000 2,000 4,000 Feet

REFERENCE/PROJECTION: NAD 83 UTM Zone 10N

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FIGURE L-7

HISTORICAL AERIAL PHOTO

CAMP ADAIR

Shaw Environmental, Inc.

OFFICE	DRAWN BY		DRAWING NUMBER
MRNVL	K.Masterson	03/21/07	CampAdair_121_AppendixL_7_SI

OFFICE	DRAWN BY		DRAWING NUMBER
MRNVL	K.Masterson	03/21/07	CampAdair_122_AppendixL_8_SI

NOTES:
1) Aerial photograph (1954_3_137.tif) was obtained from the U.S. Geological Survey and is dated September 1, 1954.

N

0 1,000 2,000 4,000 Feet

REFERENCE/PROJECTION: NAD 83 UTM Zone 10N

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FIGURE L-8

HISTORICAL AERIAL PHOTO

CAMP ADAIR

Shaw Environmental, Inc.

200-1e
F10OR002908_01.09_0503_a

NOTES:
1) Aerial photograph (1954_3_139.tif) was obtained from the U.S. Geological Survey and is dated September 1, 1954.

N

0 1,000 2,000 4,000 Feet

REFERENCE/PROJECTION: NAD 83 UTM Zone 10N

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FIGURE L-9

HISTORICAL AERIAL PHOTO

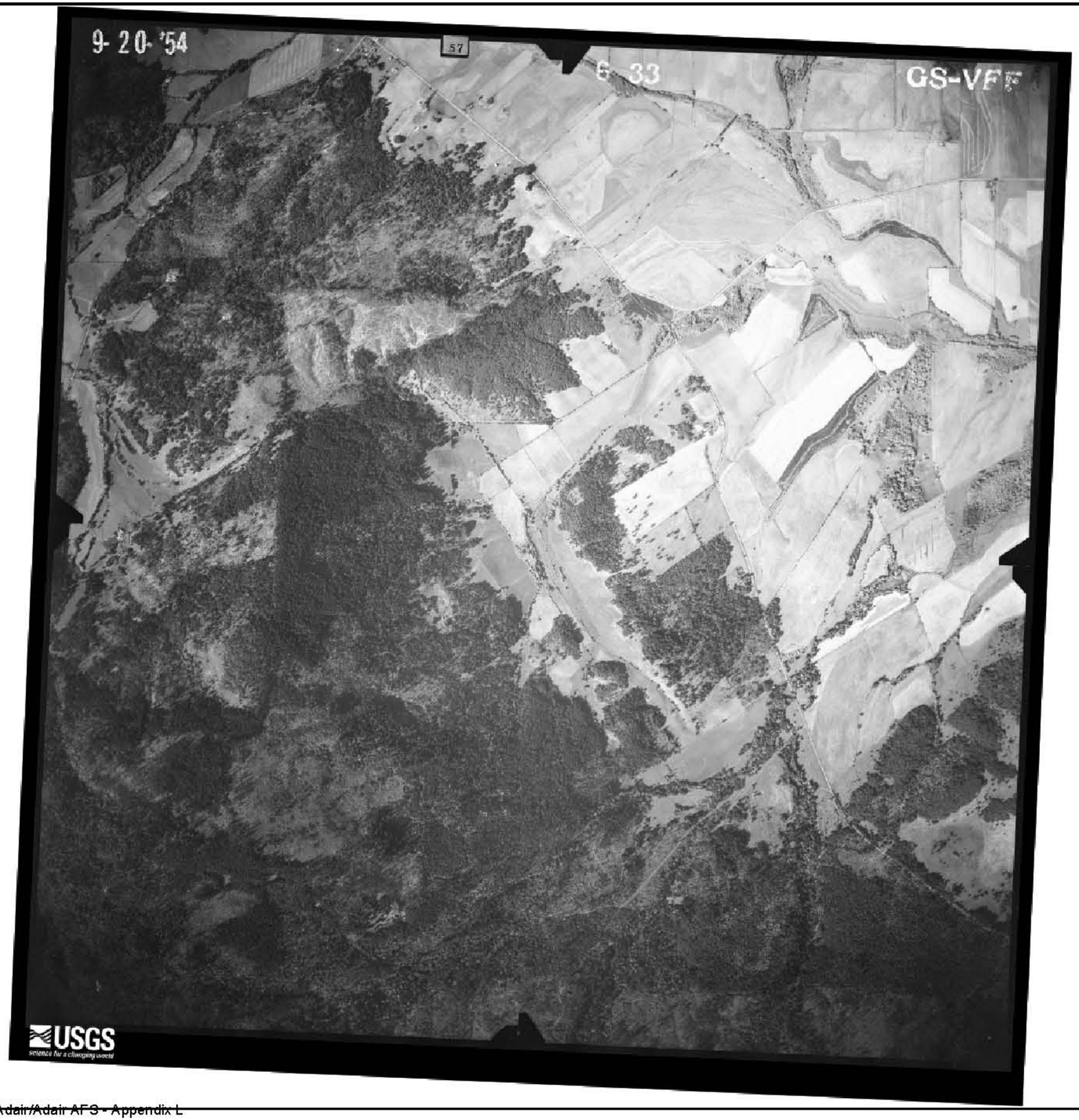
CAMP ADAIR

Shaw Environmental, Inc.

OFFICE	DRAWN BY		DRAWING NUMBER
MRNVL	K.Masterson	03/21/07	CampAdair_123_AppendixL_9_SI

200-1e
F10OR002908_01.09_0503_a

OFFICE	DRAWN BY		DRAWING NUMBER
MRNVL	K.Masterson	03/21/07	CampAdair_124_AppendixL_10_SI



NOTES:
1) Aerial photograph (1954_6_33_a.tif) was obtained from the U.S. Geological Survey and is dated September 20, 1954.

N

0 1,000 2,000 4,000 Feet

REFERENCE/PROJECTION: NAD 83 UTM Zone 10N

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FIGURE L-10

HISTORICAL AERIAL PHOTO

CAMP ADAIR

Shaw Environmental, Inc.

200-1e
F10OR002908_01.09_0503_a

OFFICE	DRAWN BY		DRAWING NUMBER
MRNVL	K.Masterson	03/21/07	CampAdair_125_AppendixL_11_SI

NOTES:
1) Aerial photograph (1954_6_34_a.tif) was obtained from the U.S. Geological Survey and is dated September 20, 1954.

N

0 1,000 2,000 4,000 Feet

REFERENCE/PROJECTION: NAD 83 UTM Zone 10N

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FIGURE L-11

HISTORICAL AERIAL PHOTO

CAMP ADAIR

Shaw Environmental, Inc.

200-1e
F10OR002908_01.09_0503_a

OFFICE	DRAWN BY		DRAWING NUMBER
MRNVL	K.Masterson	03/21/07	CampAdair_126_AppendixL_12_SI

NOTES:
1) Aerial photograph (1954_6_36_a.tif) was obtained from the U.S. Geological Survey and is dated September 20, 1954.

N

0 1,000 2,000 4,000 Feet

REFERENCE/PROJECTION: NAD 83 UTM Zone 10N

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FIGURE L-12

HISTORICAL AERIAL PHOTO

CAMP ADAIR

Shaw Environmental, Inc.

200-1e
F10OR002908_01.09_0503_a

NOTES:
1) Aerial photograph (1954_3_102_a.tif) was obtained from the U.S. Geological Survey and is dated September 1, 1954.

N

0 1,000 2,000 4,000 Feet

REFERENCE/PROJECTION: NAD 83 UTM Zone 10N

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FIGURE L-13

HISTORICAL AERIAL PHOTO

CAMP ADAIR

Shaw Environmental, Inc.

OFFICE	DRAWN BY		DRAWING NUMBER
MRNVL	K.Masterson	03/21/07	CampAdair_127_AppendixL_13_SI

200-1e
F10OR002908_01.09_0503_a

OFFICE	DRAWN BY		DRAWING NUMBER
MRNVL	K.Masterson	03/21/07	CampAdair_128_AppendixL_14_SI

NOTES:
1) Aerial photograph (1955_11_32_a.tif) was obtained from the U.S. Geological Survey and is dated May 28, 1955.

N

0 1,000 2,000 4,000 Feet

REFERENCE/PROJECTION: NAD 83 UTM Zone 10N

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OMAHA DESIGN CENTER

FIGURE L-14

HISTORICAL AERIAL PHOTO

CAMP ADAIR

Shaw Environmental, Inc.

200-1e
F10OR002908_01.09_0503_a

OFFICE	DRAWN BY		DRAWING NUMBER
MRNVL	K.Masterson	03/21/07	CampAdair_129_AppendixL_15_SI

NOTES:
1) Aerial photograph (1955_13_77_a.tif) was obtained from the U.S. Geological Survey and is dated June 7, 1955.

N

0 1,000 2,000 4,000 Feet

REFERENCE/PROJECTION: NAD 83 UTM Zone 10N

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FIGURE L-15

HISTORICAL AERIAL PHOTO

CAMP ADAIR

Shaw Environmental, Inc.