Final
Supplemental RCRA Facility Investigation
Work Plan
Parcel 6
Revision 1

Fort Wingate Depot Activity
McKinley County, New Mexico

September 4, 2026

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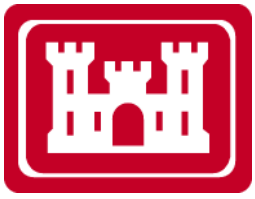

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This Supplemental Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) Work Plan describes additional investigation activities within Parcel 6 at Fort Wingate Depot Activity, McKinley County, New Mexico. This document has been prepared for submission to the New Mexico Environment Department (NMED) Hazardous Waste Bureau (HWB), as required by Section VII.F.1 of the RCRA Permit, No. NM6213820974 and in response to a Notice of Disapproval dated 4 June 2019 for Final RCRA Facility Investigation Report Parcel 6.

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Fort Wingate Depot Activity, McKinley County, NM

40 CFR 270.11

September 2026

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Cheryl Frischkorn

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NN	=	Navajo Nation
OH	=	Ohio
USACE	=	U.S. Army Corps of Engineers
USEPA	=	U.S. Environmental Protection Agency

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EXECUTIVE SUMMARY

ES.1 EXECUTIVE SUMMARY INTRODUCTION

This Supplemental Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) Work Plan was prepared by the Army for submission to the New Mexico Environment Department (NMED) Hazardous Waste Bureau (HWB), as required by Section VII.H.1.a of RCRA permit NM 6213820974 for the Fort Wingate Depot Activity (FWDA) (Permit) effective December 1, 2005, and last revised February 2015 (NMED, 2015a).

ES.2 PURPOSE AND SCOPE

The purpose and scope of this Supplemental RFI Work Plan are to:

1. Address data gaps remaining from the initial RFI fieldwork in 2011,
2. Further define the horizontal and vertical extent of soil contamination at Parcel 6,
3. Assess potential risks to human health and the environment, and
4. Provide sufficient information to conduct Corrective Measures Studies for Parcel 6.

This Supplemental RFI Work Plan contains investigative information for three solid waste management units (SWMUs) and five areas of concern (AOCs) in Parcel 6:

SWMU 8: Building 537 – Pesticide and Field Battery Shop (approximately 0.03 acre),

SWMU 11: Building 541 – Heating Plant No. 11 and Building 542 – Ammunition Workshop (approximately 0.2 acre),

SWMU 20: Western Landfill – Feature 4 (approximately 3.83 acres),

AOC 42: Building 516 – Ammunition Receiving Building (approximately 0.03 acre),

AOC 80: Feature 9 (approximately 16.9 acres),

AOC 81: Feature 11 (approximately 0.47 acre),

AOC 83: Feature 22 (approximately 3.35 acres), and

AOC 84: Feature 12 (approximately 14.2 acres).

ES.3 PROPOSED INVESTIGATIONS

Existing data have been evaluated to determine what additional field activities are required to complete characterization of the nature and extent of the soil contamination that were determined to have data gaps from the initial RFI at Parcel 6 and to address comments received from NMED, contained in the NMED disapproval letter (NMED, 2019) on the *Final RCRA Facility Investigation Report Parcel 6, Revision 1.0,* dated March 29, 2019 (U.S. Army Engineer Research and Development Center [ERDC]/U.S. Geological Survey [USGS], 2019). The 2019 RFI Report, Revision 1.0 has since been withdrawn by the Army. This Supplemental RFI Work Plan also addresses applicable comments received from NMED contained in the NMED disapproval letter

(NMED, 2018) on the *Final Permittee-Initiated Interim Measures (PIIM) Report, Parcel 6, Revision 1.0* dated July 27, 2018 (hereafter referred to as the PIIM Report). The 2018 PIIM Report, Revision 1.0 has since been withdrawn by the Army. The supplemental RFI sampling results will be combined with the initial RFI data and PIIM data, and will be presented in a new RFI Report to be submitted to NMED for review and approval. **Sections 3.0 through 10.0** evaluate existing information and present the proposed data collection activities for the individual sites to develop recommendations for further action.

Soil samples from the SWMUs/AOC listed in **Section ES.2** will be collected and analyzed for one or more of the following:

RCRA metals (including arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver),

Volatile organic compounds (VOCs),

Semi-volatile organic compounds (SVOCs),

Polycyclic aromatic hydrocarbons (PAHs),

Polychlorinated biphenyls (PCBs),

Total petroleum hydrocarbon (TPH),

Explosives,

Perchlorate,

Nitrate, nitrite, major anions,

Dioxins/furans, and

Pesticides.

Section 1.0 is an introduction to this Supplemental RFI Work Plan, **Section 2.0** provides background information for Parcel 6, **Sections 3.0 through 10.0** provide details gleaned from data obtained during previous investigations and summarizes the proposed investigation activities, **Section 11.0** describes investigation methods, **Section 12.0** describes the risk assessment process for the RFI Report, and **Section 13.0** provides the schedule. The Army will conduct the RFI activities in accordance with this Supplemental RFI Work Plan, once approved by the NMED, and the RCRA permit (NMED, 2015a).

ES.4 RISK EVALUATION

A human health risk evaluation will be performed for Parcel 6 to evaluate the potential for unacceptable risks to current and future receptors from exposure to detected constituents in soil. The human health risk evaluation will be performed in accordance with *NMED Risk Assessment Guidance for Site Investigations and Remediation, Volume 1, Soil Screening Guidance for Human Health Risk Assessments* published in November 2022 (NMED, 2022), or most current at the time of writing the risk evaluation. The risk evaluation will also comply with the requirements of Section 7.2 of Attachment 7 of the RCRA permit (NMED, 2015a), including evaluating residential land use.

NMED human health risk guidance specifies two risk thresholds used to evaluate cancer risks and

non-cancer hazards for potential receptors including residents, commercial/industrial workers, and construction workers (NMED, 2022). NMED indicates that adverse health impacts are unlikely when the incremental lifetime cancer risk is less than or equal to 1E-05 for carcinogenic analytes, and when the hazard index (HI) is less than or equal to 1.0 for non-carcinogenic analytes.

Screening values will be selected from those sources listed in Section 7.2 of Attachment 7 of the RCRA permit (NMED, 2015a) and will include NMED Human Health Screening Levels for Direct Contact and Groundwater Protection, supplemented with U.S. Environmental Protection Agency (USEPA) Regional Screening Levels (RSLs), as needed.

The conceptual site model indicates that the only current human receptors potentially exposed to soil contamination are commercial/industrial workers that may be exposed to surface soil during routine landscaping and outdoor maintenance activities. Potential future receptors include residential receptors, commercial/industrial workers, and construction workers.

The general steps for conducting the human health screening risk assessment per Section 1.3 of the *NMED Risk Assessment Guidance for Site Investigations and Remediation, Volume I, Soil Screening Guidance for Human Health Risk Assessments* (NMED, 2022) are as follows:

Step 1: Determine chemicals of potential concern (COPCs). This includes conducting a site attribution analysis and elimination of some constituents through comparison of site concentrations to background levels (Shaw Environmental, 2010 and USACE, 2013).

Step 2: Compare maximum detected site concentrations for COPCs to the direct contact soil screening levels (SSLs) for applicable receptors. If a chemical presents both carcinogenic and noncarcinogenic health toxicity, then compare to both screening levels, if available.

> If the resulting HI (sum of all hazard quotients, HQs) is less than 1.0, stop; no additional assessment for noncarcinogens is needed. Move to Step 5.
>
> If resulting cancer risk (sum of all cancer risks) is less than 1E-05, stop; no additional assessment for carcinogens is required. Move to Step 5.

Risks/hazards across all applicable pathways will be included in the comparison to NMED target levels of 1E-05 and 1. If a quantitative evaluation of VI is necessary, any risk/hazard from vapor intrusion (VI) or other site-specific pathway will be added to the summed risk/hazard calculated using the SSLs. The beef ingestion pathway will be addressed in the Uncertainty Section of the RFI Report.

Step 3: If Step 2 results in adverse risk/hazard, calculate refined exposure point concentrations (EPCs).

Step 4: Compare EPCs to the applicable SSLs for each receptor:

> If the resulting HI is less than 1.0, stop; no additional assessment for noncarcinogens is needed. Move to Step 5.
>
> If resulting cancer risk is less than 1E-05, stop; no additional assessment for carcinogens is required. Move to Step 5.

Step 5: Compare the site concentrations to the soil-to-groundwater target soil leachate concentrations (based on a dilution attenuation factor of 20). Maximum detected concentrations

should be applied first, followed by use of a refined EPC and/or site-specific data, if the initial comparison results in an exceedance of the applicable soil-to-groundwater target soil leachate concentrations.

Step 6: Discuss Uncertainties.

Step 7: If Step 4 and/or Step 5 results in excess risk/hazard or potential to impact groundwater, conduct additional site-specific refinements of the assessment and/or implement corrective actions.

A screening level ecological risk assessment will be performed for Parcel 6 to evaluate the potential for unacceptable risks to current and future ecological receptors from exposure to detected constituents in soil. The screening level ecological risk assessment will be performed in accordance with *NMED Risk Assessment Guidance for Site Investigations and Remediation, Volume II, Soil Screening Guidance for Ecological Risk Assessments*, revised in 2017 (NMED, 2017), or most current at the time of writing the risk evaluation. Ecological screening will use NMED Ecological Screening Levels (ESLs) (Attachment C, Tables C-1 through C-6, NMED, 2017). Additional sources of ecological screening values will be evaluated in the ecological risk assessment for chemicals without an NMED ESL. Screening levels that are current at the time the risk evaluation is performed will be used. The risk evaluation will also comply with the requirements of Section 7.1 of Attachment 7 of the RCRA permit (NMED, 2015a).

Analytes detected in one or more samples from the data set for each SWMU or AOC will be retained as preliminary chemicals of potential ecological concern (COPECs). Analytes that are not detected in any sample will not be retained as preliminary COPECs. A detected chemical will not be eliminated as a COPEC only because toxicity information is lacking; instead, limited or missing toxicity data will be addressed using best professional judgement, including evaluation of surrogate toxicity data from a similar chemical, and will be discussed in the uncertainty section of the RFI Report.

The ecological exposure pathway analysis considers the six groups of representative receptors identified in the NMED risk guidance (NMED, 2017): 1) plants, 2) deer mouse, 3) horned lark, 4) kit fox, 5) red-tailed hawk, and 6) pronghorn antelope. The exposure pathway analysis serves to focus the evaluation on only those receptors for which the pathway is potentially complete. Receptors for which the exposure pathway is incomplete, or for which the home range size is much greater than the size of the area being evaluated, will be eliminated from the ecological risk evaluation.

Each of the SWMUs/AOCs are smaller than 10% of the home range size for three large home range receptors; therefore, the following receptors can be eliminated from further evaluation: 1) kit fox (evaluated only for sites greater than 267 acres), 2) red-tailed hawk (evaluated only for sites greater than 177 acres), and 3) pronghorn antelope (evaluated only for sites greater than 342 acres). The NMED guidance requires plants, the deer mouse, and the horned lark to be evaluated at all sites, regardless of size. Therefore, the screening level ecological risk assessment will consider each of these three receptors.

The screening level ecological risk assessment will consist of two tiers:

> Tier 1 – Will present an initial quantitative assessment of ecological risk under the most conservative conditions (for example, maximum concentrations, minimum body weights, use of no adverse effect level [NOAEL] toxicity reference values [TRV], and other

conservative assumptions). If the Tier 1 evaluation indicates that there is a potential for adverse effects on ecological receptors, then additional evaluation following the Tier 2 process will be required.

Tier 2 – Will present a refined quantitative assessment of ecological risk that incorporates revisions to include but not limited to the exposure dose input parameters and TRVs and re-assesses ecological risk using more realistic assumptions including EPCs (95% upper confidence limit [UCL]). A lines-of-evidence discussion may also be developed as part of the Tier 2 risk evaluation.

The NMED risk guidance (NMED, 2017; Section 3.5) identifies the ecological target risk threshold as 1.0. This risk level is the threshold over which the potential for adverse effects on ecological receptors can occur and triggers additional ecological evaluation (i.e., Tier 2).

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ACRONYMS AND ABBREVIATIONS

°C	degree(s) Celsius
°F	degree(s) Fahrenheit
≤	less than or equal to
±	plus or minus
%	percent
%R	percent recovery
µg/g	microgram(s) per gram
ACM	Asbestos Containing Materials
AHA	Activity Hazard Analyses
AMEC	AMEC Foster Wheeler Environment & Infrastructure, Inc.
AMSL	above mean sea level
AOC	Area of Concern
APP/SSHP	Accident Prevention Plan / Site Safety and Health Plan
AUF	area use factor
Army	United States Department of the Army
ASTM	American Society of Testing and Materials
AUF	Area use factor
bgs	below ground surface
BRAC	Defense Base Realignment and Closure Act of 1990
BRACD	BRAC Division
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COC	Chain of custody
COPC	chemical of potential concern
COPEC	chemical of potential ecological concern
CSM	conceptual site model
CY	cubic yards
DAF	dilution attenuation factor
DDD	dichlorodiphenyldichloroethane
DDE	dichlorodiphenyldichlorethene
DDT	dichlorodiphenyltrichloroethane
DI	deionized
DL	detection limit
DoD	Department of Defense
DOI	Department of Interior
DQO	data quality objective
DRO	diesel-range organics

ACRONYMNS AND ABBREVIATIONS (CONTINUED)

EC	effect concentration
Eco-SSL	Ecological Soil Screening Level
EDD	electronic data delivery
EPC	exposure point concentration
ERDC	U.S Army Engineer Research and Development Center
ERI	Environmental Research, Inc.
ERM PMC	ERM Program Management Company
ESL	Ecological Screening Level
ESV	Ecological Screening Value
FWDA	Fort Wingate Depot Activity
g/mol	gram(s) per mole
GPS	Global Positioning System
Hg	mercury
HI	hazard index
HQ	hazard quotient
HMX	cyclotetramethylene-tetranitramine
HSA	hollow-stem auger
HWB	Hazardous Waste Bureau
ID	identification
IDW	investigation-derived waste
IRM	interim remedial measures
ISM	incremental sampling methodology
LANL	Los Alamos National Laboratory
LBP	lead-based paint
LCS	laboratory control sample
LOAEL	Lowest observed adverse effect level
LOQ	limit of quantitation
MCL	maximum contaminant level
MEC	munitions and explosives of concern
mg/kg	milligram(s) per kilogram
mg/L	milligram(s) per liter
MI	multi-incremental
mL	milliliter(s)
mm	millimeter(s)
MPPEH	Material Potentially Possessing an Explosive Hazard
MS	matrix spike

ACRONYMNS AND ABBREVIATIONS (CONTINUED)

MSD	matrix spike duplicate
N/A	not applicable
N3B	Newport News Nuclear BWXT-Los Alamos, LLC
NM	New Mexico
NMED	New Mexico Environment Department
NOAEL	no adverse effect level
NOD	Notice of Disapproval
NRCS	Natural Resources Conservation Service
OB/OD	Open Burning/Open Detonation
ORO	oil range organics
oz	ounce(s)
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
PDF	portable document format
Permit	RCRA Permit NM 6213820974 for the FWDA
PID	photoionization detector
PIIM	Permittee-Initiated Interim Measures
PPE	personal protective equipment
QA	quality assurance
QC	quality control
QSM	Quality Systems Manual
RCRA	Resource Conservation and Recovery Act
RDX	Hexahydro-1,3,5-trinitro-1,3,5-triazine
RI	Remedial Investigation
RI/FS	Remedial Investigation/Feasibility Study
RFI	RCRA Facility Investigation
RPD	relative percent difference
RSL	Regional Screening Level
SDG	sample delivery group
SEDD	Staged Electronic Data Deliverables
SIM	selected ion monitoring mode
SLERA	screening level ecological risk assessment
SLHQ	screening level hazard quotient
SL-SSL	soil leachate-based SSL
SSHO	Site Safety and Health Officer
SSL	Soil Screening Level

ACRONYMNS AND ABBREVIATIONS (CONTINUED)

SVOC	semi-volatile organic compound
SWMU	Solid Waste Management Unit
TAL	Target Analyte List
TCDD	2,3,7,8-tetrachlorodibenzo-p-dioxin
TCL	Target Compound List
TCLP	toxicity characteristic leaching procedure
TEAD	Tooele Army Depot
TEF	toxicity equivalency factor
TEQ	toxicity equivalent
TNT	trinitrotoluene
TPH	total petroleum hydrocarbons
TPL	TPL, Incorporated
TRV	toxicity reference values
TSCA	Toxic Substances Control Act of 1976
UCL	upper confidence limit
U.S.	United States
USACE	United States Army Corps of Engineers
USATHAMA	U.S. Army Toxic and Hazardous Materials Agency
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UTL	upper tolerance limit
UXO	unexploded ordnance
VI	vapor intrusion
VOA	volatile organic analysis
VOC	volatile organic compound
WQCC	NM Water Quality Control Commission
WWI	World War I
WWII	World War II

1.0 INTRODUCTION

This Supplemental Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) Work Plan describes the additional investigation activities to be completed within Parcel 6 at Fort Wingate Depot Activity (FWDA), in McKinley County, New Mexico (**Figures 1.1 and 1.2**).

This Supplemental RFI Work Plan has been prepared by the Army for submission to the New Mexico (NM) Environment Department (NMED) Hazardous Waste Bureau (HWB), as required by Section VII.H.1.a of the RCRA Permit NM 6213820974 for the FWDA (Permit), which became effective December 31, 2005, and was most recently modified in February 2015 (NMED, 2015a).

This Supplemental RFI Work Plan describes the additional investigation activities to be completed based on NMED comments received in the Notice of Disapproval (NOD) letter dated June 4, 2019 on the *Final RCRA Facility Investigation Report, Parcel 6, Revision 1.0*, dated March 29, 2019 (United States [U.S.] Army Engineer Research and Development Center [ERDC]/U.S. Geological Survey [USGS], 2019). The 2019 RFI Report, Revision 1.0 has since been withdrawn by the Army. This Supplemental RFI Work Plan also addresses applicable comments received from NMED contained in the NMED disapproval letter (NMED, 2018) on the PIIM Report. The 2018 PIIM Report, Revision 1.0 has since been withdrawn by the Army. Responses to the NMED disapproval letters are provided in **Appendix A**. The supplemental RFI sampling results will be combined with the initial RFI data and PIIM data, and will be presented in a new RFI Report to be submitted to NMED for review and approval. The RFI Report will also incorporate methodologies from the latest NMED Risk Assessment Guidance for Site Investigations and Remediation (NMED, 2017 and 2022).

1.1 PURPOSE AND SCOPE

The purpose of this Supplemental RFI Work Plan is to propose additional sampling activities and methodology in selected areas within Parcel 6 to determine if a release has occurred, and, if so, to determine the nature and extent of contamination and whether contaminants are present in quantities that could pose a risk to human and ecological receptors. The Supplemental RFI is designed to address additional sampling requirements and to address additional sampling recommended in comments received from the NMED contained in NMED disapproval letters (NMED, 2018 and 2019). The NMED disapproval letters and army responses are included in **Appendix A.**

The scope of this Supplemental RFI includes:

- Address data gaps identified in the NMED disapproval letters (NMED, 2018 and 2019),
- Collect surface soil and subsurface soil samples for analysis at the solid waste management units (SWMUs) and areas of concern (AOCs),
- Assess potential risks to human health and the environment, and
- Provide sufficient information to complete the RFI Report for Parcel 6.

1.2 PARCEL 6 BACKGROUND INFORMATION

Complete background information regarding FWDA and Parcel 6 is provided in numerous documents previously submitted to NMED, including the following:

Final Historical Information Report, Parcel 6, Fort Wingate Depot Activity, McKinley County, New Mexico (herein referred to as the Historical Information Report, CH2M Hill, 2009);

Final NMED Revised RCRA Facility Investigation Work Plan, Parcel 6, Fort Wingate Depot Activity, McKinley County, New Mexico (hereafter referred to as the RFI Work Plan, U.S. Army Corps of Engineers [USACE], 2011). The RFI Work Plan was approved by NMED in a letter regarding *Approval with Modification, RCRA Facility Investigation Work Plan for Parcel 6, Fort Wingate Depot Activity*, dated August 19, 2011 (NMED, 2011); and

Final Permittee-Initiated Interim Measures (PIIM) Work Plan, Parcel 6, Revision 1.0, Fort Wingate Depot Activity, McKinley County, New Mexico (hereafter referred to as the PIIM Work Plan, AMEC, 2015). The PIIM Work Plan was approved by NMED in a letter regarding *Approval with Modifications, Permittee-Initiated Interim Measures Work Plan, Parcel 6, Fort Wingate Depot Activity, McKinley County, New Mexico*, dated May 29, 2015 (NMED, 2015b).

The Historical Information Report (CH2M Hill, 2009) provides a listing of site surveys, data compilation efforts, operational history, site or facility drawings, and environmental investigations that have been contained in previously completed reports and are pertinent to sites now considered to be within Parcel 6. Additionally, the Historical Information Report summarizes findings and conclusions from the relevant historical site investigation efforts.

The FWDA installation has been divided into reuse parcels as part of the planned property transfer to the U.S. Department of the Interior (DOI). **Figure 1.2** presents a Parcel Location Map showing the location of Parcel 6. **Figure 1.3** presents a location map of SWMUs and AOCs for Parcel 6.

According to the most recent reuse plan (DOI, 2005), Parcel 6 planned reuse is commercial holding zone. The Permit (NMED, 2015a) and Historical Information Report (CH2M Hill, 2009) list a total of 4 SWMUs and 10 AOCs located within the boundary of Parcel 6 (**Figure 1.3**), as follows:

SWMU 4: Building 600 – Ammunition Work Shop Area Change House and Laundry,

SWMU 8: Building 537 – Pesticide and Field Battery Shop,

SWMU 11: Building 541 – Heating Plant No. 11 and Building 542 – Ammunition Workshop,

SWMU 20: Western Landfill – Feature 4,

AOC 28: Igloo Block B,

AOC 42: Building 516 – Ammunition Receiving Building,

AOC 61: Building 507 – Smokeless Powder Magazine,

AOC 75: Electrical Transformers,

AOC 78/82: Feature 18,

AOC 79: Feature 2,

AOC 80: Feature 9,

AOC 81: Feature 11,

AOC 83: Feature 22, and

AOC 84: Feature 12.

The Western Landfill is predominantly located in Parcel 7 but is partially located in Parcel 6 and has therefore been included with the Parcel 6 investigation activities. AOCs and SWMUs with the designation of "Feature" denote areas identified during aerial photographic analysis that were retained for additional future investigation (Environmental Research, Inc. [ERI], 2006).

Characterization activities for the RFI were conducted from May 2011 through June 2011, in accordance with the NMED approved RFI Work Plan (USACE, 2011). Activities for the RFI were detailed in an RFI Report which was disapproved by NMED in a disapproval letter dated June 4, 2019 (NMED, 2019). Field activities for the PIIM were performed from October 2015 through January 2018 in accordance with the NMED approved PIIM Work Plan (USACE, 2015). Activities for the PIIM were presented in the PIIM Report which was disapproved by NMED on November 7, 2018 (NMED, 2018), and has since been withdrawn by the Army. The investigation activities described in this Supplemental RFI Work Plan have been developed to address data gaps as well as comments received from NMED.

Based on the results of the initial RFI, the PIIM, and comments from NMED, three SWMUs and five AOCs require additional investigation:

SWMU 8: Building 537 – Pesticide and Field Battery Shop,

SWMU 11: Building 541 – Heating Plant No. 11 and Building 542 – Ammunition Workshop,

SWMU 20: Western Landfill – Feature 4,

AOC 42: Building 516 – Ammunition Receiving Building,

AOC 80: Feature 9,

AOC 81: Feature 11,

AOC 83: Feature 22, and

AOC 84: Feature 12.

The following corrective measures for SWMUs and AOCs are not addressed in this Supplemental RFI Work Plan:

SWMU 4 – Building 600 - Ammunition Work Shop Area Change House and Laundry. Based on the results of the soil investigation conducted in accordance with the approved RFI Work Plan (USACE, 2011), the Army recommended no further action at SWMU 4.

AOC 28 – Igloo Block B. Additional site characterization and sampling to address comments in the NMED disapproval letter (NMED, 2019) are being addressed in a separate RFI Work Plan for all the igloos and revetments at FWDA. Recommended corrective measures will be addressed in corrective measures work plans submitted following completion of the RFIs.

AOC 61 – Building 507 - Smokeless Powder Magazine. Based on the results of the soil investigation conducted in accordance with the approved RFI Work Plan (USACE, 2011), the Army recommended no further action at AOC 61. Note that Attachment 8 of the RCRA permit (NMED, 2015a) currently lists AOC 61 as belonging to Parcel 21; however, AOC 61 has historically been addressed as part of Parcel 6 and was included in the approved RFI Work Plan (USACE, 2011) for Parcel 6.

AOC 75 – Electrical Transformers. Based on the results of the soil investigation conducted in accordance with the approved RFI Work Plan (USACE, 2011), the Army recommended no further action at AOC 75.

AOC 78/82 – Feature 18. The NMED in their letter titled *Second Notice of Disapproval RCRA Facility Investigation Work Plan for Parcel 6, FWDA, FWDA-08-001* (NMED, 2010b) concurred with the Army that no further characterization is necessary at AOC 78 and 82 in the letter's comment number 6. AOCs 78 and 82 have been petitioned for removal from the Permit via Army letter dated February 8, 2011. All information on AOCs 78 and 82 was included in the RFI Work Plan (USACE, 2011) and will not be presented in this work plan.

AOC 79 – Feature 2. The NMED in their letter titled *Notice of Disapproval RCRA Facility Investigation Work Plan for Parcel 6, FWDA, FWDA-08-001* (NMED, 2010a), comment 33, concurred with the Army that AOC 79 required no further characterization. The Army response to this NOD is found in Appendix N of the RFI Work Plan (USACE, 2011). All information on AOC 79 was included in the approved RFI Work Plan (USACE, 2011) and will not be presented in this work plan.

The actions included in this Supplemental RFI Work Plan are expected to complete the RFI process for Parcel 6, with the exception of the deferred corrective actions required at the SWMUs/AOCs that are summarized in **Table 1.1**.

2.0 BACKGROUND

This section provides a general description of FWDA, site conditions, and summarizes previous investigations at Parcel 6 as documented in the approved *Final Historical Information Report, Parcel 6* (CH2M Hill, 2009), and the approved *Final NMED Revised RCRA Facility Investigation Work Plan, Parcel 6* (USACE, 2011).

2.1 GENERAL DESCRIPTION

The FWDA installation is located approximately eight miles east of Gallup, New Mexico, and currently occupies approximately 15,277 acres of land in McKinley County, New Mexico. **Figure 1.1** presents a Regional Map showing the location of FWDA. The installation is almost entirely surrounded by federally owned or administered lands, including both national forest and tribal lands. The installation can be divided into several sub areas based on their location and historical land use. The major land use areas include the following:

The Administration Area – encompassing approximately 800 acres in the northern portion of the installation, which contains former office facilities, housing, equipment maintenance facilities, warehouse buildings, and utility support facilities.

The Workshop Area – encompassing approximately 700 acres to the south of the Administration Area consisted of an industrial area containing ammunition maintenance and renovation facilities, the trinitrotoluene (TNT) washout facility, and the TNT leach beds area. The buildings and other structures were demolished in 2010.

Ten Munitions Storage Areas (Igloo Blocks A through H, J, and K) – encompassing approximately 7,400 acres in the central portion of the installation. This area has 732 earth-covered magazines (igloos) and 241 earthen revetments previously used for the storage of munitions.

The Open Burning/Open Detonation (OB/OD) Area – encompassing approximately 1,800 acres in the west-central portion of the installation, which is separated into two sub areas based on the period of operation, the Closed OB/OD Area and the Current OB/OD Area (which is subject to active remediation).

Protection and Buffer Areas – encompassing approximately 4,050 acres located adjacent to the eastern, western, and northern installation boundaries, which consists of buffer zones surrounding the former magazine and demolition areas.

The FWDA installation (the installation) was originally established by the U.S. Army in 1862 at the southern edge of the Navajo territory. In 1918, the mission of FWDA changed from tribal activities to World War I related activities. Beginning in 1940, FWDA's mission was primarily to receive, store, maintain, and ship explosives and military munitions, as well as to disassemble and dispose of unserviceable or obsolete explosives and military munitions. In 1975, the installation came under the administrative command of Tooele Army Depot (TEAD), located near Salt Lake City, Utah.

In January 1993, the active mission of FWDA was ceased, and the installation was closed as a result of the Defense Base Realignment and Closure Act of 1990 (BRAC). Beginning in 2002, the Army reassigned many FWDA functions to the BRAC Division (BRACD), including caretaker

duties, property transfer, and performance of environmental compliance and remediation activities. Command and control responsibilities were retained by TEAD until January 31, 2008, when these responsibilities were transferred to White Sands Missile Range.

The installation is currently undergoing environmental characterization and restoration activities prior to final property transfer and reuse. Since the 1980s, when FWDA became subject to Permit requirements, it has transferred 8,351 acres to the U.S. DOI.

2.2 SITE CONDITIONS

2.2.1 Climate

FWDA is located within the southern portion of the Colorado Plateau, in the Northwestern Plateau climate division of New Mexico. This region overall has a semiarid continental climate, and alternates seasonally and topographically from hot and dry, to cool and wet. Average annual precipitation for Gallup, New Mexico and the surrounding area is approximately 12-inches of rainfall; the average snowfall amount is 35 inches. Most precipitation occurs during monsoon season from July through October, with minimal precipitation in the spring and late fall (U.S. Climate Data, 2019).

Average seasonal temperatures vary by elevation and topographic features, with the hottest temperatures occurring in the lower elevations (northern area) in the spring and summer months, and the lowest temperatures occurring in the higher elevations in the winter. The maximum temperature in 2019 was recorded in August as 97 degrees Fahrenheit (°F), with the lowest temperature recorded in February as -12.8°F, giving an overall range across the year of 109.8°F. Temperature fluctuations within FWDA can also vary from sunrise to sunset as much as 20°F, particularly in the late winter to early spring months.

2.2.2 Topography

Topography and surface water features facility-wide are shown in **Figure 2.1**. Parcel 6 topography is shown in **Figure 2.2.**

Topographically, FWDA may be divided into three areas: (1) the rugged north-to-south trending Hogback along the western and the southwestern boundaries; (2) the northern hillslopes of the Zuni Mountain Range in the southern portion; and (3) the alluvial plains marked by bedrock remnants in the northern portion of the installation. The Hogback area is formed by interbedded Mesozoic sedimentary rocks dipping sharply to the west and is dissected by northeastern-trending intermittent streams. During rainfall and snowmelt events, streams transport sediment to low-lying areas in the northern part of the installation, creating an extensive alluvial deposit among remnants of bedrock. The streams eventually discharge to the South Fork of the Puerco River near the northern boundary of FWDA.

The elevation of FWDA ranges from approximately 8,200 feet above mean sea level (AMSL) in the south to 6,660 feet AMSL in the north. Main drainages, following the topography, flow from south to north and discharge to the South Fork of the Puerco River. However, many tributaries follow the regional trend, flowing from southwest to northeast. Because of the nature of precipitation in this semi-arid region, the surface drainage is relatively shallow near headwaters. Downward erosion intensifies as the stream moves downstream, resulting in a system of well-developed steep-walled arroyos. Arroyos form because of the erodibility of localized areas of silt-

and clay-rich bedrock.

The topographic contours for the land within Parcel 6 are shown in **Figure 2.2** and illustrates that this parcel is relatively flat with higher elevations in the south. Surface runoff during rainfall/snowmelt events collects in arroyos that flow only during precipitation events or pools locally in low areas where it evaporates or infiltrates. No surface water bodies exist within Parcel 6.

2.2.3 Vegetation/Habitat

The regional climate supports Ponderosa Pine and mixed fir forests above 7,500 feet and predominantly piñon and juniper forests from 6,800 to 7,500 feet; shrubs and grasses dominate below 6,800 feet (Roberston et al., 2013). The vegetation cover for Parcel 6 includes moderate grasslands, sagebrush, and piñon-juniper woodlands. Parcel 6 provides habitat for antelope, prairie dogs, rattlesnakes, field mice, various other insects and animals, and occasionally mountain lions and bear. Wetland environments and aquatic habitats do not occur in Parcel 6.

2.2.4 Soils

The soils found on the installation are similar to those occurring in cool plateau and mountain regions of New Mexico. The major soil types at FWDA are variants/complexes of sands, loams, clays, and rocks. These soils are relatively thin, and the parent bedrock is either at or near the surface in more than a quarter of the installation. Natural Resources Conservation Service (NRCS) soils mapping for Parcel 6 is shown in **Figure 2.3**.

As shown in **Figure 2.3**, there are five types of soil for Parcel 6. Soils are generally as follows from south to north: Evpark-Arabrab Complex, Aquima-Hawaikuh Silt Loam, Ojocal-Venaditio Complex, Ojocal Silt Loam, and Zia Sandy Loam. A rock outcrop of the Rizno-Tekapo Complex is present in the southeastern portion of Parcel 6.

2.2.5 Geology

In 1997, geologic mapping of portions of FWDA and a fracture trace analysis were conducted by the USGS located in Flagstaff, Arizona. Geologic units exposed at the ground surface throughout much of FWDA were identified. Results of this identification, combined with information from geologic literature, are presented below to provide a detailed description of the geologic and stratigraphic setting of the portion of FWDA in which Parcel 6 is located.

2.2.5.1 Stratigraphy

FWDA is underlain primarily by Triassic mudstone and sandstone layers that dip gently to the northwest. In the western and southern portions of the installation, however, Jurassic and Cretaceous sandstone and claystone layers are exposed along the Nutria Monocline (the Hogback), which is a steeply west dipping, north trending monoclinal fold.

Quaternary alluvial sediments cover nearly all of the land area in Parcel 6 (**Figure 2.4**). The alluvial deposits in Parcel 6 are underlain by the Triassic-age Petrified Forest Formation, which comprises greater than 75 percent of the bedrock exposed at the surface throughout the FWDA. The Quaternary alluvial sediments consist predominately of silts and clays, with discontinuous bodies of sand and some areas of gravel. Wind and water cause extensive soil erosion, especially where vegetative cover is absent. The Petrified Forest Formation underlying the sediments consists primarily of mudstone, claystone, and minor amounts of muddy sandstone. The Painted Desert

Member of the Petrified Forest Formation is exposed at the ground surface on the areas of higher ground surface elevations located along the southwest portion of Parcel 6.

The Petrified Forest Formation is divided into three members with the upper and lower members divided by a middle member consisting of a relatively thick, continuous sandstone layer (Sonsela Sandstone Member). A stratigraphic column and description of the various lithologic units in the FWDA area is presented in **Figure 2.5**. The upper Painted Desert Member and the lower Blue Mesa Member each consist of mudstone, siltstone, sandy-mudstone, and lenticular sandstone layers. Sandstone lenses within the Painted Desert and Blue Mesa Members are thin (generally less than 20 feet thick), laterally discontinuous, and contain high quantities of very fine, muddy matrix. As a result, the apparent permeability of these lenses, and the Painted Desert and Blue Mesa Members as a whole, are very low. The Sonsela Sandstone Member (the middle member of the Petrified Forest Formation) is of variable thickness (20 to 80 feet thick) and is laterally continuous. This unit is a clean, well-sorted, quartzose sandstone that contains very small amounts of matrix and therefore has a high apparent permeability.

The Moenkopi Formation, the San Andres Limestone, and the Glorieta Sandstone underlie the Blue Mesa Member. The lower Petrified Forest Formation and the Moenkopi Formation comprise 250 to 300 feet of mudstones and sandstones with a relatively low apparent permeability. These units are underlain by approximately 100 feet of the San Andres Limestone which is underlain by approximately 120 feet of the Glorieta Sandstone.

2.2.5.2 Structural Geology

Bedrock underlying the majority of the FWDA installation dips gently to the northwest at an angle of approximately 5 degrees. The structural orientation of the bedrock substantially influences the movement of ground water. The ground water flow gradient across the installation is primary to the north-northwest, generally following the structural dip of the geologic units.

2.2.6 Hydrogeologic Conceptual Model

The hydrogeologic conceptual model that has been developed for the northern portion of FWDA is based on previous investigations conducted in the areas of the installation described as the TNT Leaching Beds and the Administration Area. This conceptual model has been developed based on data collected during various investigations performed over a 25-year period prior to issuance of the Permit. Generally, the objective of the prior investigations was the characterization of impacts to groundwater on a larger scale. Specifically, these investigations included a primary focus on impacts associated with discharges at the TNT Leaching Beds (part of SWMU 1), and a secondary focus on impacts associated with releases from various locations within the Administration Area. At the time the data were collected and the conceptual model was developed, the current system of dividing the FWDA into parcels, SWMUs, and AOCs was not in place. Therefore, the conceptual model uses broader terminology, such as TNT Leaching Beds and Administration Area, to describe areas of the FWDA installation and the associated hydrogeologic properties. The SWMUs within Parcel 6 are generally located within this broader “TNT Leaching Beds and the Administration Area” area of the installation. The Parcel 6 AOCs are located further south of the primary area that has been investigated as part of the TNT Leaching Beds and Administration Area. However, the AOCs of Parcel 6 have similar Quaternary alluvial material as the overlying unconsolidated geologic material and are underlain by similar Triassic-age geologic units.

A summary of the basic hydrogeologic model for the FWDA installation is presented in the

following subsections.

2.2.6.1 Water Bearing Zones with the Shallow Unconsolidated Alluvium

The unconsolidated alluvium consists of a series of interbedded silt, clay, and sand Quaternary sediments ranging from near zero feet to almost 100 feet in thickness. These sediments form a wedge that increases in thickness from south to north through the TNT Leaching Beds and Administration Area study area. The thickest sediments are found near the Rio Puerco. The low permeability mudstone and siltstones of the Petrified Forest Formation are the bedrock that generally underlies the unconsolidated materials.

In the TNT Leaching Beds area adjacent to Parcel 6 two water-bearing zones have been identified within the unconsolidated materials. These zones are referred to as the first unconsolidated water-bearing zone and the second unconsolidated water-bearing zone. Where present, the first and second water bearing zones are separated by a clay layer which is present between two thin, poorly graded sand deposits. Groundwater is typically encountered in each of these sand deposits, thus comprising the first and second water-bearing zones. However, the sand deposits and clay layer are not laterally extensive. In areas where the clay layer is absent a single water-bearing zone is present, which is then defined as the first unconsolidated water-bearing zone. In locations where the permeable sand intervals are absent, sustainable water-bearing zones are typically not present within the unconsolidated alluvium. The unconsolidated alluvial sediments tend to pinch out near outcrops and in areas of near-surface bedrock surfaces, acting to limit the areal extent of the shallow unconsolidated water-bearing units in these areas.

Groundwater in the unconsolidated sediments is derived from the infiltration and percolation of rain and snow-melt that moves downward through these sediments until it reaches the relatively low-permeability Triassic bedrock surface or one of the permeable sand units that define the first and second water-bearing zones. Groundwater flow is generally considered to be to the northwest within the Parcel 6 area. Wells that are applicable to Parcel 6 are located primarily within the western portion of the Workshop area and the southeastern portion of Parcel 6 (**Figure 2.6**).

2.2.6.2 Water-Bearing Zones with Bedrock Units

The Parcel 6 area is largely underlain by low permeability claystone bedrock with little water bearing capacity. However, discrete intervals of interbedded sandstone do provide a series of geologic materials that can be potential water-bearing zones. Previous investigations have indicated that the first encountered thin sandstone unit within the massive Painted Desert claystone interval may occur at approximately 80 to 110 feet below ground surface (bgs) but tends to be thin and discontinuous. This unit typically does not yield sufficient ground water to be regularly monitored with a groundwater monitoring well. Additionally, the claystone above and below the sandstone interval is largely dry, indicating little vertical movement of groundwater between intervals within this largely claystone sequence of rock. Despite being laterally discontinuous and not yielding sustainable water production, this interval is referred to as the “first sandstone water-bearing zone.”

At depths of slightly over 100 feet bgs and ranging to nearly 200 feet bgs, another stratigraphically lower sandstone interval is present within the massive claystone. This layer yields more appreciable and sustainable amounts of groundwater. This interval is referred to as the “second sandstone water-bearing zone.” However, the claystone intervals above and below the second sandstone water-bearing zone are also largely dry, again suggesting little vertical movement of

water occurs within the geologic unit.

A series of groundwater monitoring wells have been installed in association with investigations of the TNT Leaching Beds. Additional groundwater monitoring wells were later installed to assess possible groundwater impacts from Buildings 542 and 600. Wells that are applicable to Parcel 6 are located primarily within the western portion of the Workshop area and the southeastern portion of Parcel 6 (**Figure 2.6**). Findings from these monitoring wells have generally verified that the extent of unconsolidated water-bearing zones in the Parcel 6 area that are capable of yielding sustainable groundwater is limited. Additionally, the first sandstone water bearing zone does not extend far enough to the west to be consistently observed in the Parcel 6 SWMU area. Groundwater is encountered within the second sandstone water-bearing zone in the Parcel 6 SWMU area. However, in the area of the Parcel 6 SWMUs, the bedrock groundwater elevations within the groundwater monitoring wells suggest that the groundwater in different areas may be static and have small gradients to drive groundwater flow (Eco & Associates, 2023 [Figures 4-3 and 4-4]).

2.3 PREVIOUS INVESTIGATIONS SUMMARY

The environmental remediation process has been underway for more than 30 years at FWDA. In 1980, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) guidelines began to guide environmental remediation activities at FWDA other than those in the OB/OD Area, with the U.S. Environmental Protection Agency (USEPA) Region 6 as the lead regulatory agency. In 1996, the NMED was granted regulatory authority under RCRA and became the lead regulatory agency for the site. Activities are currently performed under the Permit issued in 2005 and revised in February 2015 (NMED, 2015a).

Available historical information from prior investigations for FWDA sites that lie within what is now identified as Parcel 6 have been compiled and summarized in a Historical Information Report (CH2M Hill, 2009) that serves as a companion to the approved RFI Work Plan (USACE, 2011). The Historical Information Report provides a listing of site surveys, data compilation efforts, operational history, site or facility drawings, and environmental investigations that have been contained in previously completed reports and that are pertinent to sites now considered to be within Parcel 6. Additionally, the Historical Information Report summarizes findings and conclusions from the relevant historical site investigation efforts. Summaries of prior environmental investigations pertinent to the Parcel 6 sites are also provided in the individual sections for the Parcel 6 SWMUs and AOCs.

The RFI field work began on May 3, 2011, and concluded on June 15, 2011, in accordance with the RFI Work Plan (USACE, 2011). The RFI Work Plan was approved by NMED HWB in an Approval with Modifications dated August 19, 2011. The PIIM field work was conducted from October 2015 to January 2018, in accordance with the PIIM Work Plan (USACE, 2015). The PIIM Work Plan was approved by NMED in an Approval with Modifications dated May 29, 2015. The RFI and PIIM results are summarized in this Supplemental Work Plan and presented in **Appendix B**. The RFI and PIIM data will be used, in conjunction with data obtained as part of this Supplemental RFI, to complete the RFI Report.

Between 2015 and 2018, FWDA conducted remediation activities to remove soil impacted with lead at AOC 28 - Igloo Block B and soil impacted with polychlorinated biphenyls (PCBs) and semi-volatile organic compounds (SVOCs), specifically polycyclic aromatic hydrocarbons (PAHs), at SWMU 8 - Former Building 537 to levels that would be protective of a future residential

land use scenario, as required by Attachment 7 of the Permit (NMED, 2015a). The removal and disposal activities of surface debris at Feature 4 (SWMU 20: Western Landfill) and fluids and batteries from the locomotive was also completed under the PIIM.

The regulatory history for the PIIM work at Parcel 6 is summarized below:

- The PIIM Work Plan, Parcel 6, Revision 1.0, dated May 4, 2015 (USACE, 2015) and was approved by NMED (with modifications) on May 29, 2015.
- Field activities were performed between October 2015 and May 2016.
- The PIIM Report for Parcel 6 was initially submitted on October 26, 2016. It included a cumulative risk evaluation for human receptors for the direct contact pathway.
- NMED issued a disapproval letter regarding the PIIM Report on August 21, 2017. The letter required additional confirmation sampling and evaluation of the soil to groundwater pathway and ecological receptors.
- In response to the disapproval letter, additional confirmation sampling activities and subsequent soil removal activities were performed between October 2017 and January 3, 2018.
- The PIIM Report was revised in 2018, following completion of the field activities. The report was revised to incorporate the additional activities and sample results, and to update the risk evaluation as required by NMED in the August 2017 disapproval letter.
- NMED issued a disapproval letter regarding Revision 1.0 of the PIIM Report on November 7, 2018. The letter required additional confirmation sampling and risk evaluation.
- The Army submitted a letter to NMED on September 25, 2025, requesting the withdrawal of the PIIM Report. NMED subsequently approved the withdrawal request on September 30, 2025.

Site-specific information from previous investigations at SWMUs/AOCs within Parcel 6 is in **Sections 3.0 through 10.0** of this Supplemental RFI Work Plan.

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3.0 SWMU 8 – BUILDING 537 (PESTICIDE AND FIELD BATTERY SHOP)

This section summarizes the background, previous investigations, data gaps, the preliminary conceptual site model (CSM), and provides details on the proposed RFI Supplemental sampling for the SWMU 8: Building 537 - Pesticide and Field Battery Shop.

3.1 BACKGROUND

3.1.1 Location, Description, and Operational History

Building 537 was located on the east side of Arterial Road No. 2, northwest of Building 530 (former Deactivation Furnace) and south of the Workshop Area and is shown on **Figure 3.1**. Building 537 was constructed in 1941 and is a 4,200 square-foot brick structure with a reinforced concrete floor and basement (FWDA, 1961 and Daniel, 1994). Building 537 had a septic tank west of the railroad tracks with an outfall to the arroyo prior to the building's connection to the FWDA sanitary sewer system (PMC, 2004).

This building was originally designated as a field battery shop and was used to charge and service batteries for forklifts and portable lights (PMC, 2004). The building originally had electrical charging equipment that was reported to have historically leaked. This equipment, as well as the forklift hydraulics, may have contained PCBs. More recently the building was used to mix and store pesticides (mostly insecticides), in leak-proof containers (PMC, 2004). Documentation was not located regarding specific dates of historic operations at Building 537. Approximately 50 gallons of chlordane were formerly stored in this building, but was disposed of prior to 1988 (PMC, 2004). In addition, the Building 537 site was one of the FWDA locations where a transformer leaked onto the ground (PMC, 2004). The building had been utilized by TPL, Incorporated (TPL), for munitions component recovery and recycling purposes.

Historical reports also indicate a small (approximately 12 feet wide by 17 feet long) foundation slab was located approximately 50 feet east of Building 537 (TtNUS, 2000 and PMC, 2004) as shown in the RFI Work Plan (USACE, 2011 [Figure 6-3]). The foundation slab had a center drain that discharged, via a 6 inch-diameter vitrified clay pipe, to an earthen ditch between Building 537 and the slab (PMC, 2004). The foundation slab also had two abandoned ¾ inch-diameter water lines on its western edge (PMC, 2004). However, no information has been found in any Army records to identify this foundation slab or its operations. It is expected that this former slab may have been part of a wash rack related to the forklift battery charging operations. Forklifts or their batteries may have been washed at this location prior to servicing and forklift hydraulics may have contained PCBs. Aerial photographs from 1948 and 1952 show this feature, but due to the resolution of these photos it is unclear if this area is a building or just the slab. An aerial photograph from 1958 shows a slab. This slab was removed in 2004 as part of PCB containing soil excavation activities (PMC, 2004).

These areas are the subject of the previous and current investigations.

3.1.2 Surface and Subsurface Conditions

The SWMU 8 area is generally flat, and the vegetative cover consists mostly of grass and

sagebrush. A small drainage feature begins immediately to the south of Building 537 and then drains first to the east of the building and then in a northerly direction (USACE, 2011 [Figure 6-3]). A small culvert previously existed between Building 537 and a small slab to the east of Building 537. Historical photographs provided in the RFI Work Plan (USACE, 2011 [Photographs 6-1 through 6-6]) show various views of Building 537.

Subsurface infrastructure at SWMU 8 includes interior sewer lines and electrical utilities associated with Building 537. No as-built drawings were located in the historical documentation that show the location of the subsurface utilities, but it is known that the sanitary sewer and electrical utilities enter on the north side of Building 537. Building 537 has a basement crawlspace and the sanitary sewer and electrical utilities should be visible from the basement. The location of these utilities will be verified during the proposed field activities associated with this SWMU.

The general location of subsurface utilities adjacent to Building 537 is shown in the RFI Work Plan (USACE, 2011 [Figure 6-3]). Historically, Building 537 had a 4 inch-diameter vitrified-clay drain line that discharged directly to an arroyo approximately 450 feet west of the building prior to its connection to the sanitary sewer line located approximately 20 feet west of the building. The sanitary sewer line also serviced four other facilities (Buildings 527, 528, 536, and 600), all carrying sewage to the FWDA sewage treatment plant located in the Administration Area.

The SWMU 8 area is underlain by unconsolidated alluvium to depths of at least 7 feet bgs, as determined during excavation activities (PMC, 2004). No groundwater wells have been installed at SWMU 8. Based on the nearest monitoring well (TMW14A, located in Parcel 21, see **Figure 2.6**) to SWMU 8, depth to groundwater ranges from 62.41 to 64.32 feet bgs (Eco & Associates, 2023 [Table 4-1]).

3.2 PREVIOUS INVESTIGATIONS

Several soil investigations have been conducted at SWMU 8, as discussed in this section. While no groundwater characterization specific to SWMU 8 has been performed to date, groundwater is being addressed on a facility-wide level.

3.2.1 Nonsampling Data

Previous nonsampling data includes aerial imagery from 1935, 1948, 1952, 1958, 1962, 1966, 1973, 1978, 1985, 1991, 1993, and 1997 (ERI, 2006). Building 537 is first visible in the 1948 aerial photo and persists in all subsequent years' photos. Interpretation of the aerial imagery did not identify any significant findings that would indicate activities different from those understood to be the operational history at the site. However, aerial imagery did indicate areas of light-toned material near Building 537 in the area south of the loading dock and to the east of the building. These areas, described as light-toned material, are actually paved areas.

3.2.1.1 Final Report Installation Assessment

The Final Report Installation Assessment (U.S. Army Toxic and Hazardous Materials Agency [USATHAMA], 1980) indicates that pesticides were stored in leak-proof containers in a well-ventilated area with concrete floors at Building 537. Chlordane (water emulsifiable); chlordane (dust); malathion (dust); aerosol synergized pyrethrin insect repellent (Dursban M) (water emulsifiable); calcium cyanide (cyanogas-dust); and the rodenticide bait anticoagulants PMP (also referred to as Valone or 2-isovaleryl-1,3-indandione) and Warfarin are listed as pesticides

previously used at the FWDA and stored in Building 537.

Other nonsampling data include historical drawings and maps available for Building 537 (USACE, 2011).

3.2.2 Sampling Data

Previous investigation phases have been completed at SWMU 8 and are summarized below. RFI and PIIM sampling locations are shown on **Figure 3.1**. Locations of samples collected at SWMU 8 prior to the 2011 RFI are presented in the RFI Work Plan (USACE, 2011 [Figure 6-3]).

3.2.2.1 Final Asbestos Survey Report, Volume II, Book 1

The *Final Asbestos Survey Report, Volume II, Book 1* (Pickering Environmental, 1990) includes results of an asbestos containing materials (ACM) investigation completed at various FWDA buildings. Results indicated that ACM was present in approximately 50 linear feet of insulated pipe in the basement crawlspace at Building 537.

3.2.2.2 BRAC Remediation Projects (Phase I), PCB Remediation Soil Removal Buildings 536/537

During investigation activities conducted under the installation-wide remedial investigation/feasibility study (RI/FS), PCB-impacted soils were identified under an electrical transformer at Building 537 (CCC Group, 1996). As a result, in 1996 the Army conducted a performance-based disposal action under the Toxic Substances Control Act of 1976 (TSCA). Approximately 45 cubic yards (CY) of soil from underneath the former transformer platform adjacent to the building were removed. However, post-excavation samples indicated that elevated PCB concentrations remained in place at the site.

3.2.2.3 Final Remedial Investigation/Feasibility Study & RCRA Corrective Action Program Document

Investigation at this site was initially conducted as part of this installation-wide RI/FS (ERM Program Management Company [ERM PMC], 1997). The objectives of the RI/FS were to determine if the surface soils around the building had been impacted by the pesticide handling operations and to determine whether contamination was present in a concrete pit located within the building basement. Six surface soil samples were collected around the exterior of the building. Eight wipe samples were collected from various surfaces within the building and basement. One sample of the sediment and one sample of the water within the concrete pit in the building basement were collected. All samples were analyzed for pesticides. Concentrations of multiple pesticide compounds including chlordane, heptachlor, heptachlor epoxide, dichlorodiphenyldichloroethane (DDD), dichlorodiphenyldichlorethene (DDE), dichlorodiphenyltrichloroethane (DDT), endrin, endrin aldehyde, lindane, alpha-benzenehexachloride, and delta-benzenehexachloride were detected in almost all samples. Some concentrations exceeded applicable screening levels at the time this report was prepared. However, despite the presence of pesticides in and around Building 537, the site was not carried through to the baseline risk assessment performed as part of the RI/FS. This was because the exterior soil concentrations were determined to present a limited potential for exposure and the interior results were deferred to separate consideration once the disposition of the buildings was decided.

3.2.2.4 Summary of Sampling and Analysis Event to Delineate PCB Contamination, Buildings 536 and 537

Aroclor 1260 was detected in excavation post-removal samples from 1996. In 1997, the FWDA performed additional soil sampling for PCBs at the former transformer platform. The FWDA concluded that subsurface soils under the former transformer platform contained PCBs at concentrations greater than the most conservative TSCA cleanup level of 1 microgram per gram (µg/g), and that additional excavation was warranted (USACE, 1997).

In 1998, the FWDA removed an additional 245 CY of PCB-impacted soils from the former transformer platform area. PCBs were not detected in any of the confirmatory samples and the site was backfilled with clean soil (CCC Group, 1998).

3.2.2.5 Environmental Baseline Survey for the Transfer of Lands at Fort Wingate Depot Activity, New Mexico

The *Environmental Baseline Survey for the Transfer of Lands at Fort Wingate Depot Activity, New Mexico* (USACE, 2000) provides a physical description of Building 537, and it states that PCBs had been detected near two utility poles but that the contaminated soils had been remediated. The report also indicated that further investigation would be required for evaluating pesticide contamination around the immediate exterior of the building. Friable ACM was abated in 1999. The potential presence of lead-based paint (LBP) was assumed.

3.2.2.6 Final Release Assessment Report

In October 2000, surface soil and sediment samples were collected from the Building 537 septic system. One sediment sample was collected from the septic tank (ST-B537-001). No water sample was collected from the septic tank because at the time of sampling the septic tank was dry. One surface soil sample was collected in the area where the septic tank outfall would have occurred (ST-B537-002 at 0.5 feet bgs). The location of the outfall could not be verified during the field investigation; therefore, the sample was collected at the presumed location of the outfall. Another sample was collected 10 feet downgradient of the presumed outfall sample location (ST-B537-003 at 0.5 ft bgs). One sediment sample was collected from the sediments contained in the manhole just north of the Building (ST-B537-004). Soil samples were analyzed for TAL metals, SVOCs, pesticides, and PCBs. Sediment samples were analyzed for pH, TAL metals, VOCs, SVOCs, pesticides, and PCBs. Metals were detected in all four samples. PAHs were detected in one sample (ST-B537-001). Aroclor 1260 was detected in both sediment samples (ST-B537-001 and ST-B537-004). In 2000, supplemental sampling was performed in areas adjacent to Building 537 to further evaluate potential environmental impacts from past operations, focusing on the pesticide storage and mixing operations as well as field battery shop operations (TtNUS, 2000). The investigation activities at Building 537 consisted of field screening for chlordane followed by the collection of confirmation samples using SW-846 Method 4041 to determine the extent of chlordane contamination around Building 537. Additionally, eleven surface soil locations were sampled. A total of fifty-nine (59) soil samples were field screened. Chlordane was detected in 13 samples at concentrations ranging from 9.15 to 82.2 milligram per kilogram (mg/kg). Aroclor 1260 was detected at four locations (water valve box, small foundation slab, near the southeast access door, and in the septic tank sediment) around Building 537. The source of PCBs in soil at these locations was not documented.

3.2.2.7 Field Investigation Report, Building 537

Several of the specific objectives outlined in the Soil Characterization Work Plan (PMC, 2003) were not completed due to funding limitations. Activities that were not completed included excavation of approximately 260 CY of PCB-impacted soil, delineation of pesticides and metals, and decommissioning of the septic tank at Building 537.

According to the *Field Investigation Report for Building 537* (PMC, 2004), activities that were completed during this phase of work included review of historical drawings, "hot spot" removal of approximately 100 CY of PCB-impacted soil, and removal of 21.3 tons of concrete, including the small building foundation slab to the east of Building 537. Excavated waste was disposed of at a chemical waste landfill. The total in-place volume of soils originally calculated for removal based on test kit results was 383 CY, but funding limitations did not allow the entire volume to be removed at this time. Instead, a focused "hot spot" removal action was completed, with excavation depths ranging from 1 to 7 feet bgs. PCBs were not detected exceeding 1 mg/kg in any of the final, before-confirmatory samples, and the site was backfilled with clean soil. Interim measures (straw bales) have been maintained around the remediated area to prevent recontamination. According to this report, approximately 260 CY of PCB-impacted soil remain in place at Building 537. The implementation of further interim remedial measures (IRM) was placed on hold awaiting issuance of the RCRA Permit.

3.2.2.8 2011 RCRA Facility Investigation

SWMU 8 contained Building 537, which was demolished by PIKA in the fall of 2010, and the septic tank was removed. Soil sampling was conducted after demolition. Soil sampling at SWMU 8 was conducted to evaluate the presence of environmental impacts from site operations. Based on operational history, the chemicals of potential concern (COPCs) for SWMU 8 are RCRA metals, volatile organic compounds (VOCs), SVOCs, pesticides, and PCBs. The potential contaminant sources associated with SWMU 8 are potential undocumented historical releases of hazardous substances to the surface or subsurface soils as a result of historical operations at this site. The sources of contamination at the site are pesticide handling and storage operations in the building and PCBs from former transformer and forklift operations.

Fifteen borings were advanced in the areas surrounding Building 537 by USGS personnel to evaluate the possibility of a release from past operations (**Figures 3.1 and 3.3**). Previous investigations indicated high concentrations of PCBs and pesticides in the vicinity of Building 537, but the vertical and horizontal extent of contamination had not been defined. These borings were advanced to aid in determining what additional corrective measures may be necessary at the SWMU 8. Borings were advanced to approximately 5 feet bgs with analytical samples collected at the 0- to 1-foot and 4- to 5 feet bgs intervals. Additionally, soil borings 0608B537-SB01 and 0608B537-SB05 were advanced to drilling refusal since the water table was not encountered prior to refusal. One analytical sample was collected from the bottom of each borehole.

One soil boring (0608B537-SB14) was advanced at the presumed location of the former discharge point of the 6-inch diameter vitrified clay pipe that discharged from the former foundation slab located approximately 50 feet east of Building 537 (**Figure 3.3**). The former foundation slab may have been used as a wash rack for the forklifts. The area near the foundation slab and 6-inch pipe have been excavated therefore the boring was located based on the presumed location of this site feature. Soil samples were collected at from the following depth intervals: 4-5 feet, 14-15 feet, and

24-25 feet bgs. Boring 0608B537-SB14 was advanced to depth of refusal (27 feet bgs) since the water table was not encountered prior to drilling refusal.

One soil boring (0608B537-SB15) was advanced at the former septic line discharge point near the arroyo. Soil samples were collected from the following depth intervals: 4-5 feet, 9-10 feet, and 19-20 feet bgs in addition to 29.5- 30.5 feet bgs at the bottom of the borehole (**Figure 3.1**). Boring 0608B537-SB15 was advanced to the depth of refusal (31 feet bgs) since the water table was not encountered prior to this depth.

Discrete soil samples were collected from the 15 soil borings at SWMU 8 to define the vertical and horizontal extent of soil contamination (**Figures 3.1 through 3.3**). All samples were analyzed for: VOCs (via SW8260B); SVOCs (via SW8270C); RCRA metals (via SW6010B and 7471A); pesticides (via SW8081); PCBs (via SW8082); explosives (via SW8330B); and perchlorate (via SW6850). Additionally, soil boring 0608-SB14 was analyzed for total petroleum hydrocarbon (TPH) oil range organics (ORO) (via SW8015). Results are provided in **Appendix B (Tables B.3-2 through B.3-8**.

3.2.2.9 Permittee-Initiated Interim Measures

Between 2015 and 2018, FWDA conducted remediation activities to remove soil impacted with PCBs and PAHs at SWMU 8 with the goal of attaining contaminant concentrations protective of a future residential land use scenario, as required by Attachment 7 of the Permit (NMED, 2015a). Based upon the PCB and PAH concentrations discovered during previous sampling activities at SWMU 8, the removal area was divided into approximately 10-foot by 10-foot grid sections. Further, the grid sections were grouped into six separate excavation areas (Areas A, B, C, D, E, and F). Each grid section was excavated to depths up to 5 feet bgs. Activities at Former Building 537 (SWMU 8 - Former Building 537) began on October 14, 2015, and were completed on January 17, 2018. Approximately 490 CY of soil impacted with PCBs and SVOCs/PAHs was excavated at SWMU 8. The final PIIM removal areas at SWMU 8 are shown in **Figures 3.1 through 3.3**. Confirmation sampling results are provided in **Appendix B (Tables B.3-9 and B.3-10)**.

3.3 DATA GAP ASSESSMENT

Existing data have been evaluated to determine what additional field activities are required to complete characterization of the nature and extent of the soil contamination that were deemed to have data gaps from the initial RFI at Parcel 6 and to address comments received from the NMED contained in a Notice of Disapproval (NOD) dated June 4, 2019 (NMED, 2019). These NMED disapproval comments were addressed as part of this Supplemental RFI Work Plan and will be incorporated into the RFI Report. In accordance with NMED Comment 9 of the disapproval letter (NMED, 2019), this Supplemental RFI Work Plan does not compare data collected prior to March 20, 2011, to soil screening levels (SSLs) nor presents these historical data locations on figures.

3.3.1 Nature and Extent Evaluation

The nature and extent of contamination is based on the initial RFI results and the PIIM confirmation soil sampling results provided in **Appendix B (Tables B.3-2 through B.3-10)**. Previous RFI and PIIM sampling locations are shown on **Figures 3.1 through 3.3**. In accordance with the Permit (NMED, 2015a; Attachment 7), the nature and extent of contamination at Parcel 6 will be delineated to the NMED Residential Direct Contact SSLs, or background values, if higher.

PCBs were detected above NMED Human Health Direct Contact SSLs (NMED, 2022) in soil confirmation samples collected during the PIIM at SWMU 8 (0608B537CEC-01D-SO, B537DEC05-0.0-0.5D-SO, 0608B537AEC-07D-SO, and 0608B537CEC-16D-SO). All four sample locations were excavated. Subsequent confirmation samples (0608B537AEC-11D-SO, 0608B537AEC-12D-SO, 0608B537CEC04-0.0-0.5D-SO, 0608B537CEC05-0.0-0.5D-SO, 0608B537CEC-17D-SO and 0608B537CEC-18D-SO) were either non-detect for PCBs or below NMED Human Health Direct Contact SSLs (with a maximum detected concentration of 2.1 mg/kg for Aroclor 1260 at 0608B537CEC05-0.0-0.5D-SO).

No PAHs exceeding NMED Human Health Direct Contact SSLs (NMED, 2022) were detected in the SWMU 8 confirmation samples. Benzo(a)pyrene was detected at confirmation sample location 0608B537BEC-0.0-0.5D-SO-2017 at a concentration (0.68 mg/kg) that exceeded the previous NMED (2015) SSL of 0.153 mg/kg. This location was excavated in 2018 in accordance with the PIIM Work Plan (NMED, 2015b).

NMED's Comment 26 of the disapproval letter (NMED, 2019) indicated that surface soil samples at a depth below 0-1-foot ground surface were not collected from borings 0608B537-SB14 and 0608B537-SB15. Since both PCBs and pesticides may remain in the shallow soils, surface soil samples should have been collected.

3.3.2 Data Gap Summary

The following data gap has been identified for SWMU 8, Building 537:

Nature and extent of contaminants has not been evaluated in the 0.0-1.0 foot bgs depth interval at locations of borings 0608B537-SB14 and 0608B537-SB15.

Potential releases from the septic drain line extending from Building 537 have not been adequately investigated.

3.4 PRELIMINARY CONCEPTUAL SITE MODEL

There is potential for receptors to be exposed to contamination remaining from historical activities conducted at FWDA. The potential for exposure varies across Parcel 6 because it contains a mix of developed and open spaces that will support different types of land use. Current land use is as an out-of-use military installation undergoing remediation where the receptors could include commercial/ industrial workers and construction workers. The properties are anticipated to be transferred to other entities, and therefore, future use by residents, commercial/industrial workers, and construction workers is possible. However, the Permit (NMED, 2015a; Attachment 7) requires that future residential land use be evaluated to support unrestricted future land use by the Army or other future owner, which includes both adult and child receptors.

The preliminary CSM for SWMU 8 was prepared in accordance with the human health risk assessment guidance (NMED, 2022) and is shown on **Figure 3.4**. The primary source of potential contaminants is from the battery shop. The primary release mechanism is leaks, drips, and spills to the ground surface. Secondary sources of potential contaminants are surface soils. Transport mechanisms may include wind erosion from contaminated surface soils, plant uptake and grazing, leaching and infiltration to subsurface soil, volatilization of contaminants in surface soil to air, infiltration and leaching to groundwater, and stormwater runoff and erosion of surface soil to

surface water and sediment. No groundwater wells have been installed at SWMU 8; however, TMW14A, TMW16, and TMW17 are located downgradient. Based on the nearest monitoring well (TMW14A, located in Parel 21) to SWMU 8, depth to groundwater ranges from 62.41 to 64.32 feet bgs (Eco & Associates, 2023 [see Table 4-1]). Groundwater does not discharge to surface water. There are no year-round surface water bodies. Therefore, the surface water/sediment exposure pathways are incomplete.

The primary media of concern being addressed by this Supplemental RFI Work Plan are surface and subsurface soil. Potential exposure pathways are direct contact (including dermal contact, incidental ingestion, and inhalation of dust or particulates) and the soil leaching to groundwater pathways.

SWMU 8 is a smaller site (0.03 acre). Current human receptors include commercial/industrial workers. SWMU 8 has the potential to support future residential use, commercial/industrial use, and construction workers. The beef ingestion pathway is considered incomplete because SWMU 8 is less than two acres in size. Residential land use will be evaluated for this property to comply with the Permit requirements and to support unrestricted future land use by the Army or other future owner.

The groundwater exposure pathway is incomplete for current receptors. The groundwater exposure pathway is potentially complete for future hypothetical residents. Groundwater is assumed to be used as drinking water until it can be demonstrated that an alternate source of drinking water is readily available to replace groundwater as the primary drinking water source.

The ecological preliminary CSM is discussed in **Section 12.2.5**. SWMU 8 (0.03 acre) is smaller than 10% of the home range size for three large home range ecological receptors; therefore, they were eliminated from further evaluation: 1) kit fox (evaluated only for sites greater than 267 acres), 2) red-tailed hawk (evaluated only for sites greater than 177 acres), and 3) pronghorn antelope (evaluated only for sites greater than 342 acres). The NMED guidance requires plants, the deer mouse, and the horned lark to be evaluated at all sites, regardless of size. Therefore, the ecological risk evaluation will consider each of these three receptors. The following exposure pathways are potentially complete as illustrated on **Figure 12.1**:

- Plant roots in direct contact with contaminated soil,
- Deer mouse and horned lark exposed via dermal contact with soil and incidental ingestion of contaminated soil, and
- Deer mouse and horned lark exposed via ingestion of prey items through the food web.

While inhalation is a possible exposure route for ecological receptors, inhalation is considered an insignificant exposure pathway when compared to ingestion and dermal contact.

3.5 PROPOSED SUPPLEMENTAL RFI SAMPLING STRATEGY

Data quality objectives (DQOs) have been developed consistent with the USEPA DQO process. The overall project DQO is to provide representative, repeatable, high-quality data in order to complete the RFI process for Parcel 6. DQOs specific to SWMU 8 are presented in **Table 3.1**. A summary of the proposed samples, sample analysis, and QC sample counts are summarized in **Table 3.2**. Proposed sampling locations are shown on **Figure 3.5.**

The approach to address data gaps is presented in the following paragraph:

To address Comment 26 of the disapproval letter (NMED, 2019), one soil sample will be collected at the locations of borings 0608B537-SB14 and 0608B537-SB15. Samples will be collected from 0.0 to 1.0 feet bgs (0608B537-SB14-0.0-1.0D-SO and 0608B537-SB15-0.0-1.0D-SO on **Figure 3.3**) at each location and analyzed for SVOCs (via Method SW8270E), PAHs (via Method SW8270E-selected ion monitoring mode [SIM]), explosives (via SW8330B), RCRA metals (via SW6020B and 7471B), PCBs (via SW8082A), pesticides (via SW8081B), and TPH-ORO (via SW8015D).

To investigate potential releases from the inactive septic drain line associated with former Building 537, three samples will be collected at depths of 2.0, 5.0, and 10.0 feet below the bottom of the septic line from each of six soil borings (0608B537-SB16 through 0608B537-SB21), as shown on **Figure 3.5**. The bottom of the septic line is assumed to be 10 feet bgs; however, this depth will be confirmed in the field and sample depths adjusted appropriately. In addition, soil cores of the soil borings will be screened with a photoionization detector (PID), and if an elevated reading of the PID is identified, an additional soil sample will be collected from that depth interval as well. Furthermore, if the highest PID reading is identified at the proposed termination depth of 10 feet below the bottom of the manhole or septic line, additional samples will be collected in 10-foot intervals until PID readings decrease, or bedrock or groundwater is encountered to delineate the vertical extent of the contamination. Samples will be analyzed for VOCs (via SW8260B); SVOCs (via SW8270E); PAHs (via SW8270E-SIM); nitrate, nitrite, major anions (via SW9056A); RCRA metals (via SW6020B and 7471B); explosives (via SW8330B); PCBs (via SW8082A); pesticides (via SW8081B); and TPH-ORO (via SW8015D).

Following the data collection and analysis per **Section 11.0**, data will be evaluated as described in **Section 12.0**.

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4.0 SWMU 11 – BUILDING 541 (HEATING PLANT NO. 11) AND BUILDING 542 (AMMUNITION WORKSHOP)

This section summarizes the background, previous investigations, data gaps, the preliminary CSM, and provides details on the proposed Supplemental RFI sampling for SWMU 11, Building 541 Heating Plant No. 11 and Building 542 Ammunition Workshop.

4.1 BACKGROUND

4.1.1 Location, Description, and Operational History

Former Buildings 541 and 542 were located in the far western portion of the Workshop Area and are shown on **Figure 4.1**. Both buildings were demolished in the fall of 2010. Representative photographs provided in the RFI Work Plan (USACE, 2011 [Photographs 7-1 through 7-6]) indicate various views of Building 541 and 542. SWMU 11 has been previously listed as combined SWMU 13F (Building 542) and SWMU 47 (Building 541). Building 542 (formerly designated as Building 19) was a former ammunition packing, shipping, and receiving building. Building 542 was constructed in 1942 and is an approximately 7,600-square-foot brick structure with a reinforced concrete floor. Loading docks were present on both sides of the building and each are approximately 10 feet wide and 181 feet long. A railroad spur was located adjacent to the east loading dock. A bermed, blast shield structure was located north of Building 542 (USACE, 2011).

Records regarding building operations indicate that over time a variety of ammunition maintenance, modification, and demilitarization operations were performed at Building 542 (PMC, 2002). Building 542 had, at various times during its operation, discharged wastewater to a cesspool, a septic tank, drain field, and, in later years, to the sanitary sewer system. A former employee indicated that munitions had been steamed and/or washed on the loading dock, and that the water was allowed to spill onto the dock in an area that is still stained (PMC, 2002). Building 542 was used by TPL for ammunition component recovery and recycling purposes. TPL has also operated a cyclotetramethylene-tetranitramine (HMX) recovery system in Building 542 (PMC, 2002). A metal building was installed off the north corner of Building 542 to support the contractor's operations.

Building 541 was also constructed in 1942, and it was a 600-square-foot brick structure with a reinforced concrete floor. Building 541 was listed as a heating plant that contained a boiler system that provided heat for Building 542. There were no other listed or apparent operations associated with Building 541. There was a sump in the east corner of Building 541 with a piping run exiting the sump to the north through the building foundation. The piping appeared to be the boiler heating lines running to Building 542 (USACE, 2011).

Based on the explosives handling operational history at Building 542, the primary COPCs at this site are explosives. The boiler operations in Building 541 do not suggest hazardous materials or waste containing COPCs were specifically handled or otherwise stored in that building. Metals, VOCs, and SVOCs have also been detected during previous investigations at SWMU 11 and are therefore COPCs.

4.1.2 Surface and Subsurface Conditions

The SWMU 11 area is generally flat. From the edge of the asphalt parking/loading area on the western side of Building 542, the land surface slopes away to the west to an undeveloped field. The land to the east of Building 542 along the eastern loading dock and railroad siding also is generally flat. The parking/loading area between Buildings 542 and 541, which is located to the south, is generally flat as well. The ground surface to the north of Building 542 slopes upward to a hill that overlooks the building. The areas immediately surrounding Building 542 are paved on the western and southern sides and unpaved on the eastern side. The vegetative cover outside the parking/loading areas consists mostly of grass and sagebrush (USACE, 2011).

Subsurface infrastructure present includes the drain lines in Building 542 and the connections to the discharge lines that connected to the cesspool, septic system, and sanitary sewer. The septic system is located southwest of Building 541 and is comprised of a concrete septic tank and the associated drain field that has a 100-foot-long pipe that exits the septic tank with four clay drain pipe laterals, each roughly 200 feet long, that extend to the northwest (USACE, 2011).

Buildings 541 and 542 are slab on-grade structures; therefore, there are no other subsurface structures aside from utilities associated with the building. Sampling that has been conducted at the site confirms that the site is underlain by unconsolidated alluvium to depths of at least 20 feet bgs (USACE, 2011). Based on the nearest monitoring wells (TMW18 and TMW19, see **Figure 2.6**) to SWMU 11, depth to groundwater ranges from 40.19 to 56.15 feet bgs (**Eco & Associates, 2023 [Table 4-1]**).

4.2 PREVIOUS INVESTIGATIONS

Several soil investigations have been conducted at SWMU 11, as discussed in this section.

4.2.1 Nonsampling Data

Aerial imagery from 1935, 1948, 1952, 1958, 1962, 1966, 1973, 1978, 1985, 1991, 1993, and 1997 was reviewed and documented in ERI (2006). Buildings 541 and 542 are first visible in the 1948 aerial photo and persist in all subsequent years' photos.

Beginning with the 1948 photo and continuing through the 1973 photo, the aerial imagery interpretation describes various features as structures, fill areas, excavations, and bermed areas north of Building 542. In association with its original construction, a bermed blast shield was constructed on the north side of Building 542 because of the explosives handling operations within the building. The land surface north of Building 542 slopes upward to form the bermed backside of the blast shield north of Building 542. A dirt road curves up and around the higher ground. Currently there are no excavated areas or depressions located north of Building 542 nor are there records to indicate historic operations of that sort in this area. It is possible that the aerial photo interpretation inaccurately identified the construction scars associated with original construction of the blast shield as excavations or fill areas and carried that same interpretation through subsequent years' photos. Furthermore, the aerial photo interpretation may have incorrectly interpreted the sloped sides of the topographically higher area north of Building 542 as berms seemingly surrounding a depression.

Site reconnaissance conducted as part of the Phase I RFI confirmed the presence of the various interior floor drains. Visual inspection inside Building 542 indicated visible staining in one of the rooms in the vicinity of a floor drain and air compressor. Exterior inspection of the loading docks

also indicated staining; however, the source of the staining was not obvious. The location of the cesspool, the arroyo outfall, and the septic tank that had served Building 542 were all verified, and the structures were still intact (USACE, 2011).

Other nonsampling data includes historical drawings and maps available for Buildings 541 and 542 (CH2M Hill, 2009 and USACE, 2011).

4.2.2 Sampling Data

Previous investigation phases have been completed at SWMU 11 and are summarized below. RFI sampling locations are also shown on **Figure 4.1**. Locations of samples collected at SWMU 11 prior to the 2011 RFI are presented in the RFI Work Plan (USACE, 2011 [Figures 7-2 and 7-3]).

4.2.2.1 Final Asbestos Survey Report

The *Final Asbestos Survey Report, Volume II, Book 1* (Pickering Environmental, 1990) includes results of an ACM investigation completed at various FWDA buildings. Results indicated that ACM was present on approximately 35 linear feet of insulated pipe and 48 square feet of boiler head insulation at Building 541. Results indicated that ACM was present in approximately 400 square feet of floor tile at Building 542. ACM was abated in 1999 (USACE, 2000).

4.2.2.2 Environmental Baseline Survey for the Transfer of Lands at Fort Wingate Depot Activity, New Mexico

The *Environmental Baseline Survey for the Transfer of Lands at Fort Wingate Depot Activity, New Mexico* (USACE, 2000) provides a physical description of Buildings 541 and 542. This report states that ACM has been verified at Building 541, it is assumed to contain LBP, and no supporting documentation was found to suggest PCB contamination. Results indicate the presence of ACM in Building 542 was verified, LBP was assumed, and that explosives had been detected in a nearby groundwater well (CH2M Hill, 2009).

4.2.2.3 Site Summary Report for Area of Concern Septic Tanks

The *Site Summary Report for Area of Concern Septic Tanks* (CH2M Hill, 2009 [Appendix D.1]) provides a summary and evaluation of the environmental investigations for septic tank sites at FWDA. Facility drawings for Building 542 showed both a cesspool with arroyo outfall and a septic tank with a drain field prior to the building's connection to the FWDA sanitary sewer system. Both the septic tank and the cesspool with outfall were observed in the field. The septic tank is partially buried at the base of a bank 300 feet southwest of the building. The cesspool is located in the flat area southwest of the building, and is a square open-jointed stone pit, 8 feet by 8 feet in size, with a surface depth of approximately 7 feet bgs and a reported total depth of 17 feet bgs. The cesspool was almost completely uncovered; therefore, its contents and condition were easily observed. The bottom was dry. Both the inlet and outlet pipes were observed and appeared to be clean. The building had restroom facilities and also had a deluge system for fire suppression.

An investigation of this building including the septic system was conducted in November and December of 2000. Sediment samples 542CESSED01, 542OUTSED01, 542SEPSED01 were collected from the cesspool, outfall, and septic tank, respectively, and analyzed for TCL VOCs, TCL SVOCs, TAL metals, and explosives. Sediment sample concentrations were all below applicable soil screening levels. The cesspool was filled in. The water and a portion of the sediment were pumped from the septic tank and disposed. Some sediments remain. However, based on

concentrations of constituents, the sediment may remain where it is. The septic tank was filled in and abandoned. Abandonment of the cesspool and septic tank was documented in a letter to the NMED on June 15, 2001 (CH2M Hill, 2009).

4.2.2.4 Phase 1 RCRA Facility Investigation Report for Buildings 600 and 542

Phase 1 RFI investigation activities at Building 542 were conducted in 2000 and 2001. Building 542 was identified as a potential source for the low concentrations of RDX detected in groundwater samples collected from well TMW11. Phase 1 RFI investigation activities included:

- Reviewing historical facility information including engineering drawings;
- Conducting a walkthrough of the building;
- Advancing soil borings; and
- Collecting surface and subsurface soil, sediment, and water samples.

During a walkthrough of the building, petroleum-like staining was observed in Room 5 which contains toilet connections, wash basins, central floor drains, a single shower, and an air compressor. The staining observed near the floor drain and air compressor. The east loading dock had a stained area covering approximately 20 feet of the dock surface extending to the ground surface. Additionally, some staining was observed on the west loading dock.

Phase 1 RCRA Facility Investigation Soil Data (2000 and 2001)

Previous investigative activities were performed at SWMU 11 as part of a Phase 1 RFI conducted in 2000 and 2001. The RFI activities at Building 542 focused on investigating the discharge points associated with the various drain lines from the building, as well as evaluation on and around the building loading docks. This investigation was conducted to determine if there had been releases to the environment from housekeeping practices.

Four wipe samples were collected from stained or discolored areas on the east loading dock and were analyzed for explosives (USACE, 2011 [Figure 7-2]). One explosive, HMX, was detected in one wipe sample. Four surface soil samples (TKEDCK01 through TKEDCK04) were collected adjacent to the stained areas observed on the east loading dock and were tested for TNT and RDX using immunoassay test kits, indicative of explosives. Neither TNT nor RDX were detected in the surface soil samples. To further investigate this area, a single soil boring (542ELD01 in USACE, 2011 [Figure 7-2]) was advanced adjacent to the east loading dock to a depth of 10 feet. Samples were collected from 3 to 5 feet bgs and 8 to 10 feet bgs. The samples were analyzed for explosives, Target Analyte List (TAL) metals, Target Compound List (TCL) VOCs, and TCL SVOCs. Two explosives, HMX and hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX), were detected at low concentrations in the soil samples. Additionally, the VOC toluene was detected at qualified concentrations, and between 11 and 18 SVOCs were detected at low or qualified concentrations. Numerous metals were also positively detected, generally at low or qualified concentrations. The analytical data for those positively detected compounds in soil boring 542EDL01 are presented in the RFI Work Plan (USACE, 2011 [Table 7-1]).

Four wipe samples were collected from the west loading dock (USACE, 2011 [Figure 7-2]). One explosive, HMX, was detected in two of the wipe samples. Four surface soil samples (TKWDCK01 through TKWDCK04) were collected near the western loading dock, adjacent to

the western edge of the pavement near the dock at topographically low areas. These samples were tested for TNT and RDX using immunoassay test kits, indicative of explosives. Neither TNT nor RDX were detected in the surface soil samples. Because the results of the immunoassay test kits on the surface soil samples at the west loading dock were not indicative of explosives, no boring was advanced.

To investigate the building's cesspool, four soil borings (542CES01 through 542CES04) were advanced adjacent to the cesspool with hollow-stem auger (HSA) drilling (USACE, 2011 [Figure 5-3]). The borings were advanced to a depth of 20 feet bgs, which was three feet below what was indicated to be the bottom of the cesspool (17 feet deep bgs) based on original drawings (CH2M Hill, 2009 [Appendix D.1]). During the site reconnaissance, the depth to the surface of the cesspool was confirmed to be roughly 7 feet bgs. Soil samples from each boring were collected from 4 to 6 feet bgs and 18 to 20 feet bgs and were analyzed for explosives, TAL metals, TCL VOCs, and TCL SVOCs. The VOCs acetone and toluene and the SVOC bis (2-ethylhexyl) phthalate were detected at qualified concentrations. Several metals were detected at generally low or qualified concentrations. The analytical data for those positively detected compounds are presented in the RFI Work Plan (USACE, 2011 [Table 7-1]).

One soil sample was collected from inside the cesspool and analyzed for explosives, TAL metals, TCL VOCs, and TCL SVOCs. This sample contained the VOC methylene chloride and eight SVOCs at qualified concentrations, as well as several metals at generally low or qualified concentrations. No explosive compounds were detected in the sample. The analytical data for those positively detected compounds are presented in the RFI Work Plan (USACE, 2011 [Table 7-1]). At the conclusion of the sampling, the cesspool was abandoned in place.

One surface soil sample was collected immediately downslope from the location of the cesspool outfall and analyzed for explosives, TAL metals, TCL VOCs, and TCL SVOCs. The VOC methylene chloride and several metals were detected at generally low or qualified concentrations. No explosive compounds were detected in the sample. The analytical data for those positively detected compounds are presented in the RFI Work Plan (USACE, 2011 [Table 7-1]).

One sludge sample from inside of the septic tank was collected and analyzed for explosives, TAL metals, TCL VOCs, and TCL SVOCs. The analytical data for those positively detected compounds are presented in the RFI Work Plan (USACE, 2011 [Table 7-1]). The VOC carbon disulfide and 14 SVOCs were detected at qualified concentrations, as well as several metals. Lead was detected at a concentration of 98.7 µg/g and because there are no screening values for sludge, a second sample was collected for toxicity characteristic leaching procedure (TCLP) to determine if the sludge would be classified as hazardous waste. The TCLP sample result was considered nondetectable with a method detection level of 0.5 milligram per Liter (mg/L). Consequently, the sludge was not considered hazardous. Water from the septic tank was sampled and analyzed for explosives, RCRA metals, VOCs, and SVOCs. The water was also found to not be considered a hazardous material. The water and sediments in the septic tank were removed by vacuum truck and the septic tank was abandoned in place as part of the Phase 1 RFI activities (USACE, 2011).

Ten soil borings were advanced using HSA drilling to a depth of 10 feet bgs within and adjacent to the septic tank drain field. Soil samples were collected from each boring at depths of 4 to 6 feet bgs and 8 to 10 feet bgs. The samples were analyzed for explosives, TAL metals, TCL VOCs, and TCL SVOCs. The VOC toluene and the SVOC bis (2-ethylhexyl) phthalate were detected at qualified concentrations. Several metals were also detected in these soil samples, generally at low

or qualified concentrations. The analytical data for those positively detected compounds are presented in the RFI Work Plan (USACE, 2011 [Table 7-1]).

Phase 1 RCRA Facility Investigation Groundwater Data (2001)

The Phase 1 RFI also included a groundwater investigation to further assess explosives concentrations that had been detected in previously installed groundwater monitoring well TMW11. Although well TMW11 is located approximately 600 feet southeast of Building 542, in the upgradient direction, it was still evaluated as a potential source because of the explosives handling operations that had been conducted at the site. The objective of the groundwater investigation was to evaluate whether Building 542 or nearby Building 600, which is SWMU 4, could be the source or sources of the explosives detected in groundwater at well TMW11 (USACE, 2011).

The groundwater investigation included the installation of six additional monitoring wells: TMW15 was screened in the alluvial aquifer, and TMW14A along with TMW16, TMW17, TMW18, and TMW19 were screened in bedrock aquifer. The wells were located throughout the western side of the FWDA Workshop area in the general area between and around Buildings 600 and 542 (**Figure 2.6**).

Two rounds of groundwater samples were collected from the Phase 1 RFI monitoring wells in 2001. Positively detected concentrations are presented in the RFI Work Plan (USACE, 2011 [Table 7-2]). Analytical data indicated low levels of explosives (RDX, 2,4-dinitrotoluene, 2,6-dinitrotoluene, and nitrobenzene) in five of the six new wells and also in well TMW11 where explosives were originally detected. However, all these wells are located hydraulically upgradient of Buildings 541 and 542. All concentrations were estimated values less than 1 µg/L. There are no applicable New Mexico Water Quality Control Commission (WQCC) standards or USEPA maximum contaminant levels (MCLs) for these compounds. The maximum detected concentrations of these analytes are less than the USEPA Regional Screening Levels (RSLs) for Tapwater (based on target risk of 1E-05 and target hazard index of 1.0; USEPA, 2024). The analytical results from those new wells installed in proximity to Building 542, TMW18, and TMW19 contained 2,4-dinitrotoluene and nitrobenzene at similar estimated concentrations as detected in the other Phase 1 RFI wells.

Nitrate was also detected in two wells, TMW11 and TMW15, although concentrations were substantially below the New Mexico WQCC/EPA MCL of 10 mg/L. As would be expected, TAL metals were detected in all samples although concentrations were all well below applicable New Mexico WQCC/USEPA MCL standards. Fluoride was detected in three wells: TMW11, TMW14A, and TMW17. The fluoride concentrations detected during the April 2001 sampling event in wells TMW11 and TMW17 (1.8 mg/L and 1.9 mg/L, respectively) slightly exceed the New Mexico WQCC standard of 1.6 mg/L for fluoride but are below the USEPA MCL of 4 mg/L. All of these wells are located upgradient of SWMU 11 (USACE, 2011). Wells TMW14A and TMW15 are located in Parcel 21.

4.2.2.5 2011 RCRA Facility Investigation

SWMU 11 was sampled following the demolition of Buildings 541 and 542 in 2010. Thirteen soil borings were advanced in SWMU 11 using direct-push technology (shown in **Figure 4.1**). The sampling data derived from this effort were used to evaluate the presence of environmental impacts from operations at SWMU 11. Based on operational history, the only expected COPCs for SWMU

11 are explosives. However, due to low levels of SVOC, VOCs, and metals during prior Phase 1 RFI sampling, all soil samples were analyzed for explosives, VOCs, SVOCs, and metals in the interest of compiling a complete data set to support no further action.

Four borings were advanced adjacent to the eastern loading dock of former Building 542 (0611B542-SB01 through 0611B542-SB04) to assess prior detections of explosives, VOCs, and SVOCs detected during the Phase 1 RFI. The purpose of these borings was to assess whether potential discharges from loading/unloading or wash-down practices on the east side of the former building resulted in releases to the environment. Soil boring 0611B542-SB03 was moved 2 feet from its proposed location because, during boring advancement at the first location, an old, unmarked water pipe was hit. This minor change in sampling location was coordinated with NMED through USACE personnel. Borings were advanced to approximately 20 feet bgs with analytical samples collected at intervals of: 5- to 6-foot bgs, 10- to 11-foot bgs, 15- to 16-foot bgs, and 20- to 21-foot bgs, or depth of refusal if reached before 21 feet bgs; as was the case for SB03 and 0611B542-SB04. Soil boring 0611B542-SB03 met refusal at 18.7 feet bgs (final sample collected at 17.7-18.7 feet bgs), and soil boring 0611B542-SB04 met refusal at 16.4 feet bgs (final sample collected from 15.7 to 16.4 feet bgs). All four soil borings were advanced to drilling refusal since the water table was not encountered prior to drilling refusal.

Four soil borings (0611B542-SB05 through 0611B542-SB08) were advanced adjacent to the western loading dock of former Building 542. This area is paved with asphalt, which required coring through the asphalt. Discrete soil samples were collected from 6- to 12-inches into native soil below the asphalt and then at 5, 10, and 20-21 feet bgs. The soil borings were advanced to drilling refusal since the water table was not encountered prior to drilling refusal.

One boring (0611B542-SB09) was advanced to the southwest of former Building 542 in a low area that collects drainage from the paved loading dock area west of the former building. This boring was positioned to assess potential impacts from the former cast iron line that appears to have discharged to the ground surface in this area, based on as-built drawings. The boring was advanced to roughly 5 feet bgs, with analytical samples collected at the 0.5- to 1-foot and 4- to 5-foot bgs intervals.

One boring (0611B542-SB10) was advanced adjacent to the former septic tank, roughly 200 feet southwest of the former building. This boring was positioned to assess potential releases from the septic tank to the subsurface. The specific discharge lines from the septic tank and the associated drain field have been previously investigated. The soil boring was advanced to drilling refusal since the water table was not encountered before drilling refusal. Discrete soil samples were collected at 4-5 feet, 9-10 feet, and 40.5-41.5 feet bgs (drilling refusal at 43.7 feet bgs).

One soil boring (0611B542-SB11) was advanced adjacent to the former cesspool. The soil boring was advanced to drilling refusal, with samples collected at 4-5 feet, 9-10 feet, 19-20 feet, and 37.9 to 38.9 feet bgs since the water table was not encountered prior to drilling refusal.

One soil boring (0611B542-SB12) was advanced at the former cesspool outfall to the arroyo. Soil samples were collected at 0.5- to 1-foot, 4- to 5-foot, and 9- to 10-foot bgs intervals. The sample collected from the depth of refusal was collected on January 19, 2011 (this sampling depth had been inadvertently omitted during the initial sampling effort). Boring was conducted directly adjacent to the SB12 prior boring location to a depth of 38-39 feet bgs, with a sample collected from the bottom of this borehole since the water table was not encountered prior to drilling refusal.

One soil boring (0611B542-SB13) was advanced near the center of the septic tank drain field. Soil samples were collected at 4- to 5-foot, 9- to 10-foot, 19- to 20-foot bgs, and at the bottom of the borehole since the water table was not encountered before drilling refusal (sample collected from 42.5- to 43.5-foot bgs; refusal at 43.7 feet bgs).

Subsurface soil borings were advanced using a direct-push drilling method. This method allowed not only for sample collection but also allowed observation and description of the soil column at each location. USGS personnel documented visual identification of soil staining, lithology changes, etc., along with a collection of field measurement with a PID for each borehole.

All samples were analyzed for VOCs (via SW8260B); SVOCs via SW8270C); RCRA metals (via SW6010B and SW7471A); explosives (via SW8330B); and perchlorate (via SW6860). Additionally, the soil borings on the eastern side of the building were analyzed for TPH diesel range organics (DRO) (via SW8015M) for the samples collected at the 5- to 6-foot bgs depth interval. Results are provided in **Appendix B (Tables B.4-2 through B.4-7)**.

4.3 DATA GAP ASSESSMENT

Existing data have been evaluated to determine what additional field activities are required to complete characterization of the nature and extent of the soil contamination that were deemed to have data gaps from the initial RFI at Parcel 6 and to address comments received from the NMED contained in a NOD dated June 4, 2019 (NMED, 2019). These NMED Disapproval comments (NMED, 2019) were addressed as part of this Supplemental RFI Work Plan and will be incorporated into the RFI Report. In accordance with NMED Comment 9 of the disapproval letter (NMED, 2019), this Supplemental RFI Work Plan does not compare data collected prior to March 20, 2011, to SSLs nor presents these historical data locations on figures.

4.3.1 Nature and Extent Evaluation

The nature and extent of contamination is based on the results provided in **Appendix B (Tables B.4-2 through B.4-7)**. Previous sampling locations are shown on **Figure 4.1**. In accordance with the Permit (NMED, 2015a; Attachment 7), the nature and extent of contamination at Parcel 6 will be delineated to the NMED Residential Direct Contact SSLs, or background values, if higher.

VOCs, SVOCs, RCRA metals, TPH-DRO, explosives, and perchlorate were detected below NMED Human Health Direct Contact SSLs (NMED, 2022) in soil samples collected during the RFI at SWMU 11.

Arsenic was detected at concentrations exceeding the NMED Human Health Direct Contact SSL (NMED, 2022) of 7.07 mg/kg in two soil samples (8.7 mg/kg at 0611B542-SB06-0910D-SO and 9.0 mg/kg at 0611B542-SB09-0405D-SO). However, arsenic concentrations in both samples were within the site-specific background range for arsenic of 0.2 to 11.2 mg/kg.

Four wipe samples were collected from stained or discolored areas on the east loading dock and were analyzed for explosives. One explosive, HMX, was detected in one sample. Four surface soil samples (TKEDCK01, TKEDCK02, TKEDCK03, and TKEDCK04) were collected adjacent to the stained areas observed on the east loading dock and were tested for TNT and RDX using immunoassay test kits, indicative of the presence of explosives. HMX was not an analyte of the immunoassay test kits used in the field. NMED's Comment 30 of the disapproval letter (NMED, 2019) indicated that since HMX was detected on the

loading dock, the surface soil samples collected adjacent to the loading dock should have been tested for HMX.

Four wipe samples were collected from stained or discolored areas on the west loading dock and were analyzed for explosives. One explosive, HMX, was detected in two samples. Four surface soil samples (TKWDCK01, TKWDCK02, TKWDCK03, and TKWDCK04) were collected near the western loading dock, adjacent to the western edge of the pavement near the dock at topographically low and were tested for TNT and RDX using immunoassay test kits, indicative of the presence of explosives. HMX was not an analyte of the immunoassay test kits used in the field. NMED's Comment 30 of the disapproval letter (NMED, 2019) indicated that since HMX was detected on the loading dock, the surface soil samples collected adjacent to the loading dock should have been tested for HMX.

Explosives HMX and/or RDX were only detected in samples 0611B542-SB02, 0611B542-SB06, 0611B542-SB07, and 0611B542-SB08 and were below 2022 NMED SSLs. Explosives were not detected in subsurface soil samples from 0611B542-SB01which was installed adjacent to previous location TKEDCK03.

4.3.2 Data Gap Summary

The following data gaps have been identified for SWMU 11, Buildings 541 and 542:

Surface samples collected at the east loading dock (TKEDCK01, TKEDCK02, TKEDCK03, and TKEDCK04) and west loading dock (TKWDCK01, TKWDCK02, TKWDCK03, and TKWDCK04) (USACE, 2011 [Figure 7-2]) in 2000 were not analyzed for HMX.

NMED noted in Comment 71 (NMED, 2019), samples were not collected from the 0.0 to 1.0 foot bgs depth interval at borings 0611B542-SB01, 0611B542-SB02, 0611B542-SB03, and 0611B542-SB04.

4.4 PRELIMINARY CONCEPTUAL SITE MODEL

There is potential for receptors to be exposed to contamination remaining from historical activities conducted at FWDA. The potential for exposure varies across Parcel 6 because it contains a mix of developed and open spaces that will support different types of land use. Current land use is as an out-of-use military installation undergoing remediation where the receptors could include commercial/ industrial workers and construction workers. The properties are anticipated to be transferred to other entities, and therefore, future use by residents, commercial/industrial workers, and construction workers is possible. However, the Permit (NMED, 2015a; Attachment 7) requires that future residential land use be evaluated to support unrestricted future land use by the Army or other future owner, which includes both adult and child receptors.

The preliminary CSM for SWMU 11 was prepared in accordance with the human health risk assessment guidance (NMED, 2022) and is shown on **Figure 4.2**. The primary source of potential contaminants is from former ammunition, packing, shipping, and receiving at Building 542 and the heating plant at Building 541. The primary release mechanism is direct discharge and leaks, drips, and spills to the ground surface. Secondary sources of potential contaminants are surface soils. Transport mechanisms may include wind erosion from contaminated surface soils, plant uptake and grazing, leaching and infiltration to subsurface soil, volatilization of contaminants in

surface soil to air, infiltration and leaching to groundwater, and stormwater runoff and erosion of surface soil to surface water and sediment. No groundwater wells have been installed at SWMU 11; however, based on the nearest monitoring wells (TMW18 and TMW19) to SWMU 11, depth to groundwater ranges from 40.19 to 56.15 feet bgs (Eco & Associates, 2023 [see Table 4-1]). Groundwater does not discharge to surface water. There are no year-round surface water bodies. Therefore, the surface water/sediment exposure pathways are incomplete.

The primary media of concern being addressed by this Supplemental RFI Work Plan are surface and subsurface soil. Potential exposure pathways are direct contact (including dermal contact, incidental ingestion, and inhalation of dust or particulates) and the soil leaching to groundwater pathways.

SWMU 11 is a smaller site (0.2 acre). Current human receptors include commercial/industrial workers. SWMU 11 has the potential to support future residential use, commercial/industrial use, and construction workers. The beef ingestion pathway is considered incomplete because SWMU 11 is less than two acres in size. Residential land use will be evaluated for this property to comply with the Permit requirements and to support unrestricted future land use by the Army or other future owner.

The groundwater exposure pathway is incomplete for current receptors. The groundwater exposure pathway is potentially complete for future hypothetical residents. Groundwater is assumed to be used as drinking water until it can be demonstrated that an alternate source of drinking water is readily available to replace groundwater as the primary drinking water source.

The ecological preliminary CSM is discussed in **Section 12.2.5**. SWMU 11 (0.2 acre) is smaller than 10% of the home range size for three large home range ecological receptors; therefore, they were eliminated from further evaluation: 1) kit fox (evaluated only for sites greater than 267 acres), 2) red-tailed hawk (evaluated only for sites greater than 177 acres), and 3) pronghorn antelope (evaluated only for sites greater than 342 acres). The NMED guidance requires plants, the deer mouse, and the horned lark to be evaluated at all sites, regardless of size. Therefore, the ecological risk evaluation will consider each of these three receptors. The following exposure pathways are potentially complete as illustrated on **Figure 12.1**:

Plant roots in direct contact with contaminated soil,

Deer mouse and horned lark exposed via dermal contact with soil and incidental ingestion of contaminated soil, and

Deer mouse and horned lark exposed via ingestion of prey items through the food web.

While inhalation is a possible exposure route for ecological receptors, inhalation is considered an insignificant exposure pathway when compared to ingestion and dermal contact.

4.5 PROPOSED SUPPLEMENTAL RFI SAMPLING STRATEGY

DQOs have been developed consistent with the USEPA DQO process. The overall project DQO is to provide representative, repeatable, high-quality data in order to complete the RFI process for Parcel 6. DQOs specific to SWMU 11 are presented in **Table 4.1**. A summary of the proposed samples, sample analysis, and QC sample counts are summarized in **Table 4.2**. Proposed sampling locations are shown on **Figure 4.3.**

The approach to address data gaps is presented in the following paragraphs:

To address Comment 29 of the disapproval letter (NMED, 2019), the depth of the arroyo will be recorded as part of the Supplemental RFI field work at SWMU 11 and included in the RFI Report.

To address Comment 30 of the disapproval letter (NMED, 2019), four soil borings will be installed at the locations of the four samples originally tested for TNT and RDX using immunoassay test kits in 2000 at the east loading dock (TKEDCK01, TKEDCK02, TKEDCK03, and TKEDCK04 (USACE, 2011 [Figure 7-2]**)**. Samples will be collected from 0 to 1.0 feet bgs (0611B542-SB14-0.0-1.0D-SO, 0611B542-SB15-0.0-1.0D-SO, 0611B542-SB01-0.0-1.0D-SO, and 0611B542-SB16-0.0-1.0D-SO on **Figure 4.3**) and analyzed for VOCs (via SW8260D), SVOCs (via SW8270E), PAHs (SW8270E-SIM), RCRA metals (via SW6020B and 7471B), TPH-DRO (via SW8015D), explosives (via SW8330B), and perchlorate (via SW6850).

Additionally, four soil borings will be installed at the locations of the four samples originally tested for TNT and RDX using immunoassay test kits in 2000 at the west loading dock (TKWDCK01, TKWDCK02, TKWDCK03, and TKWDCK04 (USACE, 2011 [Figure 7-2)]**)**. Samples will be collected from 0 to 1.0 feet bgs (0611B542-SB17-0.0-1.0D-SO, 0611B542-SB18-0.0-1.0D-SO, 0611B542-SB19-0.0-1.0D-SO and 0611B542-SB20-0.0-1.0D-SO on **Figure 4.3**) and analyzed for VOCs (via SW8260D), SVOCs (via SW8270E), PAHs (SW8270E-SIM), RCRA metals (via SW6020B and 7471B), TPH-DRO (via SW8015D), explosives (via SW8330B), and perchlorate (via SW6850).

To address Comment 71 of the disapproval letter (NMED, 2019), one soil sample will be collected at the locations of borings 0611B542-SB01 through 0611B542-SB04 along the east loading dock. Samples will be collected from 0.0 to 1.0 feet bgs (0611B542-SB01-0.0-1.0D-SO through 0611B542-SB04-0.0-1.0D-SO on **Figure 4.3**) at each location and analyzed for VOCs (via SW8260D), SVOCs (via SW8270E), PAHs (SW8270E-SIM), RCRA metals (via SW6020B and 7471B), TPH-DRO (via SW8015D), explosives (via SW8330B), and perchlorate (via SW6850).

Note that boring 0611B542-SB01 (installed in 2011) is co-located with sample TKEDCK03 (collected in 2000) and as such, the sample proposed to be collected from the 0.0 to 1.0 ft bgs interval of boring 0611B542-SB01 addresses both NMED Comments 30 and 71.

Following the data collection and analysis per **Section 11.0**, data will be evaluated as described in **Section 12.0**.

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5.0 SWMU 20 – WESTERN LANDFILL (FEATURE 4)

This section summarizes the background, previous investigations, data gaps, the preliminary CSM, and provides details on the proposed Supplemental RFI for the SWMU 20, Western Landfill – Feature 4.

5.1 BACKGROUND

5.1.1 Location, Description, and Operational History

The Western Landfill Area is a former burial site located approximately 0.5 mile west of the Administrative Area and is shown on **Figure 5.1**. Representative photographs included in the RFI Work Plan (USACE, 2011 [Photographs 8-1 through 8-6]) show various views of the Western Landfill. The Western Landfill is predominantly located in Parcel 7 but is partially located in Parcel 6 and has therefore been historically included with the Parcel 6 investigation activities.

Based on review of historical aerial photography, the Western Landfill Area originally appeared to consist of four elongated areas or closed trenches defined by depressions and disturbed vegetation (ERM, 1997). Each area was approximately 100 feet in length and 50 feet in width, and generally oriented from north to south (ERM, 1997). A large mound of soil remained in the vicinity, which is likely native soils resulting from trench excavation activities (ERM, 1997). Personnel previously stationed at the FWDA installation reported that the trenches were excavated shortly before the installation was closed in 1993, and nonhazardous materials (e.g. trash, refuse, debris, etc.) were disposed of in the trenches (ERM, 1997). Aerial photographs show historical operations at this location beginning prior to 1948. Three additional large, disturbed areas were also located in proximity to the four trenches (ERM, 1997). Environmental restoration activities were completed at these seven areas in 2005 (USACE, 2005). All debris was removed from the trenches, and soil confirmation sampling (USACE, 2011 [Table 8-1]) verified that all hazardous materials and contaminated soil were removed from the excavations. The trenches were backfilled with clean soil, and the area has since been re-vegetated.

Previous interpretation of aerial photography also indicated that an area to the southwest of the Western Landfill may have had historic operations. This site is described as Feature 4 and is adjacent to the former location of a pre-World War II (WWII) magazine.

5.1.2 Surface and Subsurface Conditions

The SWMU 20 area is generally flat, and the vegetative cover consists mostly of grass and sagebrush. SWMU 20 is immediately to the east of a regional drainage arroyo. The SWMU 20 area is underlain by unconsolidated alluvium to depths of at least 15 feet bgs, as determined during the landfill waste removal activities (USACE, 2005). No groundwater wells have been installed at SWMU 20.

5.2 PREVIOUS INVESTIGATIONS

Several soil investigations have been conducted at SWMU 20, as discussed in this section. It is not clear whether these investigations included the portion of SWMU 20 that is located within Parcel 6. While no groundwater characterization specific to SWMU 20 has been performed to date, groundwater issues are being addressed on a facility-wide level. Previous sampling locations are

shown on **Figure 5.1**.

5.2.1 Nonsampling Data

Nonsampling data available for SWMU 20 are summarized below.

5.2.1.1 Aerial Report

Aerial imagery from 1935, 1948, 1952, 1958, 1962, 1966, 1973, 1978, 1985, 1991, 1993, and 1997 was reviewed and documented in ERI (2006). The 1935 aerial photograph shows a pre-WWII magazine located to the south of the Western Landfill and to the east of Feature 4, as well as dirt roads that lead to this area. Historical operations at SWMU 20 are first visible beginning with the 1948 aerial photo where an access road is shown leading to an area of dark-toned material and debris. This photo also shows a drainage feature that was constructed to channelize the arroyo to the west of this area. By 1948 the pre-WWII magazine had been removed; however, dirt roads are still present in this area that lead to Feature 4, which is an area that may be disturbed ground or natural vegetation that is adjacent to the constructed drainage feature. Historical operations are present at SWMU 20 through the 1966 aerial photograph, with signs of debris, ground scars, and trenching evident in aerial imagery; however, historical operations or signs of an environmental release at Feature 4 were not specifically observed in any of the available aerial photographs.

5.2.1.2 Report of Investigation for Potential Environmental Areas of Concern

The *Report of Investigation for Potential Environmental Areas of Concern* (USACE, 2007) documents an investigation completed at AOCs located outside of the boundaries of current SWMUs and AOCs. Investigation activities were not completed within SWMU 20. However, the report includes background information relevant to the World War I (WWI) magazines. A WWI magazine was formerly located within SWMU 20 to the east of Feature 4. WWI magazines historically stored bulk explosives in boxes prior to WWII. The magazines were wood buildings with metal roofs and were approximately 20 feet by 50 feet in size. All WWI magazines were demolished prior to WWII to clear space for the current structures at FWDA.

5.2.2 Sampling Data

Previous investigation phases have been completed at SWMU 20 and are summarized below. RFI and PIIM sampling locations are shown in **Figure 5.1**. Locations of samples collected at SWMU 20 prior to the 2011 RFI are presented in the RFI Work Plan (USACE, 2011 [Figure 8-4]).

5.2.2.1 Final Remedial Investigation/Feasibility Study & RCRA Corrective Action Program Document

Twenty-nine investigation trenches were completed in the four main trenches (DT1 to DT4) and three disturbed areas (DA1 to DA3) during the remedial investigation (RI) to determine the depth of the landfill (ERM PMC, 1997). The investigation trenches penetrated the full thickness of wastes in the vertical and horizontal planes. Waste was encountered in all four disposal trenches and one of the disturbed ground areas. The waste encountered in the Western Landfill generally consisted of solid waste of the sort typically generated during the warehousing, packaging, and demilitarization of munitions. The primary types of waste included metal banding, various types of wood debris, plastic debris, electrical wiring, and construction and demolition debris. Minor amounts of glass, ash, automobile parts, and a few crushed metal and plastic containers were also present. Material described as unusual included 120 demilitarized projectiles and demolition debris

(thought to be associated with the Deactivation Furnace) were found in trench DT4. Several crushed drums were found in trench DT2, and several areas thought to be ash were encountered. The report does not indicate the specific locations where ash was found (USACE, 2011).

Generally, a cover of 1 to 7 feet of sandy silt to silty-clayey sand was observed over the disposal trenches. The maximum depth of waste ranged from approximately 7 to 14 feet bgs. During the RI, 15 waste and 16 soil samples were collected and analyzed for explosives, VOCs, SVOCs, pesticides, PCBs, metals, and nitrate/nitrite. Several SVOCs, three VOCs (bromomethane, 1,1,1-trichloroethane, and chlorobenzene), pesticides, and metals were detected at low concentrations "exceeding background values of native soil," but the report does not indicate a specific source for the final background values, only a description of a 1992 work plan that outlined the methodology for determination of the background values. Area DA3 was the only disturbed area found to contain significant amounts of waste: a layer of 5-inch rocket fins present from just below the ground surface to a depth of approximately 3 feet bgs. Investigation trenches were able to penetrate the full thickness of the wastes. The extent of contamination was believed to be limited to the visible waste and associated matrix and not to have impacted the native soil below the landfill (USACE, 2011). Additional discussion of the 1997 RI/FS and RCRA Corrective Action Program and associated confirmation samples will be included in RFI Report, following approval of this work plan, to address Comment 42 of the disapproval letter (NMED, 2019).

5.2.2.2 Final Report Removal and Disposal of Western Landfill

In 2001, waste and debris were removed from the Western Landfill (USACE, 2005). Approximately 12,800 CY of debris and soil were excavated and disposed of off-site. No live munitions or explosives of concern (MEC) items were recovered during removal activities. Approximately 186 tons of munitions debris and other metal debris were recovered and recycled during these activities. No unexploded ordnance (UXO) was found in any of the landfill cells or at the site. Following the excavation activities, confirmation soil samples were collected from the bottom of the excavations. Confirmation sample results are included in the RFI Work Plan (USACE, 2011 [Table 8-1]). Sample locations are documented on maps in the Parcel 6 Historical Information Report (CH2M Hill, 2009 [Appendix E.1]). The site was backfilled with clean soil, then regraded and revegetated.

5.2.2.3 Final Report on Airborne Geophysical Survey

In January 2009, a low-altitude airborne vertical magnetic gradient geophysical survey was conducted over the Fort Wingate Army Depot, New Mexico (Battelle, 2009). The objective of the survey was to acquire vertical magnetic gradient data to provide an indication of the level of UXO contamination and areas of pits and trenches, and to localize potential sources with sufficient positional accuracy (a few 10s of cm) to permit ground-based reacquisition of targets. The summary report indicated the importance for potential users of these data to recognize that the airborne data should not be used to declare an area free of ordnance contamination. A lack of anomalies may indicate ordnance that is too small or deep to be detected or data that are insensitive to larger ordnance due to high survey altitudes (Battelle, 2009). Anomalies were picked from the peaks in the analytic signal map (USACE, 2011 [Figure 8-5]). The location of these targets is limited by the grid cell size of the data (50cm). The actual target location is usually within 2-3 grid cells, 150cm, of this peak location. The analytic signal strength was used to rank anomalies. The main survey area consisted of 1,650 acres; however, due to topography and vegetation, only 1,489 acres were actually surveyed. The typical survey altitude was 1 to 5 meters above ground level in

the low, flat areas, and 5 to 10 meters above ground level in the valleys and rugged terrain areas. The results of the airborne geophysical survey for SWMU 20 were included in the RFI Work Plan (USACE, 2011).

5.2.2.4 2011 RCRA Facility Investigation

Soil sampling at Feature 4 of SWMU 20 was conducted to evaluate the potential presence of environmental impacts from potential undocumented historical releases of hazardous substances to surface or subsurface soils as a result of undocumented historical operations at this site. Due to the proximity of this site to the Western Landfill, the COPCs for Feature 4 include explosives, RCRA metals, VOCs, SVOCs, pesticides, and chlorinated herbicides.

One incremental sampling methodology (ISM) soil sample (0620WLAND-SS-1M-SO) comprised of 50 increments was collected from a 100-foot-by-100-foot decision unit and analyzed for explosives (via SW8330B) and RCRA metals (via SW6010B and SW7471A) (**Figure 5.2**).

One soil boring (0620WLAND-SB01-0001D-SO) was advanced within the ISM decision unit to 5 feet bgs with discrete soil samples collected at the 0- to 1-foot and 4- to 5-foot bgs intervals. Soil boring samples were analyzed for VOCs (via SW8260B), SVOCs (via SW8270C), RCRA metals (via SW6010B and Method 7471A), pesticides (via SW8081A), chlorinated herbicides (via SW8151), and explosives (via SW8330B). Results are provided in **Appendix B (Tables B.5-2 through B.5-4)**.

5.2.2.5 Permittee-Initiated Interim Measures

Between 2015 and 2018, surface debris consisting of concrete, clay tiles, red brick and other building debris were removed from the northern portion of Feature 4. The debris was visible on the surface of the ground along the top of a raised area referred to as Area A and a small mound of debris referred to as Area B (**Figure 5.1**).

Area A debris consisted of concrete debris, brick, and clay tiles. No ACM were initially identified in Area A. The debris in this area was present in mounds that were several feet thick in the center, tapering off to a few inches along the edges of the mounds. The debris encountered at Area B consisted primarily of concrete debris, brick, wood, and clay tiles. This debris was encountered along the northern embankment from the surface up 1.0 foot bgs.

On October 23, 2015, during the first day of debris removal, suspected ACM was encountered at Feature 4 and all removal activities were stopped. An NMED asbestos National Emission Standards for Hazardous Air Pollutants notification (40 CFR Subpart M §61.145 (b)) was filed on November 23, 2015, and revised on November 30, 2015, for the asbestos removal. On December 9, 2015, personnel qualified to remove ACM were brought to the site and the suspected ACM was bagged and placed in an appropriate container. As the debris removal continued, asbestos personnel continued to monitor the removal for ACM material. The removal of ACM from Areas A and B was completed on December 10, 2015.

The debris removal from Feature 4 was completed on February 14, 2016. Approximately 609 CY of soil were excavated and stockpiled on plastic sheeting pending waste characterization and confirmation results (AMEC, 2018).

Following the removal of surface debris from Feature 4, fourteen discrete sidewall perimeter confirmation samples and fifteen discrete excavation bottom confirmation samples were collected from Area A (**Figure 5.2**). Twenty-eight discrete sidewall perimeter confirmation samples and

fourteen discrete excavation bottom confirmation samples were collected from Area B (**Figure 5.3**). Each sample was analyzed for RCRA metals (via SW6010C and SW7471B); PCBs (via SW8082A); PAHs (via SW8270 SIM); SVOCs (via SW8270D); VOCs (via SW8260C); pesticides (via SW8081B) and asbestos (via SW600/R-93/166).

The analytical results indicated that PAH concentrations exceeded the 2015 NMED Human Health Direct Contact SSLs (NMED, 2015) in two samples from Area A (0620F-4AEC05-0.0-0.5D-SO and 0620F-4AEC08-0.0-0.5D-SO on **Figure 5.2**) and in one sample from Area B (0620F-4BEC03-0.0-0.5D-SO on **Figure 5.3**). PAH concentrations in these three soil samples did not exceed the current NMED (2022) SSLs; therefore, they are not shown as exceedances on **Figures 5.2 and 5.3**. However, they were excavated during the PIIM because they exceeded the NMED (2015) SSLs in place at the time of excavation. Additional soil was removed from Areas A and B, and three new confirmation samples were collected on March 7, 2016 (0620F-4AEC05-1.0-1.5D-SO [**Figure 5.2**], 0620F-4AEC08-1.0-1.5D-SO [**Figure 5.2**], and 0620F-4BEC03-1.0-1.5D-SO [**Figure 5.3**]). The analytical results from the three new confirmation samples indicated that COPC concentrations were below the 2015 NMED Human Health Direct Contact SSLs (AMEC, 2018) in place at the time of excavation.

Additional samples that were omitted during the initial field work were collected in 2017 and 2018, one of which exceed the 2015 NMED Human Health Direct Contact SSLs (NMED, 2015) for several PAHs (0620F4AEC-05D-SO). Confirmation sampling results are provided in **Appendix B (Tables B.5-5 through B.5-9)**.

5.3 DATA GAP ASSESSMENT

Existing data have been evaluated to determine what additional field activities are required to complete characterization of the nature and extent of the soil contamination that were deemed to have data gaps from the initial RFI at Parcel 6 and to address comments received from the NMED contained in a NOD dated June 4, 2019 (NMED, 2019). These NMED disapproval comments (NMED, 2019) were addressed as part of this Supplemental RFI Work Plan and will be incorporated into the RFI Report. In accordance with NMED Comment 9 of the disapproval letter (NMED, 2019), this Supplemental RFI Work Plan does not compare data collected prior to March 20, 2011, to SSLs nor presents these historical data locations on figures.

5.3.1 Nature and Extent Evaluation

The nature and extent of contamination is based on the initial RFI results and the PIIM confirmation soil sampling results provided in **Appendix B (Tables B.5-2 through B.5-9)**. Results that exceed NMED Human Health Direct Contact SSLs (NMED, 2022) are summarized on **Table 5.1**. In accordance with the Permit (NMED, 2015a; Attachment 7), the nature and extent of contamination at Parcel 6 will be delineated to the NMED Residential Direct Contact SSLs, or background values, if higher.

Arsenic was detected in concentrations exceeding the NMED Human Health Direct Contact SSL (NMED, 2022) of 7.07 mg/kg in sample 0620F4AEC-05D-SO, however the detected concentration (8.77 mg/kg) is within the site-specific background range for arsenic of 0.2 to 11.2 mg/kg.

In sample 0620F4AEC-05D-SO, collected from 0-0.5 foot bgs, benz(a)anthracene was detected at 5.7 mg/kg which exceeds the NMED SSL of 1.53 mg/kg, benzo(a)pyrene was

detected at 3.9 mg/kg which exceeds the NMED SSL of 1.12 mg/kg, benzo(b)fluoranthene was detected at 12 mg/kg which exceeds the NMED SSL of 1.53 mg/kg, dibenz(a,h)anthracene was detected at 0.94 mg/kg which exceeds the NMED SSL of 0.153 mg/kg, and indeno(1,2,3-cd) pyrene was detected at 4.4 mg/kg which exceeds the NMED SSL of 1.53 mg/kg (Comment 15 of the disapproval letter [NMED, 2018] on the 2018 PIIM Report [AMEC, 2018]). PAHs were detected at confirmation sample locations 4AEC05-0.0-0.5D-SO, 4AEC08-0.0-0.5D-SO, and 4BEC03-0.0-0.5D-SO at concentrations that exceeded previous NMED (2015) SSLs. These three locations were excavated in 2016 under the PIIM. The analytical results from the three new confirmation samples indicated that COPC concentrations were below the NMED (2015) SSLs.

RFI sample 0620WLAND-SB01 was collected within the ISM decision unit, and discrete samples were collected from 0-1 foot bgs and 4-5 foot bgs. These discrete samples were analyzed for the same parameters as the ISM sample. The results from 0620WLAND-SB01 do not exceed 2022 NMED direct contact SSLs.

5.3.2 Data Gap Summary

The following data gaps have been identified for SWMU 20, Western Landfill - Feature 4:

The lateral and vertical extent of PAHs in soil at 0620F4AEC-05D-SO is not defined.

5.4 PRELIMINARY CONCEPTUAL SITE MODEL

There is potential for receptors to be exposed to contamination remaining from historical activities conducted at FWDA. The potential for exposure varies across Parcel 6 because it contains a mix of developed and open spaces that will support different types of land use. Current land use is as an out-of-use military installation undergoing remediation where the receptors could include commercial/ industrial workers and construction workers. The properties are anticipated to be transferred to other entities, and therefore, future use by residents, commercial/industrial workers, and construction workers is possible. However, the Permit (NMED, 2015a; Attachment 7) requires that future residential land use be evaluated to support unrestricted future land use by the Army or other future owner, which includes both adult and child receptors.

The preliminary CSM for SWMU 20 was prepared in accordance with the human health risk assessment guidance (NMED, 2022) and is shown on **Figure 5.4**. The primary source of potential contaminants is the Western Landfill. The primary release mechanism is leaks from the landfill. Secondary sources of potential contaminants are subsurface soils. Transport mechanisms may include plant uptake and grazing, infiltration and leaching to groundwater, and stormwater runoff and erosion of surface soil to surface water and sediment. No groundwater wells have been installed at SWMU 20. Groundwater does not discharge to surface water. There are no year-round surface water bodies. Therefore, the surface water/sediment exposure pathways are incomplete.

The primary media of concern being addressed by this Supplemental RFI Work Plan are surface and subsurface soil. Potential exposure pathways are direct contact (including dermal contact, incidental ingestion, and inhalation of dust or particulates) and the soil leaching to groundwater pathways.

SWMU 20 is a larger site (3.83 acres). Current human receptors include commercial/industrial workers. SWMU 20 has the potential to support future residential use, commercial/industrial use,

and construction workers. The beef ingestion pathway is considered potentially complete because SWMU 20 is greater than two acres in size and will be evaluated qualitatively as described in Section 12.1.3.2. Residential land use will be evaluated for this property to comply with the Permit requirements and to support unrestricted future land use by the Army or other future owner.

The groundwater exposure pathway is incomplete for current receptors. The groundwater exposure pathway is potentially complete for future hypothetical residents. Groundwater is assumed to be used as drinking water until it can be demonstrated that an alternate source of drinking water is readily available to replace groundwater as the primary drinking water source.

The ecological preliminary CSM is discussed in **Section 12.2.5**. SWMU 20 (3.83 acres) is smaller than 10% of the home range size for three large home range ecological receptors; therefore, they were eliminated from further evaluation: 1) kit fox (evaluated only for sites greater than 267 acres), 2) red-tailed hawk (evaluated only for sites greater than 177 acres), and 3) pronghorn antelope (evaluated only for sites greater than 342 acres). The NMED guidance requires plants, the deer mouse, and the horned lark to be evaluated at all sites, regardless of size. Therefore, the ecological risk evaluation will consider each of these three receptors. The following exposure pathways are potentially complete as illustrated on **Figure 12.1**:

Plant roots in direct contact with contaminated soil,

Deer mouse and horned lark exposed via dermal contact with soil and incidental ingestion of contaminated soil, and

Deer mouse and horned lark exposed via ingestion of prey items through the food web.

While inhalation is a possible exposure route for ecological receptors, inhalation is considered an insignificant exposure pathway when compared to ingestion and dermal contact.

5.5 PROPOSED SUPPLEMENTAL RFI SAMPLING STRATEGY

Table 5.1 lists the samples collected during the PIIM which currently exceed the NMED 2022 direct contact SSL for analytes and whether the lateral extent was defined. DQOs have been developed consistent with the USEPA DQO process. The overall project DQO is to provide representative, repeatable, high-quality data in order to complete the RFI process for Parcel 6. DQOs specific to SWMU 20 are presented in **Table 5.2**. A summary of the proposed samples, sample analysis, and QC sample counts are summarized in **Table 5.3**. Proposed sampling locations are shown on **Figure 5.5.**

The approach to address data gaps is presented in the following paragraphs:

To address Comment 15 of the disapproval letter (NMED, 2018) on the 2018 PIIM Report (AMEC, 2018), and to define the vertical and lateral extent of PAH contamination at PIIM confirmation sample location 0620F4AEC-05D-SO, the Army proposes to collect two additional samples at the location of the previous sample location from depths of 0.5 to 1.0 ft bgs and 1.5 to 2.0 ft bgs (0620F4-SB01-0.5-1.0D-SO and 0620F4-SB01-1.5-2.0D-SO on **Figure 5.5**) and step-out samples at a location 10.0 feet west of the original sample at depths of 0.0 to 0.5, 0.5 to 1.0 ft, and 1.5-2.0 ft bgs (0620F4-SB02-0.0-0.5D-SO, 0620F4-SB02-0.5-1.0D-SO, and 0620F4-SB02-1.5-2.0D-SO on **Figure 5.5**) to be analyzed for PAHs (via SW8270 SIM) and explosives (via SW8330B).

Following the data collection and analysis per **Section 11.0**, data will be evaluated as described in **Section 12.0**.

6.0 AOC 42 – BUILDING 516 (AMMUNITION RECEIVING BUILDING)

This section summarizes the background, previous investigations, data gaps, the preliminary CSM, and provides details on the proposed Supplemental RFI sampling for the AOC 42, Building 516 Ammunition Receiving Building.

6.1 BACKGROUND

6.1.1 Location, Description, and Operational History

Building 516, or AOC 42, is located in the northeast portion of Parcel 6, in the Workshop Area of the FWDA, as shown in **Figure 6.1**. Representative photographs provided in the RFI Work Plan (USACE, 2011 [Photographs 10-1 and 10-2]) show various views of Building 516. Building 516, constructed in 1948, is listed as the ammunition receiving building. The building is a 400-square-foot brick structure with a reinforced concrete floor (FWDA, 1961; Daniel, 1994). This building had no water service and was not connected to the sanitary sewer.

Based on available documentation, Building 516 was used solely for the initial receipt and storage of ammunition. No specific documentation was available to indicate the types of ammunition stored or the exact dates of the operational history of Building 516 (USACE, 2011).

6.1.2 Surface and Subsurface Conditions

The area adjacent to AOC 42 has a generally flat topography with a vegetative cover consisting predominantly of grasses and sagebrush.

Previous subsurface investigations have not been completed at AOC 42.

6.2 PREVIOUS INVESTIGATIONS

Several soil investigations have been conducted at AOC 42, as discussed in this section. While no groundwater characterization specific to AOC 42 has been performed to date, groundwater issues are being addressed on a facility-wide level. RFI sampling locations are shown on **Figure 6.1**. Locations of samples collected at AOC 42 prior to the 2011 RFI are presented in the RFI Work Plan (USACE, 2011 [Figure 10-2]).

6.2.1 Nonsampling Data

Nonsampling data available for AOC 42 are summarized below.

6.2.1.1 Facilities Data Fort Wingate Ordnance Depot, Gallup, New Mexico

This report (FWDA, 1961) includes relevant construction information for Building 516.

6.2.1.2 New Mexico Historic Building Inventory Form

This report (Daniel, 1994) includes relevant construction information for Building 516.

6.2.1.3 Aerial Report

An aerial photography analysis was completed in 2006 based on aerial imagery obtained during a search of government and commercial records (ERI, 2006). The photographs were analyzed

utilizing a stereoscope to locate potential sources of contamination and to record any findings inside the boundaries of the known AOCs and SWMUs. Aerial images dated from 1935 to 1997 were catalogued. The summary of imagery analysis provided for AOC 42 in the 2006 report is as follows:

1935 – No significant findings

1948 – Building 516 present; no significant findings

1952 – No significant findings

1958 – No significant findings

1962 – No significant findings

1966 – No significant findings

1973 – No significant findings

1978 – No significant findings

1985 – No significant findings

1991 – No significant findings

1993 – No photo coverage

1997 – No significant findings.

While not specifically stated in the summary of this report, Building 516 is visible from 1948 to 1997. Based on further review of this report and the aerial photographs, it appears as if the 2006 report states "no significant findings" if there were no observed environmental concerns. That statement does not mean that the buildings were not present or that other changes to the area were not observed.

6.2.2 Sampling Data

6.2.2.1 Final Asbestos Survey Report

The *Final Asbestos Survey Report, Volume II, Book 1* (Pickering Environmental, 1990) includes results of an ACM investigation completed at various FWDA buildings. Results indicated that no ACM was present at Building 516.

6.2.2.2 Environmental Baseline Survey for the Transfer of Lands at Fort Wingate Depot Activity, New Mexico

The *Environmental Baseline Survey for the Transfer of Lands at Fort Wingate Depot Activity, New Mexico* (USACE, 2000) documents a survey for ACM; no suspect ACM was found. No information exists regarding LBP or PCBs. LBP is assumed to be present based on building construction dates.

6.2.2.3 Site Reconnaissance

Site reconnaissance was completed at AOC 42 on July 18, 2008. No manmade debris or evidence of soil staining were observed at the ground surface at AOC 42. The interior of Building 516 was clear of any debris or staining (USACE, 2011).

6.2.2.4 2008 Release Assessment Soil Sampling

This report documents a survey for ACM; no suspect ACM was found. No information exists regarding LBP or PCBs. LBP is assumed to be present based on building construction dates.

In 2008, one ISM surface soil sample (FWDA-BLDG516-SS-072208) was collected from 0-1 ft bgs at AOC 42 and analyzed for explosives (via SW8330B) and for lead (via SW6010). The ISM sample consisted of 10 increments, five each taken from the north and south side of the eastern loading ramp using a 10-foot spacing at a distance of 5 feet from the concrete ramp, as shown in (USACE, 2011 [Figure 10-2]).

No explosives were positively detected in the ISM sample collected from AOC 42. Lead was detected.

6.2.2.5 2011 RCRA Facility Investigation

AOC 42 contained Building 516, which was demolished by PIKA in the fall of 2010; soil sampling was conducted after demolition. Soil sampling was conducted to evaluate the presence of environmental impacts from historical operations at AOC 42. Based on the operational history, the COPCs for AOC 42 are RCRA metals and explosives.

Field activities included the collection of ISM soil samples in the area east of the concrete platform and loading dock of former Building 516. One ISM decision unit, with dimensions of approximately 50 feet x 30 feet, was created in this area. A total of 60 increments were collected from the decision unit using a hand auger. Thirty increments from 0- to 6- inches bgs (0642B-516-SS-1AM-SO) and 30 increments from 6- to 12- inches bgs (0642B-516-SS-1BM-SO) were collected in the decision unit. All samples were analyzed for RCRA metals (via SW6010B and SW7471A) and explosives (via SW8330B). Detected results are provided in **Appendix B (Table B.6-2)**.

6.3 DATA GAP ASSESSMENT

Existing data have been evaluated to determine what additional field activities are required to complete characterization of the nature and extent of the soil contamination that were deemed to have data gaps from the initial RFI at Parcel 6 and to address comments received from the NMED contained in a NOD dated June 4, 2019 (NMED, 2019). These NMED disapproval comments (NMED, 2019) were addressed as part of this Supplemental RFI Work Plan and will be incorporated into the RFI Report. In accordance with NMED Comment 9 of the disapproval letter (NMED, 2019), this Supplemental RFI Work Plan does not compare data collected prior to March 20, 2011, to SSLs nor presents these historical data locations on figures.

6.3.1 Nature and Extent Evaluation

The nature and extent of contamination is based on the results provided in **Appendix B (Table B.6-2)**. In accordance with the Permit (NMED, 2015a; Attachment 7), the nature and extent of contamination at Parcel 6 will be delineated to the NMED Residential Direct Contact SSLs, or background values, if higher.

> In 2008, one ISM surface soil sample (FWDA-BLDG516-SS-072208) consisting of 10 increments was collected from 0-1 foot bgs and analyzed for explosives (via SW8330B) and lead (via SW6010) (USACE, 2011 [Figure 10-2]). No explosives were detected, but lead was detected at a low concentration of 21 mg/kg. Based on the release assessment

investigation results, the NMED requested additional multi-incremental (MI) samples be collected from the decision unit. Additional sampling was conducted during the RFI to verify the results from the 2008 release assessment investigation. Two additional ISM samples were collected from the decision unit in 2011 (**Figure 6.1**): 0642B-516-SS-1AM-SO (0- to 6- inches bgs) and 0642B-516-SS-1BM-SO (6- to 12- inches bgs). Each ISM sample consisted of 30 subsamples. Explosives were not detected, but arsenic, barium, cadmium, chromium, lead, and mercury were detected.

6.3.2 Data Gap Summary

The following data gap has been identified for AOC 42, Building 516:

Per NMED Comments 58 and 59 (NMED, 2019), concentrations of ISM samples cannot be directly compared to NMED SSLs. Therefore, without using ISM samples, there are insufficient soil data to characterize the site.

6.4 PRELIMINARY CONCEPTUAL SITE MODEL

There is potential for receptors to be exposed to contamination remaining from historical activities conducted at FWDA. The potential for exposure varies across Parcel 6 because it contains a mix of developed and open spaces that will support different types of land use. Current land use is as an out-of-use military installation undergoing remediation where the receptors could include commercial/industrial workers and construction workers. The properties are anticipated to be transferred to other entities, and therefore, future use by residents, commercial/industrial workers, and construction workers is possible. However, the Permit (NMED, 2015a; Attachment 7) requires that future residential land use be evaluated to support unrestricted future land use by the Army or other future owner, which includes both adult and child receptors.

The preliminary CSM for AOC 42 was prepared in accordance with the human health risk assessment guidance (NMED, 2022) and is shown on **Figure 6.2**. The primary source of potential contaminants is from storage of ammunition. The primary release mechanism is leaks, drips, and spills to the ground surface. Secondary sources of potential contaminants are surface soils. Transport mechanisms may include wind erosion from contaminated surface soils, plant uptake and grazing, leaching and infiltration to subsurface soil, volatilization of contaminants in surface soil to air, infiltration and leaching to groundwater, and stormwater runoff and erosion of surface soil to surface water and sediment. No groundwater wells have been installed at AOC 42; however, TMW18 is located downgradient. Based on the nearest monitoring well (TMW18) to AOC 42, depth to groundwater ranges from 51.16 to 55.83 ft bgs (Eco & Associates, 2023 [Table 4-1]). Groundwater does not discharge to surface water. There are no year-round surface water bodies. Therefore, the surface water/sediment exposure pathways are incomplete.

The primary media of concern being addressed by this Supplemental RFI Work Plan are surface and subsurface soil. Potential exposure pathways are direct contact (including dermal contact, incidental ingestion, and inhalation of dust or particulates) and the soil leaching to groundwater pathways.

AOC 42 is a smaller site (0.03 acre). Current human receptors include commercial/industrial workers. AOC 42 has the potential to support future residential use, commercial/industrial use, and construction workers. The beef ingestion pathway is considered incomplete because AOC 42 is less than two acres in size. Residential land use will be evaluated for this property to comply

with the Permit requirements and to support unrestricted future land use by the Army or other future owner.

The groundwater exposure pathway is incomplete for current receptors. The groundwater exposure pathway is potentially complete for future hypothetical residents. Groundwater is assumed to be used as drinking water until it can be demonstrated that an alternate source of drinking water is readily available to replace groundwater as the primary drinking water source.

The ecological preliminary CSM is discussed in **Section 12.2.5**. AOC 42 (0.03 acre) is smaller than 10% of the home range size for three large home range ecological receptors; therefore, they were eliminated from further evaluation: 1) kit fox (evaluated only for sites greater than 267 acres), 2) red-tailed hawk (evaluated only for sites greater than 177 acres), and 3) pronghorn antelope (evaluated only for sites greater than 342 acres). The NMED guidance requires plants, the deer mouse, and the horned lark to be evaluated at all sites, regardless of size. Therefore, the ecological risk evaluation will consider each of these three receptors. The following exposure pathways are potentially complete as illustrated on **Figure 12.1**:

Plant roots in direct contact with contaminated soil,

Deer mouse and horned lark exposed via dermal contact with soil and incidental ingestion of contaminated soil, and

Deer mouse and horned lark exposed via ingestion of prey items through the food web.

While inhalation is a possible exposure route for ecological receptors, inhalation is considered an insignificant exposure pathway when compared to ingestion and dermal contact.

6.5 PROPOSED SUPPLEMENTAL RFI SAMPLING STRATEGY

DQOs have been developed consistent with the USEPA DQO process. The overall project DQO is to provide representative, repeatable, high-quality data in order to complete the RFI process for Parcel 6. DQOs specific to AOC 42 are presented in **Table 6.1**. A summary of the proposed samples, sample analysis, and QC sample counts are summarized in **Table 6.2**. Proposed sample locations are shown on **Figure 6.3.**

The approach to address data gaps is presented in the following paragraphs:

In accordance with NMED policy, ISM samples are to be used for screening-level decisions only. Therefore, to address Comments 58 and 59 of the disapproval letter (NMED, 2019), in order to make compliance decisions, one discrete soil sample will be collected from two different depths within each half of the AOC 42 ISM decision unit, with sample locations biased toward area(s) where surface soil is stained, vegetation is stressed, and/or rainwater potentially accumulates (i.e., low elevation spots), as applicable. As described in **Section 6.2.2.5**, the ISM grid locations were originally chosen to correspond with the area east of the former building's loading dock. Samples will be collected from 0 to 0.5 feet bgs (0642B-516-SS01-0.0-0.5D-SO and 0642B-516-SS02-0.0-0.5D-SO on **Figure 6.3**) and from 0.5 to 1.0 feet bgs (0642B-516-SS01-0.5-1.0D-SO and 0642B-516-SS02-0.5-1.0D-SO on **Figure 6.3**) at each grid location and analyzed for RCRA metals (via SW6020B and 7471B) and explosives (via SW8330B).

To further characterize the site, one discrete soil sample will be collected from two different depths at locations 10 feet to the north, west, and south of Building 516 as well as in the center of the

building footprint. Samples will be collected from 0 to 0.5 feet bgs (0642B-516-SS03-0.0-0.5D-SO through 0642B-516-SS06-0.0-0.5D-SO on **Figure 6.3**) and from 0.5 to 1.0 feet bgs (0642B-516-SS03-0.5-1.0D-SO through 0642B-516-SS06-0.5-1.0D-SO on **Figure 6.3**) at each of the four locations and analyzed for RCRA metals (via SW6020B and 7471B) and explosives (via SW8330B).

Following the data collection and analysis per **Section 11.0**, data will be evaluated as described in **Section 12.0**.

7.0 AOC 80 – FEATURE 9

This section summarizes the background, previous investigations, data gaps, the preliminary CSM, and provides details on the proposed Supplemental RFI sampling for the AOC 80, Feature 9.

7.1 BACKGROUND

7.1.1 Location, Description, and Operational History

AOC 80 is located in the north-central portion of Parcel 6, as shown in **Figure 7.1**. This AOC was described as Feature 9 on the 1962 aerial photo (API-3) in the 1995 Archive Search Report (USACE, 1995). The 1935 aerial photograph showed a pre-WWII magazine located in the west-central portion of the AOC. It is expected that this building was removed sometime between 1940 and 1941. The 1948 and later aerial photographs indicate that AOC 80 is a partially scarred soil area; however, soil scarring appears to be limited to the location of the pre-WWII magazine and the dirt roads historically leading to this location. Based on the review of available aerial photography and historical documents, there was no indication of active operations at this AOC from 1941 to the present.

No known wastes or contaminants were historically released at AOC 80. This site was identified as an AOC based solely on aerial photography. Explosives were handled in nearby areas and were potentially stored in temporary open storage configurations near AOC 80. Therefore, explosives and RCRA metals are the COPCs for this site. Other contaminants are not expected at this location because AOC 80 appears to have been historically undeveloped land with no indication of active operations following the removal of the pre-WW II magazine prior to 1941 (USACE, 2011).

7.1.2 Surface and Subsurface Conditions

AOC 80 has a generally flat topography with a vegetative cover of grass and sagebrush. Previous subsurface investigations have not been completed at AOC 80.

7.2 PREVIOUS INVESTIGATIONS

A Historical Records review, Site Reconnaissance, Release Assessment, and soil investigations have been conducted at AOC 80, as discussed in this section. While no groundwater characterization specific to AOC 80 has been performed to date, groundwater issues are being addressed on a facility-wide level. RFI sampling locations are shown on **Figure 7.1**. Locations of samples collected at AOC 80 prior to the 2011 RFI are presented in the RFI Work Plan (USACE, 2011 [Figure 15-2]).

7.2.1 Nonsampling Data

An aerial photography analysis was completed in 2006 based on aerial imagery obtained during a search of government and commercial records (ERI, 2006). The photographs were analyzed utilizing a stereoscope to locate potential sources of contamination and to record any findings inside the boundaries of the known AOCs and SWMUs. Aerial images dated from 1935 to 1997 were catalogued. The summary of imagery analysis provided for AOC 80 in the 2006 report is as follows:

1935 – No significant findings

1948 – Disturbed ground, light-toned material and a ground scar are present

1952 – Disturbed ground, light-toned material and a ground scar are present

1958 – Disturbed ground, light-toned material and a ground scar are present

1962 – Disturbed ground and light-toned material are present

1966 – No significant findings

1973 – Disturbed ground and light-toned material are present

1978 – Disturbed ground and light-toned material remain

1985 – Disturbed ground and light-toned material remain

1991 – Disturbed ground and light-toned material remain

1993 – No photo coverage

1997 – No significant findings.

Based on further review of the 2006 report and the aerial photographs, it appears that the report states "no significant findings" if there were no observed environmental concerns. However, this statement does not mean that other changes to the area were not observed.

7.2.2 Sampling Data

7.2.2.1 Historical Records/Document Review

None of the historical documents reviewed suggested that releases of hazardous wastes or hazardous constituents occurred at AOC 80. As noted in the aerial photograph analysis report (ERI, 2006), there were no significant findings for AOC 80 on any of the photos reviewed from 1935 to 1997 that would suggest a release to the environment at this site, other than the ground scars remaining from the pre-WWII magazine (USACE, 2011).

7.2.2.2 Site Reconnaissance Findings

Site reconnaissance was completed at AOC 80 on July 21, 2008. A site walk revealed several small areas containing metallic scrap consisting of nails, bolts, metal packaging banding, as well as a few old soda bottles in the northern and western portions of AOC 80 and one area in the northern portion of AOC 80 where some broken concrete fragments were present and where possibly a concrete truck was washed out (USACE, 2011).

7.2.2.3 2008 Release Assessment Soil Sampling

Surface soil samples (FWDA-AOC80-01 through FWDA-AOC80-03) were collected at three general locations at AOC 80 (USACE, 2011 [Figure 15-2]). ISM samples were collected from 0-1 ft bgs from each of the three locations and analyzed for explosives (via SW8330B) and for lead (via SW6010). Each of the three ISM samples (plus one field duplicate) consisted of 10 increments taken from each 200-foot-by-200-foot sampling grid that were composited into one ISM sample.

Results indicated that four explosives compounds (1,3,5-trinitrobenzene, 2,4-dinitrotoluene, 2,6-dinitrololuene, and RDX) as well as lead were detected at low or qualified concentrations (USACE, 2011 [Table 15-1]). Based on the release assessment investigation results, the NMED directed that additional ISM samples be collected from each decision unit and additional decision

units be created to provide more complete coverage of AOC 80 (NMED, 2010a).

7.2.2.4 2011 RCRA Facility Investigation

Soil sampling was conducted to evaluate the presence of environmental impacts from historical operations at AOC 80. Based on the operational history, the COPCs for AOC 80 are explosives and RCRA metals.

Two ISM soil samples were collected from 24 decision units (48 ISM samples total) in AOC 80 to evaluate the possibility of a release of hazardous constituents from FWDA operations and to assess whether such a release could pose unacceptable risk to human receptors. ISM soil samples were collected from the 24 decision units. From each of the 24 decision units, one surface soil ISM sample was collected from 0- to 6-inches bgs, and one subsurface soil ISM sample was collected from 6- to 12-inches bgs. Each decision unit had dimensions of approximately 100 feet by 100 feet. A total of 100 increments were collected from each decision unit using a hand auger; 50 increments from 0- to 6 inches bgs, and 50 increments from 6- to 12-inches bgs, resulting in a total of 48 ISM samples. Previous sampling locations are shown on **Figure 7.1**. All samples were analyzed for RCRA metals (via SW6010B and SW7471A) and explosives (via SW8330B). Detected results are provided in **Appendix B (Table B.7-2)**.

7.3 DATA GAP ASSESSMENT

Existing data have been evaluated to determine what additional field activities are required to complete characterization of the nature and extent of the soil contamination that were deemed to have data gaps from the initial RFI at Parcel 6 and to address comments received from the NMED contained in a NOD dated June 4, 2019 (NMED, 2019). These NMED disapproval comments (NMED, 2019) were addressed as part of this Supplemental RFI Work Plan and will be incorporated into the RFI Report. In accordance with NMED Comment 9 of the disapproval letter (NMED, 2019, this Supplemental RFI Work Plan does not compare data collected prior to March 20, 2011, to SSLs nor presents these historical data locations on figures.

7.3.1 Nature and Extent Evaluation

The nature and extent of contamination is based on the results provided in **Appendix B (Table B.7-2)**. In accordance with the Permit (NMED, 2015a; Attachment 7), the nature and extent of contamination at Parcel 6 will be delineated to the NMED Residential Direct Contact SSLs, or background values, if higher.

> In the 2008 Release Assessment, three ISM samples (FWDA-AOC80-01 through FWDA-AOC80-03, plus one field duplicate) were collected from 0-1 ft bgs and analyzed for explosives and lead. Each of the three ISM samples consisted of 10 increments. Four explosives and lead were detected. Based on the 2008 release assessment investigation results, the NMED directed that additional ISM samples be collected from each decision unit and additional decision units be created to provide more complete coverage of AOC 80 (NMED, 2010a). Forty-eight ISM samples were subsequently collected from 24 decision units at AOC 80 as part of the 2011 RFI. All samples were analyzed for RCRA metals (EPA Methods 6010B and 7471A) and explosives (EPA Method 8330B). Each ISM sample consisted of 50 subsamples. Explosives were not detected in the 2011 samples, but several metals were detected.

7.3.2 Data Gap Summary

The following data gap has been identified for AOC 80, Feature 9:

> Per NMED Comment 60 (NMED, 2019), concentrations of ISM samples cannot be directly compared to NMED SSLs. Therefore, there are insufficient soil data to characterize the site.

7.4 PRELIMINARY CONCEPTUAL SITE MODEL

There is potential for receptors to be exposed to contamination remaining from historical activities conducted at FWDA. The potential for exposure varies across Parcel 6 because it contains a mix of developed and open spaces that will support different types of land use. Current land use is as an out-of-use military installation undergoing remediation where the receptors could include commercial/ industrial workers and construction workers. The properties are anticipated to be transferred to other entities, and therefore, future use by residents, commercial/industrial workers, and construction workers is possible. However, the Permit (NMED, 2015a; Attachment 7) requires that future residential land use be evaluated to support unrestricted future land use by the Army or other future owner, which includes both adult and child receptors.

The preliminary CSM for AOC 80 was prepared in accordance with the human health risk assessment guidance (NMED, 2022) and is shown on **Figure 7.2**. The primary source of potential contaminants is the magazine storage area. The primary release mechanism is leaks, drips, and spills to the ground surface. Secondary sources of potential contaminants are surface soils. Transport mechanisms may include wind erosion from contaminated surface soils, plant uptake and grazing, leaching and infiltration to subsurface soil, volatilization of contaminants in surface soil to air, infiltration and leaching to groundwater, and stormwater runoff and erosion of surface soil to surface water and sediment. No groundwater wells have been installed at AOC 80. Groundwater does not discharge to surface water. There are no year-round surface water bodies. Therefore, the surface water/sediment exposure pathways are incomplete.

The primary media of concern being addressed by this Supplemental RFI Work Plan are surface and subsurface soil. Potential exposure pathways are direct contact (including dermal contact, incidental ingestion, and inhalation of dust or particulates) and the soil leaching to groundwater pathways.

AOC 80 is a larger site (16.9 acres). Current human receptors include commercial/industrial workers. AOC 80 has the potential to support future residential use, commercial/industrial use, and construction workers. The beef ingestion pathway is considered potentially complete because AOC 80 is greater than two acres in size and will be evaluated qualitatively as described in Section 12.1.3.2. Residential land use will be evaluated for this property to comply with the Permit requirements and to support unrestricted future land use by the Army or other future owner.

The groundwater exposure pathway is incomplete for current receptors. The groundwater exposure pathway is potentially complete for future hypothetical residents. Groundwater is assumed to be used as drinking water until it can be demonstrated that an alternate source of drinking water is readily available to replace groundwater as the primary drinking water source.

The ecological preliminary CSM is discussed in **Section 12.2.5**. AOC 80 (16.9 acres) is smaller than 10% of the home range size for three large home range ecological receptors; therefore, they were eliminated from further evaluation: 1) kit fox (evaluated only for sites greater than 267 acres),

2) red-tailed hawk (evaluated only for sites greater than 177 acres), and 3) pronghorn antelope (evaluated only for sites greater than 342 acres). The NMED guidance requires plants, the deer mouse, and the horned lark to be evaluated at all sites, regardless of size. Therefore, the ecological risk evaluation will consider each of these three receptors. The following exposure pathways are potentially complete as illustrated on **Figure 12.1**:

Plant roots in direct contact with contaminated soil,

Deer mouse and horned lark exposed via dermal contact with soil and incidental ingestion of contaminated soil, and

Deer mouse and horned lark exposed via ingestion of prey items through the food web.

While inhalation is a possible exposure route for ecological receptors, inhalation is considered an insignificant exposure pathway when compared to ingestion and dermal contact.

7.5 PROPOSED SUPPLEMENTAL RFI SAMPLING STRATEGY

DQOs have been developed consistent with the USEPA DQO process. The overall project DQO is to provide representative, repeatable, high-quality data in order to complete the RFI process for Parcel 6. DQOs specific to AOC 80 are presented in **Table 7.1**. A summary of the proposed samples, sample analysis, and QC sample counts are summarized in **Table 7.2**. Proposed sample locations are shown on **Figure 7.3.**

The approach to address data gaps is presented in the following paragraphs:

In accordance with NMED policy, ISM samples are to be used for screening-level decisions only. Therefore, to address Comment 60 of the disapproval letter (NMED, 2019), in order to make compliance decisions, one discrete soil sample will be collected from two different depths at each sample location within each of the 24 AOC 80 ISM decision units, with sample locations biased toward area(s) where surface soil is stained, vegetation is stressed, and/or rainwater potentially accumulates (i.e., low elevation spots), as applicable. As described in Sections 7.2.2.2 and 7.2.2.3, the ISM grid locations were originally located based on site reconnaissance findings, with additional ISM samples added at the request of NMED (2010a). Therefore, discrete samples will be collected from each decision unit identified for sampling in the initial RFI effort. Samples will be collected from 0 to 0.5 feet bgs (0680-SS01-0.0-0.5D-SO through 0680-SS24-0.0-0.5D-SO on **Figure 7.3**) and from 0.5 to 1.0 feet bgs (0680-SS01-0.5-1.0D-SO through 0680-SS24-0.5-1.0D-SO on **Figure 7.3**) at each grid location and analyzed for RCRA metals (via SW6020B and 7471B) and explosives (via SW8330B).

Following the data collection and analysis per **Section 11.0**, data will be evaluated as described in **Section 12.0**.

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8.0 AOC 81 – FEATURE 11

This section summarizes the background, previous investigations, data gaps, the preliminary CSM, and provides details on the proposed Supplemental RFI sampling for the AOC 81, Feature 11.

8.1 BACKGROUND

8.1.1 Location, Description, and Operational History

AOC 81 is located in the north-central portion of Parcel 6, as shown in **Figure 8.1**. This AOC is described as Feature 11 on the 1962 aerial photo (API-3) in the 1995 Archive Search Report (USACE, 1995). A building the same size as the boundary of this AOC is present at the site, beginning with the 1948 aerial photograph. This building is visible in the 1958 aerial photograph and has been removed by the 1962 aerial photograph. Based on review of the 1962 aerial photograph, the former building at this location may have burned down.

Review of historical FWDA maps for this area lists AOC 81 as an Open Storage Site or a Standard Ammunition Magazine. A temporary building number of X-19 or T-330 is listed for AOC 81. Standard Ammunition Magazines were located at various places across the depot and consisted of covered open-air structures with no walls. Munitions were temporarily stored at these locations from the 1940s to the 1960s. Based on review of the aerial photographs and available documents, munitions were temporarily stored at AOC 81 beginning sometime between 1940 and 1941 and ceased sometime between 1958 and 1962. A 1967 map shows the temporary building identification number had been removed for AOC 81 while other open storage activities continued nearby. This gives further indication that the former building at this location burned down, causing operations at this location to cease.

No known wastes or contaminants were historically released at AOC 81. This site was identified as an AOC based solely on aerial photography. Explosives were handled and stored at AOC 81. Therefore, explosives and RCRA metals are considered the COPCs for this site. Other contaminants are not expected at this location because historical documentation indicates that this site was only used for the temporary storage of munitions (USACE, 2011).

8.1.2 Surface and Subsurface Conditions

AOC 81 has a generally flat topography with a vegetative cover of grass and sagebrush. Previous subsurface investigations have not been completed at AOC 81.

8.2 PREVIOUS INVESTIGATIONS

A Historical Records review, Site Reconnaissance, and two soil investigations have been conducted at AOC 81, as discussed in this section. While no groundwater characterization specific to AOC 81 has been performed to date, groundwater issues are being addressed on a facility-wide level. RFI sampling locations are shown on **Figure 8.1**. Locations of samples collected at AOC 81 prior to the 2011 RFI are presented in the RFI Work Plan (USACE, 2011 [Figure 16-2]).

8.2.1 Nonsampling Data

Nonsampling data available for AOC 81 are summarized below.

8.2.1.1 Aerial Report

An aerial photography analysis was completed in 2006 based on aerial imagery obtained during a search of government and commercial records (ERI, 2006). The photographs were analyzed utilizing a stereoscope to locate potential sources of contamination and to record any findings inside the boundaries of the known AOCs and SWMUs. Aerial images dated from 1935 to 1997 were catalogued. The summary of imagery analysis provided for AOC 81 in the 2006 report is as follows:

1935 – No significant findings

1948 – A rectangular building is present; no significant findings

1952 – Rectangular scar/building foundation; no significant findings

1958 – No significant findings

1962 – Dark-toned material or staining is present west and south of the site

1966 – No significant findings

1973 – No significant findings

1978 – No significant findings

1985 – No significant findings

1991 – No significant findings

1993 – No photo coverage

1997 – No significant findings

Based on further review of the 2006 report and the aerial photographs, it appears that the report states “no significant findings” if there were no observed environmental concerns. However, this statement does not mean that other changes to the area were not observed.

8.2.1.2 Report of Investigation for Potential Environmental Areas of Concern

The *Report of Investigation for Potential Environmental Areas of Concern* (USACE, 2007) documents an investigation completed at AOCs located outside of the boundaries of current SWMUs and AOCs. Investigation activities were not completed within AOC 81. However, the report includes background information relevant to areas at the FWDA installation that were previously used to temporarily store inert items and ordnance, such as AOC 81. The report indicates that buildings designated with an X- identifier were wood-framed structures with a roof but no walls. These buildings had earth or gravel floors and were present at the FWDA installation from approximately 1945 to 1980. Areas with a T- identifier were flat open storage areas with no associated building that were present at the FWDA installation from approximately 1945 to 1948 (USACE, 2011).

8.2.2 Sampling Data

8.2.2.1 Historical Records/Documents Review

None of the historical documents reviewed suggested that releases of hazardous wastes or hazardous constituents occurred at AOC 81. As discussed above, this site was identified as an

AOC based on aerial photography that was previously interpreted to have been an area of dark-toned soil. However, further evaluation of the aerial photography indicates that the area of dark-toned soil previously contained an Open Storage Site or a Standard Ammunition Magazine, which was a building used for the temporary storage of munitions. Based on available documentation, storage of munitions occurred at this site beginning sometime between 1940 and 1941 and continued until sometime between 1958 and 1962 (USACE, 2011).

8.2.2.2 Site Reconnaissance Findings

Site reconnaissance was completed at AOC 81 on July 18, 2008. A site walk revealed several prairie dog holes and ant hills, but no man-made debris were observed at the ground surface at AOC 81 (USACE, 2011).

8.2.2.3 2008 Release Assessment Soil Sampling

In 2008, one ISM surface soil sample (FWDA-AOC81-SS-072108) was collected from 0-1 ft bgs at AOC 81 and analyzed for explosives (via SW8330B) and lead (via SW6010) (USACE, 2011 [Figure 16-2]). The ISM sample consisted of 10 increments taken from a sampling grid covering the extent of the AOC that was composited into one ISM sample.

No explosives were detected in the sample collected from AOC 81. Lead was detected. Based on the release assessment investigation results, the NMED directed that additional ISM samples be collected from each decision unit and additional decision units be created to provide more complete coverage of AOC 81 (NMED, 2010a).

8.2.2.4 2011 RCRA Facility Investigation

Soil sampling was conducted to evaluate the potential presence of environmental impacts from historical operations at AOC 81. Based on the operational history, the COPCs for AOC 81 are explosives and RCRA metals.

Six ISM soil samples were collected within the AOC boundary. Due to its size, AOC 81 was divided into three decision units for the RFI (USACE, 2011 [Figure 16-3]). A total of 100 increments were collected from each decision unit using a hand auger. Fifty increments were collected from 0- to 6-inches bgs, and 50 increments were collected from 6- to 12-inches bgs in each decision unit. All samples were analyzed for RCRA metals (via SW6010B and SW7471A) and explosives (via SW8330B). Detected results are provided in **Appendix B (Table B.8-2)**.

8.3 DATA GAP ASSESSMENT

Existing data have been evaluated to determine what additional field activities are required to complete characterization of the nature and extent of the soil contamination that were deemed to have data gaps and to address comments received from the NMED contained in a NOD dated June 4, 2019 (NMED, 2019). These NMED disapproval comments (NMED, 2019) were addressed as part of this Supplemental RFI Work Plan and will be incorporated into the RFI Report. In accordance with NMED Comment 9 of the disapproval letter (NMED, 2019), this Supplemental RFI Work Plan does not compare data collected prior to March 20, 2011 to SSLs nor presents these historical data locations on figures.

8.3.1 Nature and Extent Evaluation

The nature and extent of contamination is based on the results provided in **Appendix B (Table**

B.8-2). In accordance with the Permit (NMED, 2015a; Attachment 7), the nature and extent of contamination at Parcel 6 will be delineated to the NMED Residential Direct Contact SSLs, or background values, if higher.

In 2008 Release Assessment, one ISM surface soil sample (FWDA-AOC81-SS-072108) was collected from 0-1 ft bgs and analyzed for explosives and lead. The ISM sample consisted of 10 increments. Explosives were not detected, but lead was detected. Based on the release assessment investigation results, the NMED directed that additional samples be collected at AOC 81 (NMED, 2010a). Six ISM samples were collected from three decision units at AOC 81 in the 2011 RFI. Each ISM sample consisted of 50 subsamples. Explosives were not detected, but metals were detected.

8.3.2 Data Gap Summary

The following data gaps have been identified for AOC 81, Feature 11:

Per NMED Comment 63 (NMED, 2019), concentrations of ISM samples cannot be directly compared to NMED SSLs. Therefore, without using ISM samples, there are insufficient soil data to characterize the site.

Dioxins/furans could be associated with a potential fire at a former building at AOC 81 (see **Section 8.1.1**). Dioxins/furans have not been evaluated at AOC 81.

8.4 PRELIMINARY CONCEPTUAL SITE MODEL

There is potential for receptors to be exposed to contamination remaining from historical activities conducted at FWDA. The potential for exposure varies across Parcel 6 because it contains a mix of developed and open spaces that will support different types of land use. Current land use is as an out-of-use military installation undergoing remediation where the receptors could include commercial/ industrial workers and construction workers. The properties are anticipated to be transferred to other entities, and therefore, future use by residents, commercial/industrial workers, and construction workers is possible. However, the Permit (NMED, 2015a; Attachment 7) requires that future residential land use be evaluated to support unrestricted future land use by the Army or other future owner, which includes both adult and child receptors.

The preliminary CSM for AOC 81 was prepared in accordance with the human health risk assessment guidance (NMED, 2022) and is shown on **Figure 8.2**. The primary source of potential contaminants is from an open storage area/standard ammunition magazine. The primary release mechanism is leaks, drips, and spills to the ground surface. Secondary sources of potential contaminants are surface soils. Transport mechanisms may include wind erosion from contaminated surface soils, plant uptake and grazing, leaching and infiltration to subsurface soil, volatilization of contaminants in surface soil to air, infiltration and leaching to groundwater, and stormwater runoff and erosion of surface soil to surface water and sediment. No groundwater wells have been installed at AOC 81. Groundwater does not discharge to surface water. There are no year-round surface water bodies. Therefore, the surface water/sediment exposure pathways are incomplete.

The primary media of concern being addressed by this Supplemental RFI Work Plan are surface and subsurface soil. Potential exposure pathways are direct contact (including dermal contact, incidental ingestion, and inhalation of dust or particulates) and the soil leaching to groundwater pathways.

AOC 81 is a smaller site (0.47 acre). Current human receptors include commercial/industrial workers. AOC 81 has the potential to support future residential use, commercial/industrial use, and construction workers. The beef ingestion pathway is considered incomplete because AOC 81 is less than two acres in size. Residential land use will be evaluated for this property to comply with the Permit requirements and to support unrestricted future land use by the Army or other future owner.

The groundwater exposure pathway is incomplete for current receptors. The groundwater exposure pathway is potentially complete for future hypothetical residents. Groundwater is assumed to be used as drinking water until it can be demonstrated that an alternate source of drinking water is readily available to replace groundwater as the primary drinking water source.

The ecological preliminary CSM is discussed in **Section 12.2.5**. AOC 81 (0.47 acre) is smaller than 10% of the home range size for three large home range ecological receptors; therefore, they were eliminated from further evaluation: 1) kit fox (evaluated only for sites greater than 267 acres), 2) red-tailed hawk (evaluated only for sites greater than 177 acres), and 3) pronghorn antelope (evaluated only for sites greater than 342 acres). The NMED guidance requires plants, the deer mouse, and the horned lark to be evaluated at all sites, regardless of size. Therefore, the ecological risk evaluation will consider each of these three receptors. The following exposure pathways are potentially complete as illustrated on **Figure 12.1**:

Plant roots in direct contact with contaminated soil,

Deer mouse and horned lark exposed via dermal contact with soil and incidental ingestion of contaminated soil, and

Deer mouse and horned lark exposed via ingestion of prey items through the food web.

While inhalation is a possible exposure route for ecological receptors, inhalation is considered an insignificant exposure pathway when compared to ingestion and dermal contact.

8.5 PROPOSED SUPPLEMENTAL RFI SAMPLING STRATEGY

DQOs have been developed consistent with the USEPA DQO process. The overall project DQO is to provide representative, repeatable, high-quality data in order to complete the RFI process for Parcel 6. DQOs specific to AOC 81 are presented in **Table 8.1**. A summary of the proposed samples, sample analysis, and QC sample counts are summarized in **Table 8.2**. Proposed sampling locations are shown on **Figure 8.3.**

The approach to address data gaps is presented in the following paragraphs:

In accordance with NMED policy, ISM samples are to be used for screening-level decisions only. Therefore, to address Comment 63 of the disapproval letter (NMED, 2019), in order to make compliance decisions, one discrete soil sample will be collected from two different depths at each sample location within each of the three AOC 81 ISM sample decision units, with sample locations biased toward area(s) where surface soil is stained, vegetation is stressed, and/or rainwater potentially accumulates (i.e., low elevation spots), as applicable. As described in Sections 8.2.2.1 through 8.2.2.3, the ISM grid locations were originally located based on site reconnaissance findings, with additional ISM samples added at the request of NMED (2010a). Therefore, discrete samples will be collected from each decision unit identified for sampling in the initial RFI effort. Samples will be collected from 0 to 0.5 feet bgs (0681-SS01-0.0-0.5D-SO through 0681-SS03-

0.0-0.5D-SO on **Figure 8.3**) and from 0.5 to 1.0 feet bgs (0681-SS01-0.5-1.0D-SO through 0681-SS03-0.5-1.0D-SO on **Figure 8.3**) at each grid location and analyzed for RCRA metals (via SW6020B and 7471B), explosives (via SW8330B), and dioxins/furans (via SW8290).

Following the data collection and analysis per **Section 11.0**, data will be evaluated as described in **Section 12.0**.

9.0 AOC 83 – FEATURE 22

This section summarizes the background, previous investigations, data gaps, the preliminary CSM, and provides details on the proposed Supplemental RFI sampling for the AOC 83, Feature 22.

9.1 BACKGROUND

9.1.1 Location, Description, and Operational History

AOC 83 is located in the west-central portion of Parcel 6, as shown in **Figure 9.1**. Representative photographs provided in the RFI Work Plan (USACE, 2011 [Photographs 17-1 and 17-2]) show multiple views of AOC 83. This AOC is described as Feature 22 on 1973 aerial photo (API-5) in the 1995 Archive Search Report (USACE, 1995). The 1935 aerial photograph shows a pre-WWII magazine located in the central portion of the AOC. It is suspected that this building was removed sometime between 1940 and 1941. In the 1948 aerial photograph, a long rectangular building is present at the site oriented from north to south and extending from the location of the pre-WWII magazine to the south beyond the extent of the AOC. The building is present through the 1962 aerial photograph, but it had been removed by the time of the 1966 aerial photograph.

Review of historical FWDA maps for this area lists a portion of AOC 83 as an Open Storage Site or a Standard Ammunition Magazine. A temporary building number of Z-219 or X-20 is listed for this area. Standard Ammunition Magazines were located at various places across the depot and consisted of covered open-air structures with no walls. Munitions were temporarily stored at these locations from the 1940s to the 1960s. Based on review of the aerial photographs and available documents, munitions were temporarily stored at AOC 83 beginning sometime between 1940 and 1941. Storage operations ceased sometime between 1962 and 1966 (USACE, 2011).

9.1.2 Surface and Subsurface Conditions

AOC 83 has a generally flat topography with a vegetative cover of grass and sagebrush. Previous subsurface investigations have not been completed at AOC 83.

9.2 PREVIOUS INVESTIGATIONS

A Historical Records review, Site Reconnaissance, and two soil investigations have been conducted at AOC 83, as discussed in this section. While no groundwater characterization specific to AOC 83 has been performed to date, groundwater issues are being addressed on a facility-wide level. RFI sampling locations are shown on **Figure 9.1**. Locations of samples collected at AOC 83 prior to the 2011 RFI are presented in the RFI Work Plan (USACE, 2011 [Figure 17-3]).

9.2.1 Nonsampling Data

Nonsampling data available for AOC 83 are summarized below.

9.2.1.1 Aerial Report

An aerial photography analysis was completed in 2006 based on aerial imagery obtained during a search of government and commercial records (ERI, 2006). The photographs were analyzed utilizing a stereoscope to locate potential sources of contamination and to record any findings inside the boundaries of the known AOCs and SWMUs. Aerial images dated from 1935 to 1997

were catalogued. The summary of imagery analysis provided for AOC 83 in the 2006 report is as follows:

1935 – No significant findings

1948 – A building is present; no significant findings

1952 – A building is present; no significant findings

1958 – A building is present; no significant findings

1962 – A building is present; no significant findings

1966 – The building seen in 1962 has been removed

1973 – Stacked material is present onsite; disturbed ground and erosional features are present to the east

1978 – A graded area is present with probable stacked material

1985 – No significant findings

1991 – No significant findings

1993 – No photo coverage

1997 – No significant findings

Based on further review of the 2006 report and the aerial photographs, it appears that the report states "no significant findings" if there were no observed environmental concerns. However, this statement does not mean that other changes to the area were not observed.

9.2.1.2 Report of Investigation for Potential Environmental Areas of Concern

The *Report of Investigation for Potential Environmental Areas of Concern* (USACE, 2007) documents an investigation completed at AOCs located outside of the boundaries of current SWMUs and AOCs. Investigation activities were not completed within AOC 83. However, the report includes background information relevant to areas at the FWDA installation that were previously used to temporarily store inert items and ordnance, such as AOC 83. The report indicates that buildings designated with an X- identifier were wood-framed structures with a roof but no walls. These buildings had earth or gravel floors and were present at the FWDA installation from approximately 1945 to 1980. Areas with a Z- identifier were either buildings such as those with the X- identifier or were flat open storage areas with no associated building that were present at the FWDA installation from approximately 1945 to 1980 (USACE, 2011).

9.2.1.3 Final Report on Airborne Geophysical Survey

In January 2009, a low-altitude airborne vertical magnetic gradient geophysical survey was conducted over the FWDA. The objective of the survey was to collect data over areas delineated by the United States Army Engineering Support Center to define the limits of UXO contamination with an emphasis on pits and trenches. The main survey area consisted of 1,650 acres; however, due to topography and vegetation, only 1,489 acres were actually surveyed. The typical survey altitude was 1 to 5 meters above ground level in the low, flat areas, and 5 to 10 meters above ground level in the valleys and rugged terrain areas.

The results of the airborne geophysical survey for AOC 83 are presented in the Work Plan (USACE, 2011 [Figure 17-2]). The magnetic anomalies visible in AOC 83 are related to gravel

imported to the site for the temporary building pad and road base.

9.2.2 Sampling Data

9.2.2.1 Historical Records/Documents Review

None of the historical documents reviewed suggested that releases of hazardous wastes or hazardous constituents occurred at AOC 83. As discussed above, this site was identified as an AOC based on aerial photography that was previously interpreted to have been an area disturbed ground or stacked material. However, further evaluation of the aerial photography indicates that AOC 83 previously contained an Open Storage Site or a Standard Ammunition Magazine, which was a building used for the temporary storage of munitions. Based on available documentation, storage of munitions occurred at this site beginning sometime between 1940 and 1941 and continued until sometime between 1962 and 1966 when the building was removed (USACE, 2011).

9.2.2.2 Site Reconnaissance Findings

Site reconnaissance was completed at AOC 83 on July 18, 2008. A site walk revealed several pieces of metal packaging banding and several 37 millimeter (mm) ammunition storage can lids (USACE, 2011).

9.2.2.3 2008 Release Assessment Soil Sampling

In 2008, one ISM surface soil sample was collected at AOC 83 and analyzed for explosives (via SW8330B and for lead (via SW6010). The ISM sample location was selected based on the site reconnaissance in an area with debris. The MI sample consisted of 10 individual sample locations taken from a 150-foot-by-150-foot sampling grid and composited into one MI sample.

No explosives were positively detected in the ISM sample collected from AOC 83. Lead was detected in the ISM sample. Analytical results are included in the RFI Work Plan (USACE, 2011 [Table 17-1]). Based on the release assessment investigation results, the NMED directed additional ISM samples be collected from AOC 83 (NMED, 2010a).

9.2.2.4 2011 RCRA Facility Investigation

Soil sampling was conducted to evaluate the potential presence of environmental impacts from historical operations at AOC 83. Based on the operational history, the COPCs for AOC 83 are explosives and RCRA metals.

Twelve ISM soil samples were collected within the AOC boundary. Due to its size, AOC 83 was divided into six decision units for the RFI (USACE, 2011 [Figure 17-4]). A total of 100 increments were collected from each decision unit using a hand auger. Fifty increments were collected from 0- to 6-inches bgs, and 50 increments were collected from 6- to 12-inches bgs in each decision unit. All samples were analyzed for RCRA metals (via SW6010B and SW7471A) and explosives (via SW8330B). Detected results are provided in **Appendix B (Table B.9-2)**.

To address Comment 7 of the Second NOD letter (NMED, 2010b) on the RFI Work Plan for Parcel 6 (USACE, 2011), the USGS dug three test trenches at AOC 83 to determine if there was waste buried at the site (**Figure 9.1**). There was no history of munitions use in the area or any historical records of MEC burial pits in the area. The probability of finding MEC was considered very low, thus an Ordnance and Explosives Safety Specialist from the USACE Albuquerque District performed UXO construction support during the excavation. Locations were placed where large

anomalies were noted based on a geophysicist's interpretation of the aerial magnetometer survey. Trenches were 3 to 5 feet deep, 5 to 6 feet long, and the width of a backhoe bucket. All excavated material was placed back in the hole. An Army Ordnance and Explosives Safety Specialist monitored the excavation with a Schonstedt magnetometer. No waste material, MEC, munitions debris, or other types of Material Potentially Possessing an Explosive Hazard (MPPEH) were observed.

9.3 DATA GAP ASSESSMENT

Existing data have been evaluated to determine what additional field activities are required to complete characterization of the nature and extent of the soil contamination that were deemed to have data gaps from the initial RFI at Parcel 6 and to address comments received from the NMED contained in a NOD dated June 4, 2019 (NMED, 2019). These NMED disapproval comments (NMED, 2019) were addressed as part of this Supplemental RFI Work Plan and will be incorporated into the RFI Report. In accordance with NMED Comment 9 of the disapproval letter (NMED, 2019), this Supplemental RFI Work Plan does not compare data collected prior to March 20, 2011, to SSLs nor presents these historical data locations on figures.

9.3.1 Nature and Extent Evaluation

The nature and extent of contamination is based on the results provided in **Appendix B (Table B.9-2)**. In accordance with the Permit (NMED, 2015a; Attachment 7), the nature and extent of contamination at Parcel 6 will be delineated to the NMED Residential Direct Contact SSLs, or background values, if higher.

9.3.1.1 Soil Investigation

In 2008 Release Assessment, one ISM surface soil sample (FWDA-AOC83-SS-072108) was collected from 0–1-foot bgs and analyzed for explosives and lead. The ISM sample consisted of 10 increments. Explosives were not detected, but lead was detected.

Based on the 2008 release assessment investigation results, the NMED directed that additional samples be collected at AOC 83. Twelve ISM samples were collected from six decision units from 0 to 0.5-foot bgs and 0.5 to 1.0 foot bgs at AOC 83 in the 2011 RFI. Each ISM sample consisted of 50 subsamples. Explosives were not detected, but metals were detected.

9.3.1.2 Trench Investigation

Test Trench 1 – The surface area was littered with nails, springs, and various types of boxing and banding material. After the first lifts, no other debris was found. The trench was excavated until highly compacted clay was discovered at a depth of approximately 4 feet. No waste material, MEC, munitions debris, or other types of Material Potentially Possessing an Explosive Hazard (MPPEH) were observed.

Test Trench 2 – The surface area was surveyed before the excavation began. A few nails were found on the surface. After the first lifts, no other debris was found. The trench was excavated to a depth of approximately 4 feet. A large amount of rock was observed at a depth of approximately 3 feet. No waste material, MEC, munitions debris, or other types of MPPEH were observed.

Test Trench 3 – The surface area was surveyed before the excavation began. The surface area was littered with nails, springs, small amounts of roofing material, and various boxing and banding material. After the first lift three lifts, strands of copper wire were found at a depth of approximately 6 inches. Similar wire had previously been discovered on the site at a similar depth. There was no other debris found. The trench was excavated to a depth of approximately 4 feet. No waste material, MEC, munitions debris, or other types of MPPEH were observed.

9.3.2 Data Gap Summary

The following data gap has been identified for AOC 83, Feature 22:

Per NMED Comment 60 (NMED, 2019), concentrations of ISM samples cannot be directly compared to NMED SSLs. Therefore, without using ISM samples, there are insufficient data to characterize the site.

9.4 PRELIMINARY CONCEPTUAL SITE MODEL

There is potential for receptors to be exposed to contamination remaining from historical activities conducted at FWDA. The potential for exposure varies across Parcel 6 because it contains a mix of developed and open spaces that will support different types of land use. Current land use is as an out-of-use military installation undergoing remediation where the receptors could include commercial/ industrial workers and construction workers. The properties are anticipated to be transferred to other entities, and therefore, future use by residents, commercial/industrial workers, and construction workers is possible. However, the Permit (NMED, 2015a; Attachment 7) requires that future residential land use be evaluated to support unrestricted future land use by the Army or other future owner, which includes both adult and child receptors.

The preliminary CSM for AOC 83 was prepared in accordance with the human health risk assessment guidance (NMED, 2022) and is shown on **Figure 9.2**. The primary source of potential contaminants is from an open storage area/standard ammunition magazine. The primary release mechanism is leaks, drips, and spills to the ground surface. Secondary sources of potential contaminants are surface soils. Transport mechanisms may include wind erosion from contaminated surface soils, plant uptake and grazing, leaching and infiltration to subsurface soil, volatilization of contaminants in surface soil to air, infiltration and leaching to groundwater, and stormwater runoff and erosion of surface soil to surface water and sediment. No groundwater wells have been installed at AOC 83. Groundwater does not discharge to surface water. There are no year-round surface water bodies. Therefore, the surface water/sediment exposure pathways are incomplete.

The primary media of concern being addressed by this Supplemental RFI Work Plan are surface and subsurface soil. Potential exposure pathways are direct contact (including dermal contact, incidental ingestion, and inhalation of dust or particulates) and the soil leaching to groundwater pathways.

AOC 83 is a larger site (3.35 acres). Current human receptors include commercial/industrial workers. AOC 83 has the potential to support future residential use, commercial/industrial use, and construction workers. The beef ingestion pathway is considered potentially complete because AOC 83 is greater than two acres in size and will be evaluated qualitatively as described in Section 12.1.3.2. Residential land use will be evaluated for this property to comply with the Permit

requirements and to support unrestricted future land use by the Army or other future owner.

The groundwater exposure pathway is incomplete for current receptors. The groundwater exposure pathway is potentially complete for future hypothetical residents. Groundwater is assumed to be used as drinking water until it can be demonstrated that an alternate source of drinking water is readily available to replace groundwater as the primary drinking water source.

The ecological preliminary CSM is discussed in **Section 12.2.5**. AOC 83 (3.35 acre) is smaller than 10% of the home range size for three large home range ecological receptors; therefore, they were eliminated from further evaluation: 1) kit fox (evaluated only for sites greater than 267 acres), 2) red-tailed hawk (evaluated only for sites greater than 177 acres), and 3) pronghorn antelope (evaluated only for sites greater than 342 acres). The NMED guidance requires plants, the deer mouse, and the horned lark to be evaluated at all sites, regardless of size. Therefore, the ecological risk evaluation will consider each of these three receptors. The following exposure pathways are potentially complete as illustrated on **Figure 12.1**:

Plant roots in direct contact with contaminated soil,

Deer mouse and horned lark exposed via dermal contact with soil and incidental ingestion of contaminated soil, and

Deer mouse and horned lark exposed via ingestion of prey items through the food web.

While inhalation is a possible exposure route for ecological receptors, inhalation is considered an insignificant exposure pathway when compared to ingestion and dermal contact.

9.5 PROPOSED SUPPLEMENTAL RFI SAMPLING STRATEGY

DQOs have been developed consistent with the USEPA DQO process. The overall project DQO is to provide representative, repeatable, high-quality data in order to complete the RFI process for Parcel 6. DQOs specific to AOC 83 are presented in **Table 9.1**. A summary of the proposed samples, sample analysis, and QC sample counts are summarized in **Table 9.2**. Proposed sampling locations are shown on **Figure 9.3.**

The approach to address data gaps is presented in the following paragraphs:

In accordance with NMED policy, ISM samples are to be used for screening-level decisions only. Therefore, to address Comment 60 of the disapproval letter (NMED, 2019), in order to make compliance decisions, one discrete soil sample will be collected from two different depths each of the six AOC 83 ISM sample decision units, with sample locations biased toward area(s) where surface soil is stained, vegetation is stressed, and/or rainwater potentially accumulates (i.e., low elevation spots), as applicable. As described in Sections 9.2.2.2 through 9.2.2.4, the ISM grid locations were originally chosen based on site reconnaissance findings, with additional ISM samples added at the request of NMED (2010a). Samples will be collected from 0 to 0.5 feet bgs (0683-SS01-0.0-0.5D-SO through 0681-SS06-0.0-0.5D-SO on **Figure 9.3**) and from 0.5 to 1.0 feet bgs (0683-SS01-0.5-1.0D-SO through 0681-SS06-0.5-1.0D-SO on **Figure 9.3**) at each ISM decision unit grid location and analyzed for RCRA metals (via SW6020B and 7471B) and explosives (via SW8330B).

To further characterize the site, one discrete soil sample will be collected from two different depths at two locations to the south of the original ISM decision unit grid locations. Samples will be collected from 0 to 0.5 feet bgs (0642B-516-SS07-0.0-0.5D-SO and 0642B-516-SS08-0.0-0.5D-SO on **Figure 9.3**) and from 0.5 to 1.0 feet bgs (0642B-516-SS07-0.5-1.0D-SO and 0642B-516-

SS08-0.5-1.0D-SO on **Figure 9.3**) at each location and analyzed for RCRA metals (via SW6020B and 7471B) and explosives (via SW8330B).

Following the data collection and analysis per **Section 11.0**, data will be evaluated as described in **Section 12.0**.

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10.0 AOC 84 – FEATURE 12

This section summarizes the background, previous investigations, data gaps, the preliminary CSM, and provides details on the proposed Supplemental RFI sampling for the AOC 84, Feature 12.

10.1 BACKGROUND

10.1.1 Location, Description, and Operational History

AOC 84 is located in the north-central portion of Parcel 6, as shown in **Figure 10.1**. Representative photographs provided in the RFI Work Plan (USACE, 2011 [Photographs 18-1 and 18-2]) show various views of AOC 84. This AOC is described as Feature 12 on the 1962 aerial photo (API-3) in the 1995 Archive Search Report (USACE, 1995). The 1935 aerial photograph shows a pre-WWII magazine located in the north central portion of the AOC and another smaller building in the southeast portion of the AOC. It is suspected that these buildings were removed sometime between 1940 and 1941.

10.1.2 Surface and Subsurface Conditions

AOC 84 has a generally flat topography with a vegetative cover of grass and sagebrush. This site contained vast numbers of prairie dog burrows that covered most of the AOC. Previous subsurface investigations have not been completed at AOC 84.

10.2 PREVIOUS INVESTIGATIONS

A Historical Records review, Site Reconnaissance, and two soil investigations have been conducted at AOC 84, as discussed in this section. While no groundwater characterization specific to AOC 84 has been performed to date, groundwater issues are being addressed on a facility-wide level. RFI sampling locations are shown on **Figure 10.1**. Locations of samples collected at AOC 84 prior to the 2011 RFI are presented in the RFI Work Plan (USACE, 2011 [Figure 18-3]).

10.2.1 Nonsampling Data

10.2.1.1 Aerial Report

An aerial photography analysis was completed in 2006 based on aerial imagery obtained during a search of government and commercial records (ERI, 2006). The photographs were analyzed utilizing a stereoscope to locate potential sources of contamination and to record any findings inside the boundaries of the known AOCs and SWMUs. Aerial images dated from 1935 to 1997 were catalogued. The summary of imagery analysis provided for AOC 84 in the 2006 report is as follows:

1935 – No significant findings

1948 – No significant findings

1952 – No significant findings

1958 – No significant findings

1962 – Disturbed ground and dark-toned material are present

1966 – No significant findings

1973 – No significant findings

1978 – No significant findings

1985 – No significant findings

1991 – No significant findings

1993 – No photo coverage

1997 – No significant findings

Based on further review of the 2006 report and the aerial photographs, it appears that the report states "no significant findings" if there were no observed environmental concerns. However, this statement does not mean that other changes to the area were not observed.

10.2.1.2 Final Report on Airborne Geophysical Survey

In January 2009, a low-altitude, airborne, vertical, magnetic gradient, geophysical survey was conducted over FWDA. The objective of the survey was to collect data over areas delineated by United States Army Engineering Support Center to define the limits of UXO contamination with an emphasis on pits and trenches. The main survey area consisted of 1,650 acres; however, due to topography and vegetation, only 1,489 acres were actually surveyed. The typical survey altitude was 1 to 5 meters above ground level in the low, flat areas and 5 to 10 meters above ground level in the valleys and rugged terrain areas. The results of the airborne geophysical survey for AOC 84 are presented in the Work Plan (USACE, 2011 [Figure 18-2]). No significant magnetic anomalies were identified within the boundary of the AOC (Battelle, 2009).

10.2.2 Sampling Data

10.2.2.1 Historical Records/Documents Review

None of the historical documents reviewed suggested that releases of hazardous wastes or hazardous constituents occurred at AOC 84. As noted in the aerial photograph analysis report (ERI, 2006), there were no significant findings for AOC 84 on any of the photos reviewed from 1935 to 1997 that would suggest a release to the environment at this site other than the disturbed ground noted for the 1962 aerial photograph. Upon further evaluation of the aerial photography, the disturbed ground appeared to be caused by natural drainage and vegetation patterns at this location that were still generally present at the site.

10.2.2.2 Site Reconnaissance

Site reconnaissance was completed at AOC 84 on July 21, 2008. A site walk revealed several prairie dog holes and ant hills, but no man-made debris were observed at the ground surface at AOC 84.

10.2.2.3 2008 Release Assessment Soil Sampling

Surface soil samples (FWDA-AOC84-01 through FWDA-AOC84-03) were collected from 0-1 foot bgs at three general locations at AOC 84 (USACE, 2011 [Figure 18-3]). ISM samples were collected from each of the three locations and analyzed for explosives (via SW8330B) and lead (via SW6010). Each of the three ISM samples consisted of 10 increments taken from a 200-foot-

by-200-foot sampling grid that were composited into one ISM sample. Explosives were detected in two of three ISM samples, and low levels of lead were detected in all three ISM samples. Analytical results are included in the RFI Work Plan (USACE, 2011 [Table 18-1]). Based on the release assessment investigation results, the NMED directed additional ISM samples be collected from AOC 84.

10.2.2.4 2011 RCRA Facility Investigation

Soil sampling was conducted to evaluate the presence of potential environmental impacts from historical operations at AOC 84. Based on the previous investigations, the COPCs for AOC 84 are RCRA metals and explosives.

Field activities included the collection of 16 ISM samples within the AOC boundary. The location of the eight RFI decision units was based upon the positive detections of explosives and lead in two of three ISM grids sampled in the 2008 release assessment investigation (USACE, 2011). The third grid from the 2008 release assessment didn't have any explosives detections, thus it wasn't re-sampled during the RFI. A total of 100 increments were collected from each decision unit using a hand auger. Fifty increments were collected from 0- to 6-inches bgs, and 50 increments were collected from 6- to 12-inches bgs. Eight surface soil ISM samples from 0- to 6-inches bgs and eight subsurface soil ISM samples from 6- to 12-inches bgs were collected from AOC 84. All samples were analyzed for RCRA metals (via SW6010B and SW7471A) and explosives (via SW8330B). Detected results are provided in **Appendix B (Table B.10-2)**.

10.3 DATA GAP ASSESSMENT

Existing data have been evaluated to determine what additional field activities are required to complete characterization of the nature and extent of the soil contamination that were deemed to have data gaps from the initial RFI at Parcel 6 and to address comments received from the NMED contained in a NOD dated June 4, 2019 (NMED, 2019). These NMED disapproval comments (NMED, 2019) were addressed as part of this Supplemental RFI Work Plan and will be incorporated into the RFI Report. In accordance with NMED Comment 9 of the disapproval letter (NMED, 2019), this Supplemental RFI Work Plan does not compare data collected prior to March 20, 2011, to SSLs nor presents these historical data locations on figures.

10.3.1 Nature and Extent Evaluation

The nature and extent of contamination is based on the results provided in **Appendix B (Table B.10-2)**. In accordance with the Permit (NMED, 2015a; Attachment 7), the nature and extent of contamination at Parcel 6 will be delineated to the NMED Residential Direct Contact SSLs, or background values, if higher.

> In the 2008 Release Assessment, three surface soil samples (FWDA-AOC84-01 through FWDA-AOC84-03) were collected from 0-1 foot bgs and analyzed for explosives and for lead. Each of the three ISM samples consisted of 10 increments taken from a 200-foot-by-200-foot sampling grid that were composited into one ISM sample. Explosives and lead were detected in the ISM samples. Based on the 2008 release assessment investigation results, the NMED directed additional ISM samples be collected from AOC 84. Additional ISM sampling was conducted from two of the three decision units where there were previous detections of both explosives and lead. Sixteen ISM samples were collected from eight decision units at AOC 84 in the 2011 RFI. Each ISM sample consisted of 50

subsamples. Explosives were not detected, but metals were detected.

10.3.2 Data Gap Summary

The following data gaps have been identified for AOC 84, Feature 12:

> Per NMED Comment 65 (NMED, 2019), the results of the ISM data cannot be used for compliance purposes. In addition, concentrations of ISM samples cannot be directly compared to NMED SSLs. Therefore, without using ISM samples, there are insufficient soil data to characterize the site.

10.4 PRELIMINARY CONCEPTUAL SITE MODEL

There is potential for receptors to be exposed to contamination remaining from historical activities conducted at FWDA. The potential for exposure varies across Parcel 6 because it contains a mix of developed and open spaces that will support different types of land use. Current land use is as an out-of-use military installation undergoing remediation where the receptors could include commercial/ industrial workers and construction workers. The properties are anticipated to be transferred to other entities, and therefore, future use by residents, commercial/industrial workers, and construction workers is possible. However, the Permit (NMED, 2015a; Attachment 7) requires that future residential land use be evaluated to support unrestricted future land use by the Army or other future owner, which includes both adult and child receptors.

The preliminary CSM for AOC 84 was prepared in accordance with the human health risk assessment guidance (NMED, 2022) and is shown on **Figure 10.2**. The primary source of potential contaminants is from nearby temporary open storage. The primary release mechanism is leaks, drips, and spills to the ground surface. Secondary sources of potential contaminants are surface soils. Transport mechanisms may include wind erosion from contaminated surface soils, plant uptake and grazing, leaching and infiltration to subsurface soil, volatilization of contaminants in surface soil to air, infiltration and leaching to groundwater, and stormwater runoff and erosion of surface soil to surface water and sediment. No groundwater wells have been installed at AOC 84. Groundwater does not discharge to surface water. There are no year-round surface water bodies. Therefore, the surface water/sediment exposure pathways are incomplete.

The primary media of concern being addressed by this Supplemental RFI Work Plan are surface and subsurface soil. Potential exposure pathways are direct contact (including dermal contact, incidental ingestion, and inhalation of dust or particulates) and the soil leaching to groundwater pathways.

AOC 84 is a larger site (14.2 acres). Current human receptors include commercial/industrial workers. AOC 84 has the potential to support future residential use, commercial/industrial use, and construction workers. The beef ingestion pathway is considered potentially complete because AOC 84 is greater than two acres in size and will be evaluated qualitatively as described in Section 12.1.3.2. Residential land use will be evaluated for this property to comply with the Permit requirements and to support unrestricted future land use by the Army or other future owner.

The groundwater exposure pathway is incomplete for current receptors. The groundwater exposure pathway is potentially complete for future hypothetical residents. Groundwater is assumed to be used as drinking water until it can be demonstrated that an alternate source of drinking water is readily available to replace groundwater as the primary drinking water source.

The ecological preliminary CSM is discussed in **Section 12.2.5**. AOC 84 (14.2 acres) is smaller than 10% of the home range size for three large home range ecological receptors; therefore, they were eliminated from further evaluation: 1) kit fox (evaluated only for sites greater than 267 acres), 2) red-tailed hawk (evaluated only for sites greater than 177 acres), and 3) pronghorn antelope (evaluated only for sites greater than 342 acres). The NMED guidance requires plants, the deer mouse, and the horned lark to be evaluated at all sites, regardless of size. Therefore, the ecological risk evaluation will consider each of these three receptors. The following exposure pathways are potentially complete as illustrated on **Figure 12.1**:

Plant roots in direct contact with contaminated soil,

Deer mouse and horned lark exposed via dermal contact with soil and incidental ingestion of contaminated soil, and

Deer mouse and horned lark exposed via ingestion of prey items through the food web.

While inhalation is a possible exposure route for ecological receptors, inhalation is considered an insignificant exposure pathway when compared to ingestion and dermal contact.

10.5 PROPOSED SUPPLEMENTAL RFI SAMPLING STRATEGY

DQOs have been developed consistent with the USEPA DQO process. The overall project DQO is to provide representative, repeatable, high-quality data in order to complete the RFI process for Parcel 6. DQOs specific to AOC 84 are presented in **Table 10.1**. A summary of the proposed samples, sample analysis, and QC sample counts are summarized in **Table 10.2**. Proposed sampling locations are shown on **Figure 10.3.**

The approach to address data gaps is presented in the following paragraphs:

In accordance with NMED policy, ISM samples are to be used for screening-level decisions only. Therefore, to address Comment 65 of the disapproval letter (NMED, 2019), in order to make compliance decisions, one discrete soil sample will be collected from two different depths from each of the eight AOC 84 ISM decision units sampled during the RFI in 2011, as well as the four ISM units corresponding to the third ISM grid sampled during the release assessment investigation in 2008 (USACE, 2011 [Figure 18-4]) but omitted during the RFI due to lack of explosives detections. Sample locations will be biased toward area(s) where surface soil is stained, vegetation is stressed, and/or rainwater potentially accumulates (i.e., low elevation spots), as applicable. As described in Sections 10.2.2.2 through 10.2.2.4, the ISM grid locations were originally chosen based on site reconnaissance findings, release assessment sample results, and additional ISM samples added at the request of NMED (2010a). Therefore, discrete samples will be collected from each decision unit identified for sampling in the approved RFI Work Plan (USACE, 2011) and the 2008 release assessment. Samples will be collected from 0 to 0.5 ft bgs (0684-SS01-0.0-0.5D-SO through 0684-SS12-0.0-0.5D-SO on **Figure 10.3**) and from 0.5 to 1.0 ft bgs (0684-SS01-0.5-1.0D-SO through 0684-SS12-0.5-1.0D-SO on **Figure 10.3**) at each grid location and analyzed for RCRA metals (via SW6020B and 7471B) and explosives (via SW8330B).

Following the data collection and analysis per **Section 11.0**, data will be evaluated as described in **Section 12.0**.

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11.0 DESCRIPTION OF INVESTIGATION METHODS

This section provides general information regarding the planned field activities to be completed as part of this Supplemental RFI Work Plan. Information specific to individual SWMU and AOC areas are presented in **Section 3.0 through Section 10.0**.

11.1 SITE SAFETY AND AWARENESS

All work will be accomplished in accordance with Army safety measures. A project-specific Accident Prevention Plan (APP)/Site Safety and Health Plan (SSHP) has been developed for sampling activities at FWDA. The APP/SSHP defines the roles and responsibilities of site personnel, establishes proper levels of personal protective equipment (PPE), and describes emergency response and contingency procedures. The associated Activity Hazard Analyses (AHAs) define hazards associated with each type of work activity and how those hazards will be mitigated. The APP/SSHP will be reviewed by site personnel prior to performing any site work. In addition, task specific AHAs will be reviewed before any new tasks are performed and periodically during daily tailgate safety meetings.

All work will be completed by a supervisor, operators, and technicians that have successfully completed 40-hour Hazardous Waste Operations and Emergency Response training in accordance with *29 U.S. Code of Federal Regulations* 1910.120. A dedicated Site Safety and Health Officer (SSHO) will be on site during all field activities associated with implementation of this Supplemental RFI Work Plan. The SSHO will be responsible for conducting site-specific training, daily tailgate safety meetings, and periodic safety inspections.

The SSHO will also be responsible for ensuring site monitoring, worker training, and effective selection and use of PPE. The SSHO will have completed the Occupational Safety and Health Administration 30-hour Construction Safety Course prior to being tasked to fill the position.

11.2 ASBESTOS CONTAINING MATERIALS

An asbestos survey was conducted for various parcels at FWDA (USACE, 2020). Therefore, the types of ACM present at FWDA have been identified. Therefore, the field team will be briefed prior to initiation of the field work on identification of potential ACM (e.g., materials at FWDA that have previously been identified as ACM, such as roofing materials, floor tiles, insulation material, acoustic tile, etc.). If potential ACM is identified at a sampling location, the location will be documented in the field notes, and to ensure the safety of the field team, the sampling location will be adjusted to the nearest location without potential ACM present. In no instance will the field team handle potential ACM.

11.3 SOIL SAMPLING AND ANALYSIS

This section provides general information regarding the methods that will be employed for various soil sampling activities to be completed during site activities. A summary of analytical methods, sample containers, preservatives, and holding times is provided in **Table 11.1**. The following sections provide details regarding sample collection and management, quality assurance (QA), and quality control (QC).

11.3.1 Surface Soil Sampling

Discrete surface soil samples (from 0 to 1 foot bgs) will be collected using a decontaminated hand auger. If any samples encounter obvious contamination (visible material, staining or odors), or the results are greater than direct contact Human Health Screening Levels that are current at the time the data are evaluated (**Table 11.4**), additional samples will be collected. Discrete step-out surface soil samples may be collected 10 feet (unless indicated otherwise) from the original sample location in up to four directions to define the nature and lateral extent of contamination. Additional soil samples may be collected to define the vertical extent of contamination at locations with exceedances. If additional step-out samples are collected, these samples will be collected from the outermost boring in that direction, and additional QC samples will be collected as needed. Samples will be collected using a decontaminated hand auger as described in **Section 11.3.3**.

11.3.2 Subsurface Soil Sampling

The condition of all drilling, trenching, sampling, and support equipment used for subsurface soil sampling associated with each SWMU-specific investigation and the equipment cleaning procedures will be the same as defined in **Section 11.3.3**. Shallow subsurface samples (less than 2 feet) will be collected using a decontaminated hand auger. Deeper subsurface samples will be collected using direct-push technology or hollow-stem auger equipment utilizing decontaminated split spoons, as appropriate. All boreholes will have a complete record of borehole information as described in **Section 11.7.2**.

11.3.2.1 Direct Push or Hand Auger Method for Subsurface Soil

This section provides procedures for subsurface soil sampling using a direct push type rig (e.g., Geoprobe®), hand auger, or sampling from an excavator bucket. If a direct push rig is used, it shall be operated by an appropriately licensed driller.

The Sampling Team shall complete the following steps to collect soil samples:

1. Spread clean plastic sheeting on the ground or table at each sampling location to keep sampling equipment clean and prevent cross-contamination.
2. Advance the hand auger or DPT tool to the desired sample depth.
3. Collect the sample using an approved sampling tool (e.g., stainless steel or disposable spoon, trowel, or scoop) and scoop the soil from the auger bucket or acetate liner from the DPT rig starting at representative depth ranges as detailed in this Supplemental RFI Work Plan. For hand auguring, use a new, clean auger bucket once the top of the sampling depth is reached.
4. Transfer the sample from the auger bucket or trowel into a large disposable or stainless-steel bowl and mix the combined soil thoroughly to ensure a representative sample. EXCEPTION: If collecting subsurface samples for VOC analysis, the sample will be collected directly from the sample equipment (e.g., auger bucket or acetate sleeve) using a Terra Core® sampler as described in **Section 11.3.2.3**. The soil shall not be mixed before sample collection.
5. Collect suitable quantities with the approved sampling tool and transfer directly into the laboratory supplied clean containers with a moisture-tight lid (or a re-sealable plastic bag for grain size samples).
6. Repeat these steps as necessary to obtain sufficient sample volume.

7. When sample containers are filled, secure the caps tightly on the containers. Lids will be sealed by labels or custody seals to prevent tampering. The sample containers will then be placed into a cooler with ice and cooled to less than or equal to 6 degrees Celsius (≤ 6°C).
8. The soils from the soil core will be logged on a soil boring log and soil recovery, soil characteristics, visual or olfactory signs of contamination, and photo-ionization detector (PID) screening results noted. Soil from each sample will be screened with a PID (with a standard 10.6 eV lamp). In addition, the soil core will be visually inspected for stains or anomalous texture, and PID measurements will be recorded from any stained or anomalous soils. Soil from each sample interval will be placed inside a new, clean plastic bag, sealed, and then mixed with the air in the bag. The bag with soil will be labeled with the sample ID and time and allowed to heat in the sun for approximately 5 minutes. If air temperatures are below 50 degrees F, the sample bag will be allowed to warm inside a building or vehicle for approximately 5 minutes. The PID probe will be inserted or penetrated into the plastic bag and the maximum reading will be recorded on the sample form or boring log, specifying the sample depth. If high sustained PID readings (greater than 100 ppm) are recorded, then additional soil samples will be collected using Terra Core® samplers and analyzed for VOCs.
9. After sampling is completed, backfill the hole with remaining soil to return the site to as close to original condition as possible.

11.3.2.2 Hollow-Stem Auger Method for Subsurface Soil

Soil drilling using the hollow-stem auger method will be accomplished using a truck-mounted auger rig of sufficient size and power to advance augers to the required drilling depth operated by an appropriately licensed driller.

The Sampling Team shall complete the following steps to collect soil samples:

1. Spread clean plastic sheeting on the ground or table at each sampling location to keep sampling equipment clean and prevent cross-contamination.
2. When drilling investigation boreholes, the lead hollow-stem auger will be advanced to the top of the soil interval to be sampled.
3. The selected soil sampling device then will be inserted into the auger string and advanced to the bottom of the soil interval. When using a split-spoon sampler, this device will be advanced to the required depth using a 63.5-kilogram (140-pound) hammer or continuously advanced with the auger string. When using a split-barrel sampler, this device will be hydraulically pushed to the required depth. Samplers used in non-cohesive soils may require the use of a decontaminated catch basket inserted into the shoe of the sampler to obtain recovery. A clean sampling device will be used to collect soil core from each sampled interval of the investigation boreholes.
4. Upon retrieval of the sampling device, the percentage of recovery will be recorded and the contained soil core will be split in half, lengthwise, using a stainless-steel knife. Samples designated for laboratory analysis will be collected from the core using a stainless-steel scoop. EXCEPTION: If collecting subsurface samples for VOC analysis, the sample will be collected directly from the sample equipment (e.g., split spoon) using a Terra Core®

sampler as described in **Section 11.3.2.3**. The soil shall not be mixed before sample collection.

5. Immediately after discrete samples are collected and bottles are labeled, each sample container will be placed into a sealable plastic bag and then placed into an ice-filled cooler to ensure preservation. Remaining soil will be managed as investigation-derived waste (IDW).
6. After soil samples are collected (to preserve sample integrity), the remaining lithologic samples will be fully described. The soils from the soil core will be logged on a soil boring log and soil recovery, soil characteristics, visual or olfactory signs of contamination, and PID screening results will be noted. Soil from each sample will be screened with a PID (with a standard 10.6 eV lamp). In addition, the soil core will be visually inspected for stains or anomalous texture, and PID measurements will be recorded from any stained or anomalous soils. Soil from each sample interval will be placed inside a new, clean plastic bag, sealed, and then mixed with the air in the bag. The bag with soil will be labeled with the sample ID and time and allowed to heat in the sun for approximately 5 minutes. If air temperatures are below 50 degrees F, the sample bag will be allowed to warm inside a building or vehicle for approximately 5 minutes. The PID probe will be inserted or penetrated into the plastic bag and the maximum reading will be recorded on the sample form or boring log, specifying the sample depth. If high sustained PID readings (greater than 100 ppm) are recorded, then additional samples will be collected using Terra Core® samplers and analyzed for VOCs. After the contents of the sampler are measured, sampled, and described, the core will be discarded and handled as IDW as described in **Section 11.11**.
7. All borings will be abandoned by grouting to surface. For deeper borings (those extending into the water table), rigid tremie pipe will be extended to the bottom of the boring and pump grout through the pipe until undiluted grout flows from the boring at ground surface. For shallow borings (those not penetrating the water table), grout will be poured into the boring from the surface until grout flows from the boring at ground surface. Grout will be composed of 20 parts cement (Portland cement, Type II or V), up to one part bentonite, and a maximum of 8 gallons of approved water per 94-pound bag of cement.

11.3.2.3 Terra Core® Sampling Method for Soil

Samples requiring VOC analysis (**Table 4.2**) may be collected using EnNovative Technologies Terra Core® samplers. Terra Core® samplers limit the amount of volatilization that occurs during sampling, which allows for a more accurate and valid analytical result.

1. Prepare a Terra Core sampler, and a 40 milliliter (mL) volatile organic analysis (VOA) vial containing the proper preservative (sodium bisulfate or methanol) and a magnetic stirring bar (if required). Containers required for VOC sampling are shown on **Table 11.1**.
2. Expose fresh soil.
3. With the plunger seated in the handle, push the Terra Core sampler immediately into the freshly exposed soil until the sample chamber is filled. Wipe all soil or debris from

the outside of the Terra Core sampler. The soil plug should be flush with the mouth of the sampler.

4. Rotate the plunger that was seated in the handle to 90° until it is aligned with the slots in the sampler body. Place the mouth of the sampler into the 40mL VOA vial and extrude the sample into the container by pushing the plunger down.
5. Quickly replace the lid of the 40mL VOA vial. When capping the VOA vial, be sure to remove any soil or debris from the top or threads of the vial. Place the collected sample on ice as soon as possible (if required by sample preservation method).

11.3.3 Decontamination Procedures

Equipment used to drill boreholes and collect soil samples during the investigation will be decontaminated within a temporary decontamination pad constructed at the SWMU or AOC. The decontamination pad will be designed so that all decontamination liquids are contained from the surrounding environment and can be recovered for disposal as IDW as described in **Section 11.11**. Drilling equipment will be decontaminated after each borehole is completed. The decontamination procedure for excavation and drilling equipment is as follows:

1. Remove caked soil material from the exterior of the buckets and/or augers and cutting heads using a rod and/or brush.
2. Steam clean the equipment interior and exterior with approved water using a brush where steam cleaning is not sufficient to remove all soil material.
3. Rinse thoroughly with approved potable water.
4. Allow equipment to air dry as long as possible on clean, dry plastic sheeting.
5. Place equipment on clean plastic if it will be used immediately or wrap in plastic to prevent contamination if storage is required.

Non-dedicated sampling equipment will be decontaminated after each use during borehole interval sampling. The procedure for decontamination of sampling equipment will be as follows:

1. Wash with approved water and phosphate-free detergent using brushes required to remove particulate matter and surface films.
2. Rinse thoroughly with approved potable water.
3. If analyzing for metals and expecting high levels of contamination, rinse thoroughly with hydrochloric acid (2% solution) or nitric acid (10% solution).
4. Rinse thoroughly with American Society of Testing and Materials (ASTM) Type I or equivalent deionized (DI)/distilled water with analytical certification.
5. If analyzing for organics and expecting high levels of contamination, rinse thoroughly with solvent-pesticide grade isopropanol, acetone, or methanol, depending on analytes of interest.
6. Rinse thoroughly with ASTM Type I or equivalent DI/distilled water with analytical certification.
7. Allow equipment to air dry as long as possible on clean, dry plastic sheeting.

8. Place equipment on clean plastic if immediate use is anticipated or wrap in aluminum foil to prevent contamination if storage is required.

A final decontamination inspection of any equipment leaving the site at the end of field activities will be conducted to ensure proper decontamination.

11.4 QUALITY CONTROL

In order to attain data of sufficient quality to support project objectives, specific procedures are required to allow evaluation of data quality. The QA/QC procedures and requirements for their evaluation will comply with the RCRA Permit, Attachment 3, Sections 3.1.10 and 3.1.11 (NMED, 2015a) and U.S. Department of Defense (DoD) Quality Systems Manual (QSM), Version 5.4 (U.S. DoD, 2021).

11.4.1 Field and Laboratory Quality Control Samples

Evaluation of field sampling procedures and laboratory equipment accuracy and precision requires the collection and evaluation of field and laboratory QC samples. **Table 11.2** summarizes the planned QC samples for this project. A description of each QC sample type is provided in the following sections.

11.4.1.1 Quality Control Analyses Originated by the Field Team

Field QC samples will be collected to determine the accuracy and precision of the analytical results. The QC sample frequencies are stated in the following sections.

Equipment Blank

Equipment blanks will be collected to monitor the cleanliness of sampling equipment and the effectiveness of decontamination procedures. Contamination from the sampling equipment can bias the analytical results high or lead to false positive results being reported. Equipment blanks will be prepared by filling sample containers with laboratory-grade contaminant free water that has been passed through non-disposable sampling equipment from driller tools and sampler hand tools. The required QC limits for equipment blank concentrations are to be less than the method's reporting limit.

Equipment blanks will be collected at a frequency of 10% per sampling apparatus. Samples associated with equipment blanks that have detected target compounds will be assessed during the data validation process. The usability of the associated analytical data will be documented and affected data will be appropriately qualified. Field corrective action to improve equipment decontamination procedures may also be implemented by the Field Lead at the request of the project chemist.

Field Duplicate

Field duplicates are collected in the field from a single aliquot of the sample to determine the precision and accuracy of the field team's sampling procedures. Field duplicates will be collected and analyzed at a frequency of 10% (i.e., one field duplicate sample will be collected for every ten samples collected) per mobilization. Field duplicates are indicated on **Table 3.2**, **Table 4.2**, **Table 5.3, Table 6.2, Table 7.2, Table 8.2, Table 9.2,** and **Table 10.2.**

Trip Blank

Trip blanks are used to monitor for contamination during sample shipping and handling, and for cross-contamination through volatile component migration among the collected samples. They are prepared in the laboratory by pouring organic-free water into a VOA sample container. They are then sealed, transported to the field, and transported back to the laboratory in the same cooler as the volatile component samples. One trip blank sample set (two VOAs) will accompany each volatile component sample cooler.

11.4.1.2 Quality Control Analyses/Parameters Originated by the Laboratory

Method Blank

Method blanks are used to monitor each preparation or analytical batch for interference and/or contamination from glassware, reagents, and other potential sources within the laboratory. A method blank is a contaminant-free matrix (laboratory reagent water for aqueous samples or Ottawa sand, sodium sulfate, or glass beads [metals] for soil samples) to which all reagents are added in the same amount or proportions as are added to the samples. It is processed through the entire sample preparation and analytical procedures along with the samples in the batch.

There will be at least one method blank per preparation or analytical batch. If a target compound is found at a concentration that exceeds one-half the reporting limit, corrective action must be performed in an attempt to identify and, if possible, eliminate the contamination source. If sufficient sample volume remains in the sample container, samples associated with the blank contamination should be reprocessed and reanalyzed after the contamination source has been eliminated.

Laboratory Control Sample

The laboratory control sample (LCS) will consist of a contaminant-free matrix such as laboratory reagent water for aqueous samples or Ottawa sand, sodium sulfate, or glass beads (metals) for soil samples spiked with known amounts of compounds that come from a source different than that used for calibration standards. Target compounds will be spiked into the LCS. The spike levels will be less than or equal to the midpoint of the calibration range. If LCS results are outside the specified control limits, corrective action must be taken, including sample re-preparation and re-analysis, if appropriate. If more than one LCS is analyzed in a preparation or analytical batch, the results for each LCS must be reported. Any LCS recovery outside QC limits affects the accuracy for the entire batch and requires corrective action.

Matrix Spike/Matrix Spike Duplicate

A sample matrix fortified with known quantities of specific compounds is called a matrix spike (MS). It is subjected to the same preparation and analytical procedures as the native sample. For this project, all target compounds will be spiked into the MS sample. Sample MS recoveries are used to evaluate the effect of the sample matrix on the recovery of the analytes of interest. A matrix spike duplicate (MSD) is a second aliquot of the MS sample, fortified at the same concentration as the MS. The relative percent difference (RPD) between the results of the MS duplicates measures the precision of sample results.

Project-specific samples will be used by the laboratory for the MS/MSD samples, which will be designated on the chain-of-custody (COC) form. The spike levels will be less than or equal to the

midpoint of the calibration range. Pairs of MS/MSDs will be collected at a frequency of 5%. MS/MSDs are required in every analytical batch regardless of the rate of collection and how samples are received at the laboratory.

11.4.2 Data Precision, Accuracy, Representativeness, Comparability and Completeness

Field QA/QC samples and laboratory internal QA/QC samples are collected and analyzed to assess the data's quality and usability. The following sections discuss the parameters that are used to assess the data quality.

Precision

The precision of laboratory analysis will be assessed by comparing the analytical results between MS/MSD and laboratory duplicate samples. The precision of the field sampling procedures will be assessed by reviewing field duplicate sample results. The RPD will be calculated for the duplicate samples using the equation:

$$\%RPD = \{(S - D)/[(S + D)/2]\} \times 100$$

where:

S = first sample value (original value)
D = second sample value (duplicate value)

The precision criteria for the duplicate samples will be plus or minus (±) 50% in soil samples.

Accuracy

Accuracy of laboratory results will be assessed for compliance with the established QC criteria using the analytical results of method blanks, reagent/ preparation blanks, LCS and MS/MSD samples and surrogate results, where applicable. Laboratory accuracy will be assessed for compliance with the established QC criteria listed in Appendix C of the QSM (U.S. DoD, 2021). The percent recovery (%R) of LCSs will be calculated using the equation:

$$\%R = (A/B) \times 100$$

where:

A = the analyte concentration determined experimentally from the LCS

B = the known amount of concentration in the sample

Completeness

The data completeness of laboratory analyses results will be assessed for compliance with the amount of data required for decision making. Complete data are data that are not rejected. Data with qualifiers such as "J" or "UJ" are deemed acceptable and can be used to make project decisions as qualified. Data qualifiers are listed in **Table 11.3**. The completeness of the analytical data is calculated using the equation:

$$\%Completeness = [(complete\ data\ obtained)/(total\ data\ planned)] \times 100$$

The percent completeness goal for this sampling event is 90% for each analytical method.

Representativeness

Representativeness is the degree to which sampling data accurately and precisely represent site

conditions and is dependent on sampling and analytical variability and the variability of environmental media at the site. Representativeness is a qualitative "measure" of data quality.

Achieving representative data in the field starts with a properly designed and executed sampling program that carefully considers the project's overall objectives. Proper location controls and sample handling are critical to obtaining representative samples.

The goal of achieving representative data in the laboratory is measured by assessing accuracy and precision. The laboratory will provide representative data when the analytical systems are in control. Therefore, representativeness is a redundant objective for laboratory systems if sample COC and sample preservation are properly documented, analytical procedures are followed and holding times are met.

Comparability

Comparability is the degree of confidence to which one data set can be compared to another Comparability is a qualitative "measure" of data quality.

Achieving comparable data in the field starts with a properly designed and executed sampling program that carefully considers the project's overall objectives. Proper location controls and sample handling are critical to obtaining comparable samples.

The goal of achieving comparable data in the laboratory is measured by assessing accuracy and precision. The laboratory will provide comparable data when analytical systems are in control. Therefore, comparability is a redundant QC objective for laboratory systems if proper analytical procedures are followed and holding times are met.

Sensitivity

Sensitivity is the ability of the method or instrument to detect the contaminant of concern and other target compounds at the level of interest. Appropriate sampling and analytical methods will be selected that have QC acceptance limits that support the achievement of established performance criteria. Elevated sensitivities due to dilutions caused by matrix interference will be communicated in the case narrative of the laboratory report. If necessary, clean-up methods such as sulfuric acid, florisil cartridge, and copper clean-up for parameters such as pesticides and PCBs will be employed to get rid of interferences.

For this project, the performance criteria are the Human Health Soil Screening Levels (SSLs) and Ecological Screening Levels (ESLs) presented in the NMED Risk Assessment Guidance for Site Investigations and Remediation (NMED, 2017 and 2022). The NMED SSLs and ESLs will be used to evaluate contaminant concentrations in soil samples. For human receptors, if NMED does not have a published SSL, then a USEPA RSL will be used if one is published (USEPA, 2024). Assessment of analytical sensitivity will require thorough data validation. NMED SSLs (or USEPA RSLs), soil to groundwater SSLs, and NMED ESLs are provided in **Table 11.4, Table 11.5**, and **Table 11.6** respectively. A comparison of the NMED SSLs (or USEPA RSLs) and NMED ESLs to laboratory quantitation limits is provided in **Table 11.7**, which includes an evaluation of analytes with limits of quantitation (LOQs) that are greater than lowest NMED SSLs (or USEPA RSLs). There are numerous analytes with LOQs greater than the lowest screening levels; however, as described in **Table 11.8**, the LOQ is met for the direct contact screening levels for all analytes listed except dibenz(a,h)anthracene analyzed via Method SW8270E. In this case, dibenz(a,h)anthracene is a COPC at SWMU 20, and it is recommended that PAHs be analyzed via

Method SW8270E- SIM at SWMU 20. The most current screening levels published by NMED and USEPA, at the time the risk evaluation is conducted, will be used in the risk evaluation.

11.4.3 Data Verification and Data Review Procedures

Personnel involved in data validation will be independent of any data generation effort. The project chemist will be responsible for the oversight of data verification, review, and validation. Data verification and review will be performed when the data packages are received from the laboratory. Verification will be performed on an analytical-batch basis using the summary results of calibration and laboratory QC, as well as those of the associated field samples. There are five stages of review defined in the DoD General Data Validation Guidelines (DoD, 2019):

1. Stage 1: Verification and validation based only on completeness and compliance of sample receipt condition checks.
2. Stage 2A: Verification and validation based on completeness and compliance checks of sample receipt conditions and ONLY sample-related QC results.
3. Stage 2B: Verification and validation based on completeness and compliance checks of sample receipt conditions and BOTH sample-related and instrument-related QC results.
4. Stage 3: Verification and validation based on completeness and compliance checks of sample receipt conditions, both sample-related and instrument-related QC results, AND recalculation checks.
5. Stage 4: Verification and validation based on completeness and compliance checks of sample receipt conditions, both sample-related and instrument-related QC results, recalculation checks, AND the review of actual instrument outputs.

For this project, 100% of the data packages will undergo data verification and data review, 100% to Stage 2B, and 10% to Stage 4 in accordance with DoD General Data Validation Guidelines and DoD published data validation modules. Data validation will be performed by Parsons using automated data review software and/or manual data validation. The laboratory will submit the following data deliverables, a Stage 4 data package in portable document format (PDF) format as described in the DoD General Data Validation Guidelines and an electronic data deliverable (EDD) using the Staged Electronic Data Deliverables (SEDD) format in accordance with the most recently published version (SEDD Specification Document 5.2, Revision 1.1, October 2019).

Stage 2 analytical laboratory reports in a digital format with searchable electronic data tables will be included in the RFI Report.

11.4.4 Data Assessment

Limitations on data usability will be decided by the project team, if appropriate, based on the results of the validation process described earlier. The results of the data validation will be discussed in a separate report so that overall data quality can be verified through the precision, accuracy, representativeness, comparability, and completeness of sample results.

11.5 CHAIN OF CUSTODY

For each sample, COC forms will be completed and will accompany each sample at all times. Data on the COC form will include the sample identification (ID; as described in **Section 11.10**), depth

interval, date sampled, time sampled, project name, project number, and signatures of those in possession of the sample. The COC forms will accompany those samples shipped to the designated laboratory so that sample possession information can be maintained. The field team will retain a separate copy of the COC form at the field office. Additionally, the sample ID, date and time collected, collection location, and analysis requested will be documented in the field logbook as discussed in **Section 11.7**.

11.6 PACKAGING AND SHIPPING PROCEDURES

All samples will be shipped by overnight air freight to the laboratory or hand delivered. Unless otherwise indicated, samples will be treated as environmental samples, shipped in heavy duty coolers, packed in materials to prevent breakage (such as bubble wrap), and preserved with ice in sealed plastic bags. Each shipment will include the appropriate field QC samples (i.e., trip blanks, duplicates, and rinsates).

Corresponding COC forms will be placed in waterproof bags and taped to the inside of the cooler lids. Each cooler shipped from the laboratory containing samples for VOC analyses will contain a trip blank. The trip blank will stay with the cooler until the cooler is returned to the analytical laboratory. All coolers will be taped shut and a custody seal will be placed over the tape to prevent tampering.

11.7 SAMPLE DOCUMENTATION

11.7.1 Field Logbook

All information pertinent to on-site environmental task activities, including field instrument calibration data, will be recorded in field logbooks or on field forms. A typed, formatted blank boring log will be prepared before sampling begins.

All logbooks or field forms will be completed in accordance with instruction defined in Appendix F of the *Requirements for the Preparation of Sampling and Analysis Plans* (USACE, 2001). The logbooks will be bound, and the pages will be consecutively numbered. Field forms, which are a project-specific collection of forms, will be bound by a three-ring binder, comb-binding, or equivalent or contained in electronic format (i.e., field sheet on a tablet computer) and will capture specific field data, similarly to a field logbook. Logbooks and field forms should be produced on waterproof paper when possible. Entries in the logbooks or forms will be made in black waterproof ink and must be clear, objective, and legible. Entries will include, at a minimum, a description of each day's activities, individuals involved in environmental task activities, date and time of drilling or sampling, weather conditions, any problems encountered, significant events, and all field measurements. Dates are recorded in the month/date/year format; time is recorded in the 24-hour military clock format. Changes will be made by striking through the original entry in a manner that does not obliterate the original entry. The person making the change will initial and date the change.

Calibration logs will include instrument name, serial number, calibration data, and date of calibration. Lot numbers, manufacturer name, and expiration dates of standard solutions used for field instrument calibration also will be recorded.

Sufficient information will be recorded in the logbooks to permit reconstruction of all environmental task activities conducted. Information recorded on other project documents (e.g.,

boring logs, well construction diagrams, well development records, electronic records) will not be repeated in the logbooks except in summary form where determined necessary. All field logbooks will be kept in the possession of field personnel responsible for completing the logbooks, or in a secure place when not being used during fieldwork. All electronic forms of data collection will be backed-up a minimum of once per day. All logbooks will have a distinct project ID number and an inventory will be maintained. Upon completion of the field activities, all logbooks will become part of the project evidence file. The title page of each logbook will be labeled with the following information:

- Logbook title;
- Project name;
- Logbook inventory ID number;
- USACE, Albuquerque District/other U.S. Army contract number and project delivery order number;
- Start date for field activities; and
- End date for field activities.

Logbook and field form entries will be a compilation of relevant, factual events as they occur. Entries recorded in logbooks can include, but not be limited to, the following information:

- Name and title of author, date, and times of arrival at and departure from the work site;
- Purpose of the drilling, sampling and/or remedial activity;
- Name and contact information of the field manager;
- Names and responsibilities of field crew members;
- Names and titles of any visitors;
- Weather and site conditions;
- Field observations;
- Sample collection or task accomplishment method;
- Amount of materials used or removed;
- Number and volume of sample(s) collected;
- Sample ID number(s);
- Date and time of sample collection, and name of collector;
- Sampling type and methodology;
- Sample preservation methods;
- Details of the sampling location, including a sketch map illustrating the sampling location;
- Location, description, and log of sampling point photographs;
- References for all maps and photographs of the sampling site(s);
- Information regarding drilling decisions not recorded on the boring log;

Types of field instruments used and the purpose of use, including calibration methods and results;

Any field measurements made (e.g., pH, conductivity, and static water level);

Sample documentation information, including

- COC record numbers; and
- Number of shipping containers packaged (including contained chain-of-custody records) and the shipping method employed (noting applicable tracking numbers).

Sample distribution and transportation (e.g., name and address of the laboratory and courier);

Name and address of the U.S. Army QA laboratory for the project and the associated project Laboratory Information Management System number, where applicable;

Information from containers, labels of reagents used, DI and organic-free water used;

Decontamination procedures;

Type, matrix, and containerization method for IDW generated;

IDW documentation information, including:

- Types of containers/drums;
- Contents, type, and approximate volume of waste;
- Type of contamination and predicted level of contamination based on available information (i.e., generator knowledge);
- Weekly visual inspection information.

Summary of daily task (including costs where appropriate) and documentation on any cost or scope or work changes required by field conditions;

Information regarding sampling changes, scheduling modifications, and change orders;

Information regarding access agreements, if applicable;

Signature and date of personnel responsible for recorded observations; and

Signature and date of personnel responsible for verifying the QC review of the logbook and/or field form, including but not limited to, accuracy, completeness, legibility, consistency, and clarity.

Copies of the field logbooks will be included in the final report.

11.7.2 Photographs

Representative photographs will be taken of the investigative activities, soil borings, and any significant observations made during the field effort, and will be included in the RFI report.

11.7.3 Boring Logs

Each borehole log generated during the RFI will fully describe the subsurface environment and the procedures used to gain that description. Guidance on field logging of soil and rock may be

found in ASTM D5434-09, Standard Guide for Field Logging of Subsurface Explorations of Soil and Rock (ASTM, 2009). Original borehole logs will be of sufficient legibility and contrast so as to provide comparable quality in reproduction and will be recorded directly in the field without transcribing from a field book or other document.

All borehole logs generated during the RFI will contain the following:

- Unique borehole/monitoring well number and location denoted on a sketch map as part of the log.
- Depths recorded in feet and decimal fractions thereof (tenths of feet).
- Field estimates of soil classification (Unified Soil Classification System) in accordance with ASTM D2488-17e1, Standard Practice for Description and Identification of Soils (Visual Manual Procedure) (ASTM, 2017) prepared in the field at the time of sampling by the site geologist.
- Full description of each soil sample collected.
- Visual numeric estimates of secondary soil constituents and quantitative definitions of description terms (e.g., trace, little, some) recorded on the log.
- Full description, to the greatest extent practical, of bedrock material encountered.
- Description of disturbed samples (if used to supplement subsurface description) in terms of the appropriate soil/rock parameter, to the extent practical. At a minimum, classification along with a description of drill action for the corresponding depth will be recorded. Notations will be made on the log that these descriptions are based on observations of disturbed material rather than intact samples.
- Description of drilling equipment, including such information as auger size (inner and outer diameter), bit types, compressor type, rig manufacturer, and model.
- Sequence of drilling activities.
- Any special problems encountered during drilling and their resolution.
- Dates and times for the start and completion of the borehole along with notation by depth for drill crew shifts and individual days.
- Each sequential boundary between various soil types and individual lithologies.
- For a rock core, a scaled graphic sketch of the core should be provided on or with the log denoted by depth location, orientation, and nature (natural or coring-induced) of all core breaks. If fractures are too numerous to be individually shown, their location may be drawn as a zone and described on the log.
- Intervals of lost core.
- The depth of first encountered free water along with the method of determination and any subsequent distinct water level(s) encountered thereafter. Before proceeding, the first encountered water will be allowed to partially stabilize (from 5 to 10 minutes) and recorded along with the time between measurements.
- Interval by depth for each sample collected, including the length of sampled interval, length of sample recovery, blow counts, and the sampler type and size (diameter and length).

Total depth of drilling and sampling.

Results of soil core organic vapor scan readings and soil sample organic vapor headspace readings. Notation will include interval sampled, corresponding vapor readings, and key to the specific instrument used to obtain readings. A general note will be made on the log indicating the manufacturer, model, serial number, and calibration information for each instrument used.

Definition of any special abbreviations used at the first occurrence of their usage.

11.8 FIELD INSTRUMENT CALIBRATION

All field instruments will be calibrated following manufacturer recommended calibration procedures and frequencies. Field instruments may include, but are not limited to, air quality meters such as PIDs and multi-gas meters. Field instrument calibrations will be recorded in a designated portion of the field logbook at the time of the calibration. Adverse trends in instrument calibration behavior will be corrected.

11.9 SURVEY OF SAMPLE LOCATIONS

The location of each sample collected will be surveyed using appropriate instrumentation and procedures to obtain horizontal accuracy of less than 0.1 foot. A Trimble Total Station Global Positioning System (GPS), Trimble Static GPS, or equivalent, will be utilized to document each soil sample location. A North American Datum 1983 Northing and Easting in U.S. Survey Feet will be established for all surveyed points and recorded in a dedicated field notebook. Survey data will be supplied in the Final Report in New Mexico State Plane and Universal Transverse Mercator Index coordinates.

11.10 SAMPLE IDENTIFICATION

During sampling, unique sample ID numbers will be assigned to each sample or subsample. Each sample ID number will consist of a combination of the Parcel number, SWMU/AOC number, additional site identifier, source of sample, increment or boring number, type of sample, and depth of sample collection in accordance with the latest version of the FWDA *Environmental Information Management Plan* (USACE, 2009). Following is an example sample number and a description of the sample identifiers to be used during implementation of this Supplemental RFI Work Plan.

Example Sample ID: 0608B537-SB14-0.0-1.0D-SO

Parcel: 6

SWMU or AOC: in this case SWMU 8

Additional Site Identifier: in this case B537 (Building 537)

Source of Sample: in this case SB (soil boring)

Increment Number: Samples collected within each SWMU/AOC will be assigned sequential 2-digit or 3-digit numbers (in this case 14)

Depth Range: In feet (in this case 0.0 to 1.0 foot)

Type of Sample: D (discrete)

Matrix: SO (Soil)

QA/QC samples will carry the same sample nomenclature as the parent sample with a unique suffix and numeral (if required) to distinguish individual samples. Field duplicate samples will be submitted blind to the lab and will have a different sample ID than the parent. Equipment rinsate blanks, trip blanks, and field blanks will carry the sample location identifier with an additional designation of TBXX or EBXX (where XX represents the sequence number of the sample). Each blank will have a unique tracking number.

11.11 INVESTIGATION-DERIVED WASTE

Three types of IDW may be generated during the sampling of environmental media during the Parcel 6 Supplemental RFI activities: residual soil volume, decontamination fluids, and disposable sampling equipment/PPE. Proper management of this IDW is required to ensure compliance with federal, state, and Army regulations applicable to the collection, storage, transport, and disposal of potentially hazardous materials. Required IDW management measures for FWDA investigations or remedial activities will be waste segregation, containerization and labeling, temporary storage, waste characterization, and disposal. Decontamination fluids will be transported and disposed of at the evaporation tank.

12.0 EVALUATION OF HUMAN HEALTH AND ECOLOGICAL RISKS

This Supplemental RFI will build on the data previously collected in Parcel 6 in support of an RFI. The data collected during this Supplemental RFI will fill data gaps identified during review of the initial RFI and PIIM data, as well as provide data to support risk assessment. The evaluation of data to be conducted during the RFI will include initial RFI data, PIIM data, and data collected in support of this Supplemental RFI. Per NMED Comment 9 (NMED, 2019), the evaluation of data will only include data collected after the March 30, 2011, NMED-approved Work Plan (USACE, 2011).

All activities conducted as part of this Supplemental RFI Work Plan will be documented in a RFI Report. The report will contain, at a minimum, a detailed schedule of completed activities, a "Deviations" section that details any deviations from the approved work plan and includes justification for said deviations, a summary of analytical data, and an evaluation of data comparing results to the appropriate screening levels, including an evaluation of cumulative risk. The approach to be used in the cumulative risk evaluation is described in the following sections and is based on the requirements contained in the NMED Risk Assessment Guidance for Site Investigations and Remediation (NMED, 2017 and 2022).

12.1 HUMAN HEALTH RISK ASSESSMENT

The general steps for conducting the human health screening risk assessment per Section 1.3 of the *NMED Risk Assessment Guidance for Site Investigations and Remediation, Volume I, Soil Screening Guidance for Human Health Risk Assessments* (NMED, 2022) are as follows:

Step 1: Determine COPCs (further discussed in **Section 12.1.5.1**). This includes conducting a site attribution analysis and elimination of some constituents through comparison of site concentrations to background levels (**Section 12.1.5.2**).

Step 2: Compare maximum detected site concentrations for COPCs to the direct contact SSLs (NMED, 2022 or the most current published values at the time the data are evaluated) for applicable receptors (**Table 11.4**). Current and future receptors include residents, industrial/commercial workers, and construction workers as shown on **Figure 3.4** for SWMU 8**, Figure 4.2** for SWMU 11**, Figure 5.4** for SWMU 20, **Figure 6.2** for AOC 42, **Figure 7.2** for AOC 80, **Figure 8.2** for AOC 81, **Figure 9.2** for AOC 83, and **Figure 10.2** for AOC 84. If a chemical presents both carcinogenic and noncarcinogenic health toxicity, then compare to both screening levels, if available.

> If the resulting Hazard Index (HI) (sum of all hazard quotients, HQs) is less than 1.0, stop; no additional assessment for noncarcinogens is needed. Move to Step 5.
>
> If resulting cancer risk (sum of all cancer risks) is less than 1E-05, stop; no additional assessment for carcinogens is required. Move to Step 5.

Risks/hazards across all applicable pathways will be included in the comparison to NMED target levels of 1E-05 and 1.0 (**Section 12.1.5.3**). If a quantitative evaluation of VI is necessary, any risk/hazard from vapor intrusion (VI) or other site-specific pathway will be added to the summed

risk/hazard calculated using the SSLs (**Section 12.1.5.3**). The beef ingestion pathway will be addressed in the Uncertainty Section of the RFI Report.

Step 3: If Step 2 results in adverse risk/hazard, calculate refined exposure point concentrations (EPCs) (**Section 12.1.5.3**).

Step 4: Compare EPCs to the applicable SSLs for each receptor (**Section 12.1.5.3**):

If the resulting HI is less than 1.0, stop; no additional assessment for noncarcinogens is needed. Move to Step 5.

If resulting cancer risk is less than 1E-05, stop; no additional assessment for carcinogens is required. Move to Step 5.

Step 5: Compare the site concentrations to the soil-to-groundwater target soil leachate concentrations (based on a dilution attenuation factor [DAF] of 20). Maximum detected concentrations should be applied first, followed by use of a refined EPC and/or site-specific data, if the initial comparison results in an exceedance of the applicable soil-to-groundwater target soil leachate concentrations (**Section 12.1.5.4**).

Step 6: Discuss Uncertainties (**Section 12.1.5.5**).

Step 7: If Step 4 and/or Step 5 results in excess risk/hazard or potential to impact groundwater, conduct additional site-specific refinements of the assessment and/or implement corrective actions (**Section 12.1.5.6**).

These steps are further discussed in **Section 12.1.5**.

An evaluation of potential human health risks will be conducted for the SWMUs and AOCs within Parcel 6, as described in this section. The SWMUs and AOCs to be evaluated are listed below:

SWMU 8: Building 537 – Pesticide and Field Battery Shop,

SWMU 11: Building 541 – Heating Plant No. 11 and Building 542 – Ammunition Workshop,

SWMU 20: Western Landfill – Feature 4,

AOC 42: Building 516 – Ammunition Receiving Building,

AOC 80: Feature 9,

AOC 81: Feature 11,

AOC 83: Feature 22, and

AOC 84: Feature 12.

The data to be used in the evaluation will include the results from this Supplemental RFI, as well as the results from the initial RFI and PIIM. Per NMED Comment 63 (NMED, 2019), concentrations of ISM samples will not be directly compared to NMED SSLs, therefore, only discrete samples will be directly compared to NMED SSLs.

Evaluation of ecological risks is presented in **Section 12.2**.

12.1.1 Define NMED Target Risk Thresholds

The NMED risk guidance for human health (NMED, 2022; Section 1.2.3 and Section 5) identifies two target risk thresholds that are used to evaluate if cancer risks and noncancer hazards are acceptable. According to NMED, adverse health impacts are unlikely when the cancer risk is less than $1x10^{-5}$ for carcinogenic analytes, and when the HI is less than 1.0 for noncarcinogenic analytes. These are the target risk thresholds that will be used in the human health risk evaluation for Parcel 6.

12.1.2 Selection of Screening Levels

Soil is the only medium that will be evaluated for Parcel 6, through use of screening levels selected to reflect the requirements of the Permit (NMED, 2015a; Attachment 7, Section 7.2) and the NMED risk guidance (NMED, 2022). Current human health SSLs are in **Tables 11.4 and 11.5**, SSLs used in the risk assessment will be the most current published values when the data are evaluated. The hierarchy of SSLs is provided below:

1. Screening levels published by NMED in Appendix A of the NMED risk guidance (NMED, 2022) were selected as the screening levels as described further below:
    a. Direct contact pathway – SSLs for residential receptors, commercial/industrial workers, and construction workers will be considered in the human health risk evaluation, with the exception of arsenic in soil where NMED is allowing use of the site-specific background level of 5.6 mg/kg in lieu of the NMED screening level. Additional discussion about arsenic and background levels for other metals is provided in **Section 12.1.5.2**. The NMED SSLs for residents assume contaminant intake occurs via three exposure pathways – direct ingestion, dermal absorption, and inhalation of volatiles and fugitive dusts (NMED, 2022). The NMED SSLs for commercial/industrial workers and construction workers assume contaminant intake occurs via three exposure pathways – incidental soil ingestion, dermal contact with soil, and inhalation of contaminated outdoor air (volatiles and particulate emissions; NMED, 2022). Both carcinogenic and noncarcinogenic endpoints are evaluated for those analytes exhibiting both types of effect.
    b. Soil leaching to groundwater pathway – NMED publishes up to four SSLs for each analyte. Two of the four SSLs are based on risk-based values to which DAFs of 1 and 20 have been applied. The remaining two SSLs are based on drinking water standards to which DAFs of 1 and 20 have been applied. Use of the SSLs is allowed by NMED based on a DAF of 20 as reasonably protective (NMED, 2022; Section 4.4), and allows use of the least conservative SSL between the risk-based and drinking water-based SSLs (NMED, 2022; Section 4.9).
2. For analytes without an NMED SSL, RSLs published by USEPA for residential and industrial receptors for soil are selected (USEPA, 2024). The USEPA RSLs are generally updated twice annually and the most current published values when the data are evaluated will be selected. The USEPA RSLs are based on a noncancer endpoint corresponding to the NMED target HQ of 1.0 for noncarcinogenic analytes. The USEPA RSLs based on a cancer endpoint have been adjusted to a cancer risk of $1x10^{-5}$ for consistency with the NMED target risk threshold of $1x10^{-5}$(NMED, 2022; Section 1.2). The USEPA risk-based

SSLs for the protection of groundwater will be adjusted to a DAF of 20 for consistency with the NMED presumption that this DAF is reasonably protective.

Analytes without screening levels published by NMED or USEPA will be evaluated using surrogate analytes that are structurally similar or that provide a conservative estimate of toxicity. Surrogate analytes are identified in **Tables 11.4 through 11.8**. The uncertainty introduced by use of surrogate analytes in the risk evaluation, or the lack of appropriate surrogate for quantitative evaluation, will be addressed in the uncertainty discussion, where applicable. **Table 11.8** includes an evaluation of analytes with LOQs that are greater than NMED SSLs (or USEPA RSLs).

12.1.3 Preliminary Exposure Pathway Evaluation

The NMED risk guidance (NMED, 2022) requires the evaluation of four types of exposure to COPCs in soil: 1) direct contact, 2) ingestion of beef that has bioaccumulated COPCs through grazing, 3) inhalation of volatile COPCs that have migrated from the soil to indoor air, and 4) exposure to COPCs in soil that migrate to groundwater that is subsequently used as a potable water source. The NMED risk guidance (NMED, 2022) also requires evaluation of exposure to COPCs in tap water from domestic use. The exposure pathways are discussed in the following sections.

12.1.3.1 Direct Contact

The NMED risk guidance (NMED, 2022) identifies three receptor types that may potentially be exposed through direct contact with soil: 1) residential receptors, 2) commercial/industrial workers, and 3) construction workers. These three receptors could be exposed to site-related COPCs in soil via dermal contact, incidental ingestion, and inhalation of dust/volatiles in ambient air. All three receptors will be evaluated.

12.1.3.2 Beef Ingestion

The beef ingestion pathway will be addressed in a qualitative assessment in the Uncertainties Section of the risk assessment in the RFI Report. Lines of evidence to characterize potential risks may include the following (NMED, 2022):

Percent of acreage impacted by site contamination is less than two acres in size resulting in only a fraction of the cow's diet (grass only, forage, silage, grain) being potentially contaminated;

Levels of contamination are below residential screening levels;

No significant ecological risks for the larger game receptors; and

Beef ingestion rates (or percentage of beef in diets) for the potential receptors for the region/area.

SWMU 8 is approximately 0.03 acre, SWMU 11 is approximately 0.2 acre, AOC 42 is approximately 0.03 acre, and AOC 81 is approximately 0.47 acre. As such, there is not sufficient acreage to support cattle grazing. Therefore, the beef consumption pathway is incomplete for SWMU 8, SWMU 11, AOC 42, and AOC 81. SWMU 20 is approximately 3.83 acres, AOC 80 is approximately 16.9 acres, AOC 83 is approximately 3.35 acres, and AOC 84 is approximately 14.21 acres. Therefore, the beef consumption pathway is potentially complete for SWMU 20, AOC 80, AOC 83, and AOC 84. A qualitative evaluation for the beef ingestion pathway will be included

in the Uncertainty section of the RFI Report for SWMU 20, AOC 80, AOC 83 and AOC 84 because they are greater than 2 acres.

12.1.3.3 Vapor Intrusion

The NMED risk guidance for human health (NMED, 2022) requires an evaluation of VI from subsurface media to indoor air when volatile analytes are detected. As defined by NMED, volatile analytes are those having a molecular weight of 200 grams per mole (g/mol) or less, having a Henry's law constant exceeding $1x10^{-5}$ atmospheres – cubic meter per mole, and that are identified as toxic through the inhalation pathway. At SWMUs or AOCs where volatile analytes are detected, the VI pathway will be considered potentially complete, and will be evaluated. The NMED risk guidance (NMED, 2022) requires that the VI pathway be identified with one of the following designations:

1. Incomplete pathway and no action required,
2. Potentially complete pathway and a qualitative evaluation required, or
3. Complete pathway and quantitative evaluation required.

The VI pathway evaluation will assess the potential for health risk from exposure to COPCs and soil from inhalation inside buildings.

The VI screening levels are not published by NMED for bulk soil because NMED follows USEPA VI guidance, which does not support reliance on bulk soil as an effective means of quantifying potential risks through the VI pathway. Therefore, the evaluation of volatile analytes in soil will be qualitative and rely on a lines-of-evidence discussion to characterize the potential for health risks. The qualitative discussion will present lines of evidence consistent with Section 2.5.2.2 of the NMED risk guidance (NMED, 2022) as listed below:

1. Number and magnitude of detections of volatile compounds;
2. If there is a suspected source of volatile compounds within the SWMU/AOC;
3. Decreasing concentration trends;
4. No evidence of sinking or dense vapors; and
5. If a removal action has, or could, mitigate the presence of VOCs in soil.

The VI pathway is potentially complete for future hypothetical residents and industrial/commercial workers. The VI pathway will be evaluated qualitatively (as listed above) if VOCs are detected in soil.

If sufficient lines of evidence are developed to support that volatile analytes in soil are unlikely to pose health risks through the VI pathway, then no further evaluation or mitigation of the VI pathway will occur. If there are not sufficient lines of evidence to rule out health risks through the VI pathway, then additional evaluation of the VI pathway through a site-specific assessment, potentially including sampling of soil-gas, or additional evaluation and/or sampling of groundwater may be recommended in the conclusions of the RFI Report.

12.1.3.4 Soil to Groundwater

The NMED risk guidance (NMED, 2022) requires that the potential for COPCs in shallow soil to

leach to groundwater that may be present in alluvial or bedrock aquifers be evaluated if this exposure pathway is potentially complete for a site. Groundwater is known to be present below portions of Parcel 6. The groundwater exposure pathway is incomplete for current receptors. The groundwater exposure pathway is potentially complete for future hypothetical residents. Groundwater is assumed to be used as drinking water until it can be demonstrated that an alternate source of drinking water is readily available to replace groundwater as the primary drinking water source.

12.1.4 Preliminary Conceptual Site Model

Site investigations are conducted within the context of a CSM. The purpose of the CSM is to describe complete or potentially complete exposure pathways through which receptors may be exposed to site-related contamination. The NMED risk guidance (NMED, 2022) identifies five elements that must be present for an exposure pathway to be complete: 1) source, 2) mechanism of contaminant release, 3) a receiving or contact medium, 4) a potential receptor, and 5) a route of exposure. If any one of these five elements is missing, then the exposure pathway is incomplete. Based on the summary of RFI investigation results described in previous sections (**Sections 3.0 through 10.0**), potential receptors accessing the site could potentially be exposed to chemicals released from historical activities conducted at FWDA and remaining in the surface and subsurface.

The CSM describes the COPC origin, fate, transport, exposure pathways, and receptors of concern. The CSM provides a clear and concise description of how receptors may come into contact with Facility-related COPCs via release mechanisms and exposure to environmental media. The CSM provides the framework for the risk assessment and will be used to identify appropriate exposure pathways and receptors for evaluation.

The primary sources of potential contaminants at Parcel 6 are related to the historical use of FWDA and include the Battery Shop (Building 537) associated with SWMU 8, former ammunition packing, shipping, and receiving at Building 542 and the Heating Plant at Building 541 associated with SWMU 11, the Western Landfill associated with SWMU 20, ammunition storage at AOC 42, the magazine storage area associated with AOC 80, the open storage area/standard ammunition magazine associated with AOC 81, the open area/standard ammunition magazine associated with AOC 83, and the temporary open storage area near AOC 84. Primary release mechanisms include direct discharge and leaks, drips, and spills.

Secondary sources of potential contaminants are surface soils and/or subsurface soils. Transport mechanisms may include wind erosion from contaminated surface soils, leaching and infiltration to subsurface soil, volatilization of contaminants in surface soil to air, infiltration and leaching to groundwater, and stormwater runoff and erosion of surface soil to surface water and sediment. Groundwater elevations vary at SWMUs/AOCs across Parcel 6 and range from 37.03 to 64.32 feet below the surface (Eco & Associates, 2023 [see Table 4-1]). Groundwater does not discharge to surface water. There are no year-round surface water bodies. Therefore, the groundwater and surface water/sediment exposure pathways are incomplete.

There is potential for receptors to be exposed to contamination remaining from historical activities conducted at FWDA. The potential for exposure varies across Parcel 6 because it contains a mix of developed and open spaces that will support different types of land use. Current land use is as an out-of-use military installation undergoing remediation where the receptors could include

commercial/ industrial workers and construction workers. The properties are anticipated to be transferred to other entities and therefore future use by residential, commercial/industrial workers, and construction workers is possible. However, the Permit (NMED, 2015a; Attachment 7) requires that future residential land use be evaluated to support unrestricted future land use by the Army or other future owner, which includes both adult and child receptors.

The primary media of concern being addressed by this Supplemental RFI Work Plan are surface and subsurface soils, and thus the cumulative risk evaluation will quantitatively address potential exposures through direct contact (including dermal contact, incidental ingestion, and inhalation of dust or particulates) and the soil leaching to groundwater pathways at each SWMU and AOC. There also is the potential for indirect exposure through the VI and beef ingestion pathways. These indirect exposures will be evaluated at those SWMUS or AOCs where the exposure pathway analysis conducted at the time of the risk evaluation demonstrates they are complete.

Site-specific preliminary CSMs were developed to illustrate potentially complete exposure pathways identified in the exposure pathway analysis (see previous paragraphs) for the SWMUs and AOCs currently being investigated. A brief description of the preliminary CSMs is presented below:

Figure 3.4 – SWMU 8 is a relatively small site (0.03 acre). Current human receptors include commercial/industrial workers. SWMU 8 has the potential to support future residential use, commercial/industrial use, and construction workers. The beef ingestion pathway is considered incomplete because it is less than two acres in size. Residential land use will be evaluated for this property to comply with the Permit requirements and to support unrestricted future land use by the Army or other future owner.

Figure 4.2 – SWMU 11 is a relatively small site (0.2 acre). Current human receptors include commercial/industrial workers. SWMU 11 has the potential to support future residential use, commercial/industrial use, and construction workers. The beef ingestion pathway is considered incomplete because it is less than two acres in size. Residential land use will be evaluated for this property to comply with the Permit requirements and to support unrestricted future land use by the Army or other future owner.

Figure 5.4 – SWMU 20 is a larger site (3.83 acres). Current human receptors include commercial/industrial workers. SWMU 20 has the potential to support future residential use, commercial/industrial use, and construction workers. SWMU 20 is large enough to potentially support cattle grazing. The beef ingestion pathway is considered potentially complete because SWMU 20 is greater than two acres in size and will be evaluated qualitatively as described in Section 12.1.3.2. There are mostly vacant spaces that could support a wide range of future uses, including residential development and cattle grazing. Residential land use will be evaluated for this property to comply with the Permit requirements and to support unrestricted future land use by the Army or other future owner.

Figure 6.2 – AOC 42 is a relatively small site (0.03 acre). Current human receptors include commercial/industrial workers. AOC 42 has the potential to support future residential use, commercial/industrial use, and construction workers. The beef ingestion pathway is considered incomplete because it is less than two acres in size. Residential land use will be evaluated for this property to comply with the Permit requirements and to support unrestricted future land use by the Army or other future owner.

Figure 7.2 – AOC 80 is a larger site (16.9 acres). Current human receptors include

commercial/industrial workers. AOC 80 has the potential to support future residential use, commercial/industrial use, and construction workers. AOC 80 is large enough to potentially support cattle grazing. The beef ingestion pathway is considered potentially complete because AOC 80 is greater than two acres in size and will be evaluated qualitatively as described in Section 12.1.3.2. There are mostly vacant spaces that could support a wide range of future uses, including residential development and cattle grazing. Residential land use will be evaluated for this property to comply with the Permit requirements and to support unrestricted future land use by the Army or other future owner.

Figure 8.2 – AOC 81 is a relatively small site (0.47 acre). Current human receptors include commercial/industrial workers. AOC 81 has the potential to support future residential use, commercial/industrial use, and construction workers. The beef ingestion pathway is considered incomplete because it is less than two acres in size. Residential land use will be evaluated for this property to comply with the Permit requirements and to support unrestricted future land use by the Army or other future owner.

Figure 9.2 – AOC 83 is a larger site (3.35 acres). Current human receptors include commercial/industrial use, and construction workers. AOC 83 is large enough to potentially support cattle grazing. The beef ingestion pathway is considered potentially complete because AOC 83 is greater than two acres in size and will be evaluated qualitatively as described in Section 12.1.3.2. There are mostly vacant spaces that could support a wide range of future uses, including residential development and cattle grazing. Residential land use will be evaluated for this property to comply with the Permit requirements and to support unrestricted future land use by the Army or other future owner.

Figure 10.2 – AOC 84 is a larger site (14.2 acres). Current human receptors include commercial/industrial workers. AOC 84 has the potential to support future residential use, commercial/industrial use, and construction workers. AOC 84 is large enough to potentially support cattle grazing. The beef ingestion pathway is considered potentially complete because AOC 84 is greater than two acres in size and will be evaluated qualitatively as described in Section 12.1.3.2. There are mostly vacant spaces that could support a wide range of future uses, including residential development and cattle grazing. Residential land use will be evaluated for this property to comply with the Permit requirements and to support unrestricted future land use by the Army or other future owner.

Groundwater is assumed to be used as hypothetical future residential drinking water for all sites until it can be demonstrated that an alternate source of drinking water is readily available to replace groundwater as the primary drinking water source. The evaluation of groundwater will be based on the target soil leachate concentrations, which are equivalent to the NMED-specific tap water SSLs multiplied by a DAF of 20. Soil results will be compared to the target soil leachate concentrations to determine if additional investigation including additional sampling is necessary to evaluate potential leaching and migration of contaminants to groundwater.

12.1.5 Approach for Evaluating Human Health Risks

The potential for unacceptable health risks from exposure to remaining FWDA-related contamination will be evaluated for potentially complete pathways as defined by the exposure pathway analysis and CSM for each AOC or SWMU, as detailed in Section 12.1.4. The steps of the human health risk assessment are presented below.

12.1.5.1 Identification of Chemicals of Potential Concern (Step 1, Part 1)

Analytes detected in one or more samples from the data set for each SWMU or AOC will be identified as preliminary COPCs. The data set used will include initial RFI data, PIIM data, and data collected in support of this Supplemental RFI.

12.1.5.2 Evaluation of Metals Background Levels (Step 1, Part 2)

As allowed by NMED risk guidance (NMED, 2022; Section 2.8.3.2), the risk evaluation process may incorporate a comparison to background concentrations before evaluating cumulative risks. This is consistent with Attachment 7 (Section 7.6) of the Permit (NMED, 2015a), which indicates that the screening level for naturally occurring (i.e., background) constituents can be set at the background level if a background level is approved by NMED. This section provides a summary of the background studies completed at the site, and the evaluation to be performed to determine if metals should be retained as COPCs.

Summary of Metals Background Studies

At FWDA, site-specific background concentrations for metals in soil were established through the completion of a background study conducted in 2009 and documented in a report titled Soil Background Study and Data Evaluation Report (Shaw Environmental, 2010). The study included collection of 124 samples from areas of FWDA in Parcels 1, 2, 5A, 8, 14, 15, 17, 19, and 20 believed to be unimpacted by historical operations. The background value selected for each metal in soil included in the study is provided in Table 8.1 of the Shaw Environmental (2010) report. A supplemental background study was conducted in 2012 and documented in a report titled *Final Phase 2 Soil Background Report* (USACE, 2013). The purpose of the supplemental investigation was to refine the background levels for arsenic and antimony. The study resulted in a revised background value of 0.23 mg/kg for antimony, which is the 95% upper tolerance limit (UTL) from soil unit 350ss, as presented in Table 4.1 of the *Final Phase 2 Soil Background Report* (USACE, 2013), but arsenic concentrations at investigation areas without known arsenic sources still continued to exceed the background level. NMED approved the Final Phase 2 Soil Background Report on July 23, 2013.

In 2013, NMED issued a letter titled The Evaluation of Background Levels for Arsenic in Soil (NMED, 2013). This letter provides a summary of the background evaluations and provides a refined arsenic background value and guidance on how to use that value to assess investigation results. Specifically, the NMED letter states that if the maximum arsenic concentration is less than 5.6 mg/kg, then arsenic may be considered representative of background and no further action for arsenic is required. If the maximum arsenic concentration is greater than 5.6 mg/kg, then the range of arsenic concentrations in the sample data set is to be compared to the range of arsenic concentrations in the site-specific background data set (0.2 mg/kg to 11.2 mg/kg). If the range of arsenic concentrations in the sample data set is consistent with the range of concentrations in the site-specific background data set, then the arsenic concentrations can be considered representative of background and no further action for arsenic is required. If the range of arsenic concentrations in the sample dataset are not consistent with the range of concentrations in the background data set, then additional investigation or corrective action may be required.

The background values for soil that will be used to evaluate sample results are presented in **Table 11.4.**

Evaluate the Maximum Concentration

The NMED risk guidance (NMED, 2022; Section 2.8.3.2) indicates that metals can be eliminated from further consideration when the maximum detected concentration is less than or equal to its background level. The background levels for metals in soil described above will be used in the evaluation. In the case of arsenic, the range of arsenic concentrations may also be considered in the background evaluation. Metals detected in soil at concentrations less than or equal to background levels will not be retained as COPCs and will not be evaluated further. Metals detected in soil at concentrations greater than background levels or that are considered essential nutrients will be further evaluated.

Conduct Statistical Evaluation of Metals

Metals with maximum concentrations greater than background levels and the essential nutrient SSLs from discrete samples may undergo additional evaluation. The additional evaluation may include a more robust statistical evaluation as described in Section 2.8.3.2 of the NMED risk guidance (NMED, 2022) using ProUCL statistical software (most current version). The more robust statistical evaluation, if performed, includes conducting a two-sample hypothesis test for data sets consisting of at least eight samples and at least five detections, conducting a point-by-point comparison to background levels for data sets that are smaller, and preparing graphical displays to provide further rationale to determine if metals concentrations are consistent with background levels or elevated above background levels (NMED, 2022).

Metals determined to be consistent with background levels will not be retained as COPCs and are not evaluated further. Metals determined to be elevated above background levels will be retained as COPCs and further evaluated through a lines-of-evidence discussion.

Present Additional Lines of Evidence

NMED allows for a lines-of-evidence discussion to be developed to support exclusion of one or more metals as representative of background rather than being site-related, as long as there are sufficient data to define the nature and extent of areas of elevated concentrations. The lines of evidence could include information regarding site history and historical operations, an assessment of the number of detections versus non-detects, or an assessment of whether or not the distribution of results for one or more metals is indicative of a release or source area. Metals for which sufficient lines of evidence demonstrate they are not site-related or not significantly elevated above the background level will not be retained as COPCs and will not be evaluated further. Metals without sufficient lines of evidence to eliminate them as COPCs will be carried forward to the cumulative risk evaluation.

12.1.5.3 Cumulative Risk Evaluation (Steps 2, 3, and 4)

The cumulative risk evaluation assesses if there are potential health risks from simultaneous exposure to multiple analytes. The cumulative risk evaluation incorporates the results of the metals background evaluation and proceeds to evaluate potential health risks based on the maximum detected concentrations of each analyte. Both carcinogenic and noncarcinogenic endpoints are evaluated for those analytes exhibiting both types of effect. Subsequent refinements may be incorporated into the cumulative risk evaluation if an unacceptable cancer risk or noncancer hazard is identified in the initial cumulative risk evaluation. The cumulative risk evaluation to evaluate potential health risks, is described below.

Initial Cumulative Risk Evaluation (Step 2)

The initial cumulative risk evaluation provides an assessment of potential health risks from exposure to COPCs in soil for the worst-case exposure. The maximum detected concentration in the sample data set for each COPC is used to evaluate the complete exposure pathways identified by the exposure pathway analysis and CSM. Cumulative cancer risks and noncancer hazards will be calculated for soil using the following steps:

Select the maximum concentration for each detected COPC. Exclude compounds not detected in any sample for that AOC or SWMU. Also exclude metals determined to be present at background levels and essential nutrients found at concentrations below screening levels based on dietary intake.

Divide the maximum concentration by the screening level to calculate a risk ratio. Multiply the ratio for carcinogenic analytes by $1x10^{-5}$. Multiply the ratio for noncarcinogenic analytes by 1.0.

Sum the risk ratios for carcinogenic analytes to calculate the cumulative cancer risk. Sum the risk ratios for noncarcinogenic analytes to calculate the HI.

Toxicity equivalency factors (TEF) (see Table 2-1, NMED, 2022) should be applied by multiplying the dioxins/furans analyte concentration by their respective TEF. The adjusted concentrations are then summed resulting in the toxicity equivalent (TEQ). The TEQ should be compared to the NMED SSL (NMED, 2022) for 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD).

Evaluation for lead is conducted separately through comparison to the USEPA screening level (USEPA, 2025) because its health effects are not correlated with the typical carcinogenic or noncarcinogenic dose-based toxicity values that characterize other chemicals. Instead, the screening level for lead is based on a modeled concentration in soil that results in an acceptable blood lead level protective of adverse developmental health effects, or that is the action level identified by USEPA for groundwater.

Evaluation of essential nutrients may be conducted separately from the cumulative risk evaluation, per Section 5.3 of the NMED risk guidance (NMED, 2022). The metals and other inorganics classified as essential nutrients are calcium, chloride, magnesium, phosphorous, potassium, and sodium. The SSLs for essential nutrients developed by NMED are based on dietary guidelines developed by the Institute of Medicine and the National Academy of Sciences. The maximum concentration will be compared to the SSL. Essential nutrients with maximum concentrations less than the SSL will not be retained as COPCs and are not evaluated further. Essential nutrients with maximum concentrations greater than the essential nutrient SSLs will be further evaluated. Like noncarcinogens, a HQ or HI above 1.0 indicates excess risk may be present and additional evaluation may be required.

Evaluation of TPH is conducted separately because its indicator chemicals, as identified in Section 6.2 of the NMED risk guidance (NMED, 2022), will be included in the cumulative risk evaluation when they are detected through analysis of VOCs and SVOCs. Concentrations of TPH will be compared to the lowest direct contact NMED screening levels **Table 11.4**.

If a quantitative evaluation is necessary, site risks and hazard indices for VI or ingestion of potentially contaminated produce/meat/dairy will be added to the cumulative risk and HI.

If the initial cumulative cancer risks and noncancer hazards for soil are less than NMED target risk thresholds, and the maximum concentrations of lead and TPH are less than their respective screening levels, then the predicted health risks will be considered acceptable, and the cumulative risk evaluation is complete. No further investigation or removal action is required. If initial cumulative cancer risks or noncancer hazards exceed the target risk thresholds, or if the maximum concentration of either lead or TPH exceeds its respective screening level, the analytes contributing to the exceedance will be carried forward to Step 3.

Refined Exposure Point Concentration (Step 3)

If the initial cumulative risks or hazards exceed the NMED risk thresholds, then calculate refined exposure concentrations, specifically the 95% UCL of the arithmetic mean of soil concentrations, where sufficient data are available to support calculation of a UCL. ProUCL (most current version) will be used to calculate UCLs, which will be used in place of the maximum concentration. The output for any UCLs incorporated into the risk evaluation will be included as an appendix to the RFI Report. For datasets with less than four detects or datasets with less than 10 samples and a low level of detection (less than 10%), the median concentration will be used as the EPC. Discrete samples from different sampling events may still be combined to calculate an EPC. Discrete and ISM sample results will not be combined to calculate an EPC. Additionally, per NMED direction, ISM samples will not be directly compared to NMED SLs.

Refined Cumulative Risk Evaluation (Step 4)

If the initial cumulative risks or hazards exceed the NMED risk thresholds, then a refined cumulative risk evaluation will be conducted using one or more of the following in the evaluation:

Evaluation of cumulative risks within a smaller exposure area, using the maximum concentrations, or a 95% UCL (if sufficient data are available), from within the smaller area, where it is reasonable to consider that receptor exposure over the entire SWMU or AOC is unlikely. The SWMU or AOC may be sub-divided to refine the exposure area(s) and then 95% UCL(s) may be calculated over the refined exposure area(s).

Segregation of noncancer hazards by toxic endpoint (i.e., target organ) to determine if cumulative noncancer hazards exceed the NMED risk threshold for the organ or body system they affect. The toxic endpoint includes the critical or primary organ or body system effected by exposure to a noncarcinogenic analyte, as well as organs or health effects secondary to the critical effect associated with the chronic toxicity criteria used to establish the NMED screening level. The sources of toxicity information reviewed when toxic endpoints are evaluated are those listed in Section 2.1 of the NMED risk guidance (NMED, 2022).

Development of a qualitative discussion of additional lines of evidence relevant to the COPC for a given AOC or SWMU to describe why a potentially unacceptable cancer risk or noncancer hazard may not be a concern for either the direct contact or the soil to groundwater pathway. Examples of lines of evidence could include a review of the subsurface conditions, the physical and chemical properties of an analyte, frequency of

detection, magnitude of exceedances, visual evidence of contamination, concentration trends, and statements about historical use or sources of an analyte at FWDA.

Cumulative risks and hazards are recalculated after incorporating one or more of the refinements described above. If the cumulative risks and hazards are less than the risk threshold, then no further evaluation is required. If the cumulative risks and hazards are greater than the risk threshold, then the analytes contributing to the exceedance will be carried forward to Step 7.

12.1.5.4 Migration to Groundwater Evaluation (Step 5)

Per Section 4.9 of the NMED Risk Assessment Guidance for Human Health (NMED, 2022), soil concentrations of contaminants will be directly compared to the highest NMED migration to groundwater soil leachate-based SSL (SL-SSL) (included in **Table 11.5**). The most current screening values published by NMED, at the time the risk evaluation is conducted, will be used in the risk evaluation. Migration to groundwater SL-SSLs were derived using two criteria: tap water screening levels and the NMED groundwater and surface water protection levels (20.6.2 New Mexico Administrative Code), and/or Federal MCLs (Table A-3, NMED, 2022). SL-SSLs for TPH mixtures are presented on Table 6-4 of the NMED Risk Assessment Guidance for Human Health (NMED, 2022). The highest migration to groundwater SL-SSL for a chemical based on a DAF of 20 will be applied for initial screening to evaluate potential leaching and migration of contaminants from the vadose zone to groundwater. All soil data, regardless of depth of detection, will be used in the evaluation of the migration to groundwater pathway. The maximum detected concentrations in soil will initially be compared to the SL-SSLs. If the initial comparison results in an exceedance of the migration to groundwater SL-SSLs, a refined EPC and/or site-specific data will be compared to the NMED migration to groundwater SL-SSL.

12.1.5.5 Uncertainty Discussion (Step 6)

An uncertainty discussion will be prepared to address the uncertainty associated with the specific data set and risk evaluation. The uncertainty discussion considers the effects of qualifiers added during data validation, of reporting limits that may be greater than the screening levels, and of analytes that do not have published screening levels. Uncertainty associated with exposure assumptions and toxicity value will also be discussed. The uncertainty discussion will provide an assessment of whether the uncertainty contributes to an overestimation of risk, an underestimation of risk, or has a neutral impact on estimated risks.

12.1.5.6 Additional Cumulative Risk Evaluation (Step 7)

When unacceptable risks are predicted from both the initial and refined cumulative risk evaluations, additional site-specific data evaluation may be conducted to further characterize the nature and uncertainty of the estimated risks or hazards. The additional evaluation, if performed, may include an evaluation of cumulative risk on a sample-by-sample basis, incorporation of refined exposure assumptions, or other appropriate refinement. This step would only be performed if the results of the Steps 2 through 5 indicate that further evaluation would provide additional understanding of potential risks that could further characterize the significance of the unacceptable risks/hazards, or aid in developing a corrective action measure to mitigate the potential health risks.

The results of the cumulative risk evaluation will be presented in the RFI Report and will include tables showing the cumulative risk calculations and appendices presenting the relevant backup documentation.

Lines of Evidence

Lines of evidence may be evaluated for COPCs. Examples of lines of evidence could include a review of the subsurface conditions, the physical and chemical properties of a COPC, frequency of detection, magnitude of exceedances, visual evidence of contamination, concentration trends, and statements about historical use or sources of a COPC at FWDA. Other lines of evidence could include the bioavailability, solubility, and other properties of COPCs.

12.2 SCREENING LEVEL ECOLOGICAL RISK ASSESSMENT

This Supplemental RFI will build on the data previously collected in Parcel 6 in support of an RFI. The data collected during this Supplemental RFI will fill data gaps identified during review of the RFI data as well as provide data to support risk assessment. The evaluation of data to be conducted during the RFI will include initial RFI data, PIIM data, and data collected in support of this Supplemental RFI. Per NMED Comment 9 (NMED, 2019), the evaluation of data will only include data collected after the March 30, 2011 NMED-approved Work Plan (USACE, 2011).

The evaluation of ecological risks will assess potential risks to ecological receptors as required by Attachment 7 (Section 7.5) of the Permit (NMED, 2015a). The general steps for conducting the screening level ecological risk assessment (SLERA) are per the *NMED Risk Assessment Guidance for Site Investigations and Remediation, Volume II, Soil Screening Guidance for Ecological Risk Assessments* (NMED, 2017).

This section discusses the procedures for conducting the SLERA and includes a definition of NMED Target Risk Thresholds (**Section 12.2.1**), a selection of screening levels (**Section 12.2.2**), how to identify chemicals of potential ecological concern (COPECs) (further discussed in **Section 12.2.3**), an evaluation of preliminary exposure pathways (**Section 12.2.4**), a discussion of the ecological preliminary CSM (**Section 12.2.5**), the Tier 1 SLERA (**Section 11.2.6.1**), Tier 2 SLERA (**Section 12.2.6.3**), and uncertainties (**Section 12.2.7**).

A SLERA will be conducted for the AOCs and SWMUs within Parcel 6 to evaluate potential risks to ecological receptors. The SWMUs and AOCs to be evaluated are listed below:

1. SWMU 8: Building 537 – Pesticide and Field Battery Shop (approximately 0.03 acres),
2. SWMU 11: Building 542 – Ammunition Workshop and Building 541 – Heating Plant No. 11 (approximately 0.2 acres),
3. SWMU 20: Western Landfill (approximately 3.83 acres),
4. AOC 42: Building 516 – Ammunition Receiving Building (approximately 0.03 acres),
5. AOC 80: Feature 9 (approximately 16.9 acres),
6. AOC 81: Feature 11 (approximately 0.47 acres),
7. AOC 83: Feature 22 (approximately 3.35 acres), and
8. AOC 84: Feature 12 (approximately 14.2 acres).

The data to be used in the evaluation will include the results from this Supplemental RFI, as well as the results from the original RFI.

12.2.1 Define NMED Target Risk Thresholds

The NMED risk guidance (NMED, 2017; Section 3.5) identifies the target risk threshold as 1.0. This risk level is the threshold over which the potential for adverse effects on ecological receptors can occur and triggers additional ecological evaluation (i.e., Tier 2).

12.2.2 Selection of Screening Levels

The screening levels selected for evaluating ecological hazards for Parcel 6 are those published for representative receptors by NMED in Appendix C of its risk guidance (NMED, 2017). The lowest NMED ESLs for plants, deer mouse, and horned lark are provided in **Table 11.6,** ESLs used in the risk assessment will be the most current published values when the data are evaluated. Additional sources of ecological screening values will be evaluated in the ecological risk assessment for chemicals without an NMED ESL, as necessary. If an NMED ESL is not available, the NMED ESLs (2017) will be supplemented with ESLs using the following hierarchy: USEPA Ecological Soil Screening Levels (Eco-SSLs; USEPA, 2026), Los Alamos National Laboratory (LANL) ESLs (Newport News Nuclear BWXT-Los Alamos, LLC [N3B], 2024), and USEPA Region 4 Ecological Screening Values (USEPA, 2018).

12.2.3 Selection of Chemicals of Potential Ecological Concern

Analytes detected in one or more samples from the data set for each SWMU or AOC will be retained as preliminary COPECs. Analytes that are not detected in any sample will not be retained as preliminary COPECs. A detected chemical will not be eliminated as a COPEC only because toxicity information is lacking; instead, limited or missing toxicity data will be addressed using best professional judgement, including evaluation of surrogate toxicity data from a similar chemical, and will be discussed in the uncertainty section of the RFI Report.

Similar to the human health risk assessment, the ecological risk evaluation process will incorporate a comparison to background concentrations before evaluating cumulative risks. This is consistent with Attachment 7 (Section 7.6) of the Permit (NMED, 2015a), which indicates that the screening level for naturally occurring (i.e., background) constituents can be set at the background level if a background level is approved by NMED. All metals will be compared to background using the process outlined in Section 12.1.5.2 so that metals that are not present at concentrations greater than background are not identified as COPCs.

12.2.4 Preliminary Exposure Pathway Evaluation

The ecological exposure pathway analysis considers the six groups of representative receptors identified in the NMED risk guidance (NMED, 2017): 1) plants, 2) deer mouse, 3) horned lark, 4) kit fox, 5) red-tailed hawk, and 6) pronghorn antelope. The exposure pathway analysis serves to focus the evaluation on only those receptors for which the pathway is potentially complete. Receptors for which the exposure pathway is incomplete, or for which the home range size is much greater than the size of the area being evaluated, will be eliminated from the ecological risk evaluation.

Each AOC or SWMU within Parcel 6 and included in this work plan is smaller than 10% of the home range size for three large home range receptors; therefore, they can be eliminated from further evaluation: 1) kit fox (evaluated only for sites greater than 267 acres), 2) red-tailed hawk (evaluated only for sites greater than 177 acres), and 3) pronghorn antelope (evaluated only for sites greater than 342 acres). The NMED guidance requires plants, the deer mouse, and the horned

lark to be evaluated at all sites, regardless of size. Therefore, the ecological risk evaluation will consider each of these three receptor's exposure to surface soil (0-1 ft bgs [NMED, 2017; Section 3.2]) and subsurface soil (1-6 ft bgs [NMED, 2022; Table 2-6]) using initial RFI data, PIIM data, and data collected in support of this Supplemental RFI. Per NMED Comment 9 (NMED, 2019), the evaluation of data will only include data collected after the March 30, 2011 NMED-approved Work Plan (USACE, 2011).

12.2.5 Preliminary Conceptual Site Model

The ecological CSM describes the COPEC origin, fate, transport, exposure pathways, and receptors of concern. The CSM provides a clear and concise description of how receptors may come into contact with Facility-related COPECs via release mechanisms and exposure to environmental media. The CSM provides the framework for the risk assessment and will be used to identify appropriate exposure pathways and receptors for evaluation.

The primary sources of potential contaminants at Parcel 6 are related to the historical use of FWDA and include the Battery Shop (Building 537) associated with SWMU 8, former ammunition packing, shipping, and receiving at Building 542 and the Heating Plant at Building 541 associated with SWMU 11, the Western Landfill associated with SWMU 20, ammunition storage at AOC 42, the magazine storage area associated with AOC 80, the open storage area/standard ammunition magazine associated with AOC 81, the open storage area/standard ammunition magazine associated with AOC 83, and the temporary open storage area near AOC 84. Primary release mechanisms include direct discharge and leaks, drips, and spills.

Secondary sources of potential contaminants are surface soils (0-1 ft bgs) and/or subsurface soils (1 – 6 ft bgs). Transport mechanisms may include wind erosion from contaminated surface soils, leaching and infiltration to subsurface soil, volatilization of contaminants in surface soil to air, infiltration and leaching to groundwater, and stormwater runoff and erosion of surface soil to surface water and sediment. Groundwater elevations vary at SWMUs/AOCs across Parcel 6 and range from 37.03 to 64.32 feet below the surface (Eco & Associates, 2023 [see Table 4-1]). There are no year-round surface water bodies. Therefore, the groundwater and surface water/sediment exposure pathways are incomplete.

The following potentially complete exposure pathways will be evaluated in the SLERA as illustrated on **Figure 12.1**.

Plant roots in direct contact with contaminated soil,

Deer mouse, horned lark, kit fox, red-tailed hawk, and pronghorn antelope exposed via dermal contact with soil and incidental ingestion of contaminated soil, and

Deer mouse, horned lark, kit fox, red-tailed hawk, and pronghorn antelope exposed via ingestion of prey items through the food web.

While inhalation is a possible exposure route for ecological receptors, inhalation is considered an insignificant exposure pathway when compared to ingestion and dermal contact.

12.2.6 Approach for Evaluating Ecological Risks

The screening level evaluation of ecological risks consists of two tiers:

Tier 1 – Presents an initial quantitative assessment of ecological risk under the most conservative conditions (for example, maximum concentrations, minimum body weights, use of no adverse effect level [NOAEL] toxicity reference values [TRV], and other conservative assumptions). If the Tier 1 evaluation indicates that there is a potential for adverse effects on ecological receptors, then additional evaluation following the Tier 2 SLERA process is required.

Tier 2 – Presents a refined quantitative assessment of ecological risk that incorporates revisions to the exposure dose input parameters and TRVs and re-assesses ecological risk using more realistic assumptions including EPCs (95% UCL). A lines-of-evidence discussion may also be developed as part of the Tier 2 risk evaluation.

12.2.6.1 Tier 1 Screening Level Ecological Risk Assessment

The Tier 1 SLERA provides an assessment of potential ecological risks by using the maximum detected concentration in surface soil (0.0 to 1.0 foot bgs) for non-burrowing receptors, and 0.0 to 6.0 feet bgs for burrowing receptors (NMED, 2022; Table 2-6) for each COPEC and the most protective ESL (or the effect concentration for plants) for the representative receptors with complete or potentially complete exposure pathways identified by the CSM. Detected analytes are identified as COPECs, except for those metals that are found to be present at background levels as determined in the human health risk evaluation using the process described in **Section 12.1.5.2**. If discrete sample results indicate exceedances, additional samples may be collected to delineate vertical extent.

Ecological risks will be calculated using the following steps:

1. Select the maximum concentration for each detected analyte. Exclude compounds not detected in any sample. Also exclude metals determined to be present at naturally occurring levels in the background evaluation.
    - TEFs (see Table 2-1, NMED, 2022) should be applied by multiplying the dioxins/furan analyte concentration by their respective TEF. The adjusted concentrations are then summed resulting in the TEQ. The TEQ should be compared to the NMED ESL (NMED, 2017) for TCDD.
2. Divide the maximum concentration by the most protective Tier 1 ESL (or the effect concentration for plants) to calculate the screening level hazard quotient (SLHQ) using Equations 6 and 8 (NMED, 2017).
    a. Equation 6: SLHQ = Concentration (mg/kg in soil) / effect concentration (mg/kg)
    b. Equation 8: SLHQ = Concentration (mg/kg in soil) / ESL (mg/kg)
3. Sum the individual SLHQs to calculate the overall HI.
4. Compare the overall HI to the NMED target risk threshold of 1.0.

If the overall HI is less than 1.0, then there is no ecological hazard predicted and no further evaluation is required. If the overall HI is greater than 1.0, then there is the potential for an unacceptable ecological hazard and the analytes contributing to the exceedance for each receptor at risk are carried forward to a refined Tier 1 evaluation or to a Tier 2 evaluation.

12.2.6.2 Refined Tier 1 SLERA

The Refined Tier 1 SLERA will be conducted to evaluate the ecological hazard posed by smaller exposure areas for each AOC or SWMU, if evaluation of smaller exposure areas is determined to be warranted based on the data set for a given AOC of SWMU. The same process described in **Section 12.2.6.1** will be applied to each exposure area.

If the HIs for receptors with complete exposure pathways in a given exposure area are less than the NMED target risk threshold of 1.0, then no ecological hazard is predicted for that receptor in that exposure area and no further evaluation was required. If the HI is greater than 1.0 for a receptor in a particular exposure area, then that receptor and exposure area will be carried forward to a Tier 2 risk evaluation.

12.2.6.3 Tier 2 SLERA

The Tier 2 ecological risk evaluation allows for multiple assumptions to be refined before re-calculating the SLHQ and HI for those receptors having SLHQs or overall, HIs greater than 1.0 in the refined Tier 1 ecological risk evaluation. This section describes the refinements allowed by NMED risk guidance (NMED, 2017), and that will be considered for use in the Tier 2 ecological risk evaluation.

Refine the Toxicity Reference Values

The NMED risk guidance (NMED, 2017; Section 4.1.1) provides for revisions to the TRVs (or effect concentrations for plants) to those based on lowest observed adverse effect levels (LOAELs). Tier 2 TRVs/effect concentrations (ECs) represent concentrations that are protective of the population as a whole as opposed to NOAEL-based TRVs that are protective of the most sensitive individuals.

Develop Refined Exposure Doses for Affected Receptors

The NMED risk guidance (NMED, 2017; Section 4.0) provides for revisions to multiple factors in the calculation of exposure doses for Tier 2 evaluations. These factors, and the refinements that are allowed, are listed below:

1. EPC: The maximum concentration may be refined by calculating the 95% UCL, if there are sufficient data to support a UCL calculation. ProUCL (most current version) will be used to calculate the 95% UCL.
2. Area use factor (AUF): This value may be refined using the actual exposure area size and the receptor's average home range size. If the average home range size is less than the size of the exposure area, the AUF will remain at 1.
3. Body weight: The average body weight may be used instead of the minimum body weight.
4. Ingestion rate: The average reported food ingestion rate may be used instead of the maximum food ingestion rate.
5. Wet-weight to dry-weight conversion factor: This will be included to account for the difference in reporting body weight (as wet-weight) and soil concentrations (as dry weight).
6. In addition, a lines-of-evidence discussion may be developed where appropriate to provide additional context for the results of the Tier 2 risk evaluation or to demonstrate that a particular COPEC is not site-related.

Lines of Evidence

Lines of evidence may be evaluated for COPECs. Examples of lines of evidence could include a review of the subsurface conditions, the physical and chemical properties of a COPEC, frequency of detection, magnitude of exceedances, visual evidence of contamination, concentration trends, and statements about historical use or sources of a COPEC at FWDA. Other lines of evidence could include the bioavailability, solubility, and other properties of COPECs.

Conduct the Tier 2 Risk Evaluation

The Tier 2 risk evaluation is conducted using the same procedure as used in the Tier 1 risk evaluation, for those receptors and exposure area that progress into the Tier 2 risk evaluation. The Tier 2 risk evaluation incorporates one or more of the refinements listed in the "Refine the Toxicity Reference Values", "Develop Refined Exposure Doses for Affected Receptors", and "Lines of Evidence" sections to re-assess the ecological risks.

The Tier 2 risk evaluation is considered complete, and no further evaluation is needed, when the HI for each receptor is less than 1.0. In circumstances where the HI for one or more receptors is greater than 1.0 after applying all refinements, the Army will consider if a site-specific ecological risk evaluation is warranted, or if a soil removal action is preferred to additional ecological risk evaluation. The approach to performing a site-specific ecological risk evaluation is not addressed in this Supplemental RFI Work Plan. The Army will work in consultation with NMED on the approach to a site-specific ecological risk evaluation if that is the Army's selected course of action.

12.2.7 Uncertainty Discussion

An uncertainty discussion will be prepared to address the uncertainty associated with the specific dataset and risk evaluation. The uncertainty discussion will consider the effects of qualifiers added during data validation, of reporting limits that may be greater than the ESLs (or effect concentrations for plants), and of exposure assumptions that may not be representative of anticipated receptor use at Parcel 6. The uncertainty discussion will provide an assessment of whether the uncertainty contributes to an overestimation of risk, an underestimation of risk, or has a neutral impact on estimated risks.

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13.0 SCHEDULE

A summary of the approximate schedule for conducting the removal activities at Parcel 6 is presented below.

Work Plan delivered to NMED – September 30, 2025

Field Work – initiates 90 days subsequent to NMED approval of the Supplemental RFI Work Plan

Final RFI Report to NMED – provided to NMED 120 days subsequent to completion of investigation activities including laboratory reporting, data validation, waste disposal, and site restoration.

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TABLES

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Table 1.1 – Summary of Deferred Corrective Actions Required at SWMUs/AOCs

Site/Location	Action Required
SWMU 20	Per NMED comment 5 of the Final RCRA Facility Investigation Parcel 6 Disapproval letter dated October 28, 2016, the Army will be pursuing further investigation of metallic debris locations identified by the airborne geophysical survey in Feature 4.
AOC 28 – Igloo Block B	Additional site characterization and sampling to address comments in the NMED disapproval letter (NMED, 2019) are being addressed in a separate RFI Work Plan for the igloos and revetments at FWDA. The Army submitted the Final Revision 1 Igloo Exteriors and Revetments RCRA Facility Investigation Sampling Work Plan to NMED on December 12, 2025. NMED provided an approval with modifications for the Work Plan on April 6, 2026. Recommended corrective measures will be addressed in corrective measures work plan as needed following the completion of the RFI. The RFI Report will summarize field work completed in actions to date and will subsequently characterize contamination that may still remain.

Table 3.1 – Data Quality Objectives, SWMU 8 - Building 537

Step 1: State the Problem	Step 2: Identify the Goals of the Study	Step 3: Identify Information Inputs	Step 4: Define the Boundaries of the Study	Step 5: Develop the Analytic Approach (Decision Rules)	Step 6: Specify Performance or Acceptance Criteria	Step 7: Develop the Detailed Plan for Obtaining Data (Technical Approach Summary)
Soil samples were not collected from the 0.0-to-1.0-foot bgs depth interval at the locations of borings 0608B537-SB14 and 0608B537-SB15. Potential releases from the septic drain line have not been adequately investigated.	Determine nature and extent of possible contamination of SVOCs, explosives, lead, PCBs, pesticides, and TPH-ORO from the 0.0-to-1.0-foot bgs depth interval at previous boring locations 0608B537-SB14 and 0608B537-SB15. Determine nature and extent of possible	Existing data as discussed in **Section 3.2** and documented in previous reports (USACE, 2011, AMEC, 2018) and new analytical results from proposed discrete soil samples as discussed in **Section 3.5**.	Proposed soil samples at the previous boring locations (0608B537-SB14 and 0608B537-SB15) and step-out borings that may be added to define the lateral extent of contamination at this depth interval.	As described in **Section 3.3**, the purpose of this investigation is to address data gaps and NMED comments (NMED, 2019). Analytical results will be compared to Human Health and Ecological Screening Levels (**Tables 11.4 through 11.6**).	All sampling and analysis will be performed in accordance with this Supplemental RFI Work Plan (**Section 11.0**).	As described in **Section 3.5** and shown on **Table 3.2** and **Figure 3.5**, discrete soil samples will be collected to address the data gaps identified in **Section 3.3**. One soil sample will be collected at the locations of borings 0608B537-SB14 and 0608B537-SB15. Samples will be collected from 0 to 1.0 feet bgs (0608B537-SB14-0.0-1.0D-SO and 0608B537-SB15-0.0-1.0D-SO on **Figure 3.5**) at each location The samples will be analyzed for SVOCs, explosives, RCRA metals, PCBs, pesticides, and TPH-ORO.

Table 3.1 – Data Quality Objectives, SWMU 8 - Building 537

Step 1: State the Problem	Step 2: Identify the Goals of the Study	Step 3: Identify Information Inputs	Step 4: Define the Boundaries of the Study	Step 5: Develop the Analytic Approach (Decision Rules)	Step 6: Specify Performance or Acceptance Criteria	Step 7: Develop the Detailed Plan for Obtaining Data (Technical Approach Summary)
	contamination of VOCs, SVOCs, nitrate, nitrite, major anions, RCRA metals, explosives, PCBs, pesticides, and TPH-ORO from 2.0, 5.0, and 10.0 feet below the septic line at boring locations 0608B537-SB16 through 0608B537-SB21.					Three samples will be collected at depths of 2.0, 5.0, and 10.0 feet below the bottom of the septic line from each of six soil borings (0608B537-SB16 through 0608B537-SB21), as shown on **Figure 3.5**. The bottom of the septic line is assumed to be 10 feet bgs; however, this depth will be confirmed in the field and sample depths adjusted appropriately. Samples will be analyzed for VOCs, SVOCs, nitrate, nitrite, major anions, RCRA metals, explosives, PCBs, pesticides, and TPH-ORO.

Table 3.2 – Proposed Supplemental RFI Soil Samples, SWMU 8 - Building 537

Proposed Sample ID	Sample Depth (feet)	Sample Analyses	Regulatory Requirement
0608B537-SB14-0.0-1.0D-SO	0.0 to 1.0	SVOCs (SW8270E), PAHs (SW8270E-SIM), Explosives (SW8330B), RCRA metals (via SW6020B and 7471B), PCBs (SW8082A), Pesticides (8081B), TPH-ORO (SW8015D)	NMED Comment 26 (NMED, 2019)
0608B537- SB15-0.0-1.0D-SO*	0.0 to 1.0		
0608B537- SB16-12.0-13.0D-SO	12.0 to 13.0 (2.0 to 3.0 below septic line) **	VOCs (via SW8260B); SVOCs (via SW8270E); PAHs (via SW8270E-SIM); Nitrate, nitrite, major anions (via SW9056A); RCRA metals (via SW6020B and 7471B); Explosives (via SW8330B); PCBs (via SW8082A); Pesticides (via SW8081B); TPH-ORO (via SW8015D)	N/A
0608B537- SB16-15.0-16.0D-SO	15.0 to 16.0 (5.0 to 6.0 below septic line) **		
0608B537- SB16-20.0-21.0D-SO	20.0 to 21.0 (10.0 to 11.0 below septic line) **		
0608B537- SB17-12.0-13.0D-SO	12.0 to 13.0 (2.0 to 3.0 below septic line) **		
0608B537- SB17-15.0-16.0D-SO	15.0 to 16.0 (5.0 to 6.0 below septic line) **		
0608B537- SB17-20.0-21.0D-SO	20.0 to 21.0 (10.0 to 11.0 below septic line) **		
0608B537- SB18-12.0-13.0D-SO	12.0 to 13.0 (2.0 to 3.0 below septic line) **		
0608B537- SB18-15.0-16.0D-SO	15.0 to 16.0 (5.0 to 6.0 below septic line) **		

Table 3.2 – Proposed Supplemental RFI Soil Samples, SWMU 8 - Building 537

Proposed Sample ID	Sample Depth (feet)	Sample Analyses	Regulatory Requirement
0608B537- SB18-20.0-21.0D-SO	20.0 to 21.0 (10.0 to 11.0 below septic line) **	VOCs (via SW8260B); SVOCs (via SW8270E); PAHs (via SW8270E-SIM); nitrate, nitrite, major anions (via SW9056A); RCRA metals (via SW6020B and 7471B); explosives (via SW8330B); PCBs (via SW8082A); pesticides (via SW8081B); TPH-ORO (via SW8015D)	N/A
0608B537- SB19-12.0-13.0D-SO*	12.0 to 13.0 (2.0 to 3.0 below septic line) **		
0608B537- SB19-15.0-16.0D-SO	15.0 to 16.0 (5.0 to 6.0 below septic line) **		
0608B537- SB19-20.0-21.0D-SO	20.0 to 21.0 (10.0 to 11.0 below septic line) **		
0608B537- SB20-12.0-13.0D-SO	12.0 to 13.0 (2.0 to 3.0 below septic line) **		
0608B537- SB20-15.0-16.0D-SO	15.0 to 16.0 (5.0 to 6.0 below septic line) **		
0608B537- SB20-20.0-21.0D-SO	20.0 to 21.0 (10.0 to 11.0 below septic line) **		
0608B537- SB21-12.0-13.0D-SO	12.0 to 13.0 (2.0 to 3.0 below septic line) **		
0608B537- SB21-15.0-16.0D-SO	15.0 to 16.0 (5.0 to 6.0 below septic line) **		
0608B537- SB21-20.0-21.0D-SO*	20.0 to 21.0 (10.0 to 11.0 below septic line) **		
QC Samples to be Collected			
Number of Primary VOCs and Nitrate/Nitrite/Major Anions Samples = 18			

Table 3.2 – Proposed Supplemental RFI Soil Samples, SWMU 8 - Building 537

Proposed Sample ID	Sample Depth (feet)	Sample Analyses	Regulatory Requirement
Number of MS/MSD VOCs and Nitrate/Nitrite/Major Anions Samples (5%) = 1			
Number of Field Duplicate VOCs and Nitrate/Nitrite/Major Anions Samples (10%) = 2			
Number of Primary SVOCs, PAHs, Explosives, RCRA Metals, PCB, Pesticides, and TPH-ORO Samples = 20			
Number of MS/MSD SVOCs, PAHs, Explosives, RCRA Metals, PCB, Pesticides, and TPH-ORO Samples (5%) = 1			
Number of Field Duplicate SVOCs, PAHs, Explosives, RCRA Metals, PCB, Pesticides, and TPH-ORO Samples (10%) = 2			

Notes:
* Indicates that a Field Duplicate sample will also be collected.
** Final sample depths will be adjusted in the field based on confirmed depth of septic line.
% = percent
ID = identification
MS/MSD = Matrix Spike/Matrix Spike Duplicate
N/A = not applicable
NMED = New Mexico Environment Department
QC = quality control
PCB = polychlorinated biphenyls
RCRA = Resource Conservation and Recovery Act
RFI = RCRA Facility Investigation
SWMU = solid waste management unit

Table 4.1 – Data Quality Objectives, SWMU 11 - Buildings 541 and 542

Step 1: State the Problem	Step 2: Identify the Goals of the Study	Step 3: Identify Information Inputs	Step 4: Define the Boundaries of the Study	Step 5: Develop the Analytic Approach (Decision Rules)	Step 6: Specify Performance or Acceptance Criteria	Step 7: Develop the Detailed Plan for Obtaining Data (Technical Approach Summary)
Surface samples collected at the east loading dock in 2000 (TKEDCK01, TKEDCK02, TKEDCK03, and TKEDCK04) were not analyzed for HMX. Surface samples collected at the west loading dock in 2000 (TKWDCK01, TKWDCK02, TKWDCK03, and TKWDCK04) were not analyzed for HMX. Samples were not collected from the 0.0 to 1.0 foot bgs depth interval at borings 0611B542-SB01, 0611B542-SB02, 0611B542-SB03, and 0611B542-SB04.	Determine nature and extent of possible contamination of explosives in soil at four previous sample locations at the east loading dock. Determine nature and extent of possible contamination of VOCs, SVOCs, RCRA metals, explosives, and perchlorate from the 0.0 to 1.0 foot bgs depth interval at previous boring locations 0611B542-SB01, 0611B542-SB02, 0611B542-SB03, and 0611B542-SB04.	Existing data as discussed in **Section 4.2** and documented in previous reports (USACE, 2011) and new analytical results from proposed discrete soil samples as discussed in **Section 4.5**.	Proposed soil samples at the previous sample locations and step-out borings that may be added to define the lateral extent of contamination at this depth interval.	As described in **Section 4.3**, the purpose of this investigation is to address data gaps and NMED (NMED, 2019). Analytical results will be compared to Human Health and Ecological Screening Levels (**Tables 11.4 through 11.6**).	All sampling and analysis will be performed in accordance with this Supplemental RFI Work Plan (**Section 11.0**).	As described in **Section 4.5** and shown on **Table 4.2** and **Figure 4.3**, discrete soil samples will be collected to address the data gaps identified in **Section 4.3**. Install four soil borings at the locations of the four samples originally tested for TNT and RDX using immunoassay test kits in 2000 at the east loading dock. Collect samples from 0 to 1.0 feet bgs (0611B542-SB14-0.0-1.0D-SO, 0611B542-SB15-0.0-1.0D-SO, 0611B542-SB01-0.0-1.0D-SO, and 0611B542-SB16-0.0-1.0D-SO on **Figure 4.3**) and analyze for VOCs, SVOCs, RCRA metals, TPH-DRO, explosives, and perchlorate. Install four soil borings at the locations of the four samples originally tested for TNT and RDX using immunoassay test kits in 2000 at the west loading dock. Collect samples from 0 to 1.0 feet bgs (0611B542-SB17-0.0-1.0D-SO, 0611B542-SB18-0.0-1.0D-SO, 0611B542-SB19-0.0-1.0D-SO and 0611B542-SB20-0.0-1.0D-SO on **Figure 4.3**) and analyze for VOCs, SVOCs, RCRA metals, TPH-DRO, explosives, and perchlorate. Collect one soil sample at the locations of previous borings 0611B542-SB01 through 0611B542-SB04. Samples will be collected from 0.0 to 1.0 feet bgs (0611B542-SB01-0.0-1.0D-SO through 0611B542-SB04-0.0-1.0D-SO on **Figure 4.3**) at each location and analyzed for VOCs, SVOCs, RCRA metals, explosives, and perchlorate.

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Table 4.2 – Proposed Supplemental RFI Soil Samples, SWMU 11 - Buildings 541 and 542

Proposed Sample ID	Sample Depth (feet)	Sample Analyses	Regulatory Requirement
0611B542-SB01-0.0-1.0D-SO	0.0 to 1.0	VOCs (SW8260D); SVOCs (SW8270E), PAHs (SW8270E-SIM); RCRA metals (SW6020B and SW7471B); TPH-DRO (SW8015D); Explosives (SW8330B); and Perchlorate (SW6850)	NMED Comments 30 and 71 (NMED, 2019)
0611B542-SB02-0.0-1.0D-SO	0.0 to 1.0		NMED Comment 71 (NMED, 2019)
0611B542-SB03-0.0-1.0D-SO	0.0 to 1.0		
0611B542-SB04-0.0-1.0D-SO*	0.0 to 1.0		
0611B542-SB14-0.0-1.0D-SO	0.0 to 1.0	VOCs (via SW8260D); SVOCs (via SW8270E); PAHs (SW8270E-SIM); RCRA metals (via SW6020B and 7471B); TPH-DRO (via SW8015D); Explosives (SW8330B); and perchlorate (via SW6850)	NMED Comment 30 (NMED, 2019)
0611B542-SB15-0.0-1.0D-SO	0.0 to 1.0		
0611B542-SB16-0.0-1.0D-SO	0.0 to 1.0		
0611B542-SB17-0.0-1.0D-SO	0.0 to 1.0		
0611B542-SB18-0.0-1.0D-SO	0.0 to 1.0		
0611B542-SB19-0.0-1.0D-SO	0.0 to 1.0		
0611B542-SB20-0.0-1.0D-SO	0.0 to 1.0		
QC Samples to be Collected			
Number of Primary VOCs, SVOCs, PAHs, RCRA Metals, TPH-DRO, Explosives, and Perchlorate Samples = 11			
Number of MS/MSD VOCs, SVOCs, PAHs, RCRA Metals, TPH-DRO, Explosives, and Perchlorate Samples (5%) = 1			
Number of Field Duplicate VOCs, SVOCs, PAHs, RCRA Metals, TPH-DRO, Explosives, and Perchlorate Samples (10%) = 2			

Table 4.2 – Proposed Supplemental RFI Soil Samples, SWMU 11 - Buildings 541 and 542

Proposed Sample ID	Sample Depth (feet)	Sample Analyses	Regulatory Requirement

Notes:
* Indicates that a Field Duplicate sample will also be collected.
% = percent
DRO = diesel range organics
ID = identification
MS/MSD = Matrix Spike/Matrix Spike Duplicate
NMED = New Mexico Environment Department
QC = quality control
RCRA = Resource Conservation and Recovery Act
RFI = RCRA Facility Investigation
SSL = Soil Screening Level
SVOC = semi-volatile organic compound
SWMU = solid waste management unit
TPH = total petroleum hydrocarbon
VOC = volatile organic compound

Table 5.1 – Summary of RFI Samples with Concentrations Exceeding Human Health Screening Levels, SWMU 20 – Western Landfill

Sample Identification Number	Analyte	Detected Concentration (mg/kg)	Direct Contact SSL (NMED, 2022) (mg/kg)	Lateral Extent Defined (yes/no, direction not defined)	Vertical Extent Defined (yes/no)
0620F4AEC-05D-SO	Indeno(1,2,3-cd)pyrene	4.4	1.53	No, west	No
0620F4AEC-05D-SO	Benzo(b)fluoranthene	12	1.53	No, west	No
0620F4AEC-05D-SO	Benzo(a)pyrene	3.9	1.12	No, west	No
0620F4AEC-05D-SO	Dibenz(a,h)anthracene	0.94	0.153	No, west	No
0620F4AEC-05D-SO	Benz(a)anthracene	5.7	1.53	No, west	No

Notes:
mg/kg = milligram(s) per kilogram
SSL = soil screening level

Table 5.2 – Data Quality Objectives, SWMU 20, Western Landfill – Feature 4

Step 1: State the Problem	**Step 2: Identify the Goals of the Study**	**Step 3: Identify Information Inputs**	**Step 4: Define the Boundaries of the Study**	**Step 5: Develop the Analytic Approach (Decision Rules)**	**Step 6: Specify Performance or Acceptance Criteria**	**Step 7: Develop the Detailed Plan for Obtaining Data (Technical Approach Summary)**
The lateral and vertical extent of PAHs in soil at 0620F4AEC-05D-SO is not defined.	Determine the vertical and lateral extent of PAH contamination at and west of 0620F4AEC-05D-SO.	Existing data as discussed in **Section 5.2** and documented in previous reports (USACE, 2011, AMEC, 2018) and new analytical results from proposed discrete soil samples as discussed in **Section 5.5**.	Proposed soil samples at the previous sample locations and step-out borings that may be added to define the lateral extent of contamination at this depth interval.	As described in **Section 5.3**, the purpose of this investigation is to address data gaps and NMED comments (NMED, 2019). Analytical results will be compared to Human Health and Ecological Screening Levels (**Tables 11.4 through 11.6**).	All sampling and analysis will be performed in accordance with this Supplemental RFI Work Plan (**Section 11.0**).	As described in **Section 5.5** and shown on **Table 5.3,** and **Figure 5.5**, discrete soil samples will be collected to address the data gaps identified in **Section 5.3**. Collect an additional sample at the location of previous sample location from a depth of 0.5 to 1.0 foot bgs and 0.5 to 1.0 foot bgs 0620F4-SB01-0.5-1.0D-SO and 0620F4-SB01-1.5-2.0D-SO on **Figure 5.5**) and step-out samples at a location 10.0 feet west of the original sample at a depths of 0.0 to 0.5 and 0.5 to 1.0 foot bgs (0620F4-SB02-0.0-0.5D-SO and 0620F4-SB02-0.5-1.0D-SO on **Figure 5.5**) to be analyzed for PAHs and explosives.

Table 5.3 – Proposed Supplemental RFI Soil Samples, SWMU 20 - Western Landfill

Proposed Sample ID	Sample Depth (feet)	Sample Analyses	Regulatory Requirement
0620F4-SB01-0.5-1.0D-SO	0.5 to 1.0	PAHs (SW8270E-SIM); explosives (SW8330B)	NMED Disapproval of PIIM Report, Revision 1.0 Comment 15 (NMED, 2018)
0620F4-SB01-1.5-2.0D-SO	1.5 to 2.0		
0620F4-SB02-0.0-0.5D-SO	0.0 to 0.5		
0620F4-SB02-0.5-1.0D-SO	0.5 to 1.0		
0620F4-SB02-1.5-2.0D-SO*	1.5 to 2.0		
QC Samples to be Collected			
Number of Primary PAHs and Explosives Samples = 5			
Number of MS/MSD PAHs and Explosives Samples = (5%) 1			
Number of Field Duplicate PAHs and Explosives Samples = (10%) 1			

Notes:
* Indicates that a Field Duplicate sample will also be collected.
% = percent
ID = identification
MS/MSD = Matrix Spike/Matrix Spike Duplicate
NMED = New Mexico Environment Department
PAH = polyaromatic hydrocarbon
PIIM = Permittee-Initiated Interim Measures
QC = quality control
RCRA = Resource Conservation and Recovery Act
RFI = RCRA Facility Investigation
SVOC = semi-volatile organic compound
SWMU = solid waste management unit
VOC = volatile organic compound

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Table 6.1 – Data Quality Objectives, AOC 42 – Building 516

Step 1: State the Problem	Step 2: Identify the Goals of the Study	Step 3: Identify Information Inputs	Step 4: Define the Boundaries of the Study	Step 5: Develop the Analytic Approach (Decision Rules)	Step 6: Specify Performance or Acceptance Criteria	Step 7: Develop the Detailed Plan for Obtaining Data (Technical Approach Summary)
Per NMED Comments 58 and 59 (NMED, 2019), concentrations of ISM samples cannot be directly compared to NMED SSLs.	Determine nature and extent of possible contamination of RCRA metals and explosives within the previous AOC 42 ISM decision unit.	Existing data as discussed in **Section 6.2** and documented in previous reports (USACE, 2011) and new analytical results from proposed discrete soil samples as discussed in **Section 6.5**.	Proposed soil samples at the previous sample locations and step-out borings that may be added to define the lateral extent of contamination at this depth interval.	As described in **Section 6.3**, the purpose of this investigation is to address data gaps and NMED comments (NMED, 2019). Analytical results will be compared to Human Health and Ecological Screening Levels (**Tables 11.4 through 11.6**).	All sampling and analysis will be performed in accordance with this Supplemental RFI Work Plan (**Section 11.0**).	As described in **Section 6.5** and shown on **Table 6.2,** and **Figure 6.3**, discrete soil samples will be collected to address the data gaps identified in **Section 6.3**. Collect four discrete soil samples from within the AOC 42 ISM decision unit. Samples will be collected from 0 to 0.5 feet bgs (0642B-516-SS01-0.0-0.5D-SO and 0642B-516-SS02-0.0-0.5D-SO on **Figure 6.3**) and from 0.5 to 1.0 feet bgs (0642B-516-SS01-0.5-1.0D-SO and 0642B-516-SS02-0.5-1.0D-SO on **Figure 6.3**) and analyzed for RCRA metals (via SW6020B and 7471B) and explosives (via SW8330B). Collect one discrete soil sample from two different depths at locations 10 feet to the north, west, and south of Building 516 as well as in the center of the building footprint. Samples will be collected from 0 to 0.5 feet bgs (0642B-516-SS03-0.0-0.5D-SO through 0642B-516-SS06-0.0-0.5D-SO on **Figure 6.3**) and from 0.5 to 1.0 feet bgs (0642B-516-SS03-0.5-1.0D-SO through 0642B-516-SS06-0.5-1.0D-SO on **Figure 6.3**) at each of the four locations and analyzed for RCRA metals (via SW6020B and 7471B) and explosives (via SW8330B).

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Table 6.2 – Proposed Supplemental RFI Soil Samples, AOC 42 – Building 516

Proposed Sample ID	Sample Depth (feet)	Sample Analyses	Regulatory Requirement
0642B-516-SS01-0.0-0.5D-SO	0.0 to 0.5	RCRA Metals (SW6020B SW7471B); Explosives (SW8330B)	NMED Comments 58 and 59 (NMED, 2019)
0642B-516-SS01-0.5-1.0D-SO	0.5 to 1.0		
0642B-516-SS02-0.0-0.5D-SO	0.0 to 0.5		
0642B-516-SS02-0.5-1.0D-SO	0.5 to 1.0		
0642B-516-SS03-0.0-0.5D-SO*	0.0 to 0.5		
0642B-516-SS03-0.5-1.0D-SO	0.5 to 1.0		
0642B-516-SS04-0.0-0.5D-SO	0.0 to 0.5		
0642B-516-SS04-0.5-1.0D-SO	0.5 to 1.0		
0642B-516-SS05-0.5-1.0D-SO	0.5 to 1.0		
0642B-516-SS05-0.5-1.0D-SO*	0.5 to 1.0		
0642B-516-SS06-0.0-0.5D-SO	0.0 to 0.5		
0642B-516-SS06-0.5-1.0D-SO	0.5 to 1.0		

Table 6.2 – Proposed Supplemental RFI Soil Samples, AOC 42 – Building 516

Proposed Sample ID	Sample Depth (feet)	Sample Analyses	Regulatory Requirement
QC Samples to be Collected			
Number of Primary RCRA Metals and Explosives Samples = 12			
Number of MS/MSD RCRA Metals and Explosives Samples = (5%) 1			
Number of Field Duplicate RCRA Metals and Explosives Samples = (10%) 2			

Notes:
* Indicates that a Field Duplicate sample will also be collected.
AOC = area of concern
ID = identification
MS/MSD = Matrix Spike/Matrix Spike Duplicate
NMED = New Mexico Environment Department
QC = quality control
RCRA = Resource Conservation and Recovery Act
RFI = RCRA Facility Investigation

Table 7.1 – Data Quality Objectives, AOC 80 – Feature 9

Step 1: State the Problem	Step 2: Identify the Goals of the Study	Step 3: Identify Information Inputs	Step 4: Define the Boundaries of the Study	Step 5: Develop the Analytic Approach (Decision Rules)	Step 6: Specify Performance or Acceptance Criteria	Step 7: Develop the Detailed Plan for Obtaining Data (Technical Approach Summary)
Per NMED Comment 60 (NMED, 2019), concentrations of ISM samples cannot be directly compared to NMED SSLs.	Determine nature and extent of possible contamination of RCRA metals and explosives within the previous AOC 80 ISM decision units.	Existing data as discussed in **Section 7.2** and documented in previous reports (USACE, 2011) and new analytical results from proposed discrete soil samples as discussed in **Section 7.5**.	Proposed soil samples at the previous sample locations and step-out borings that may be added to define the lateral extent of contamination at this depth interval.	As described in **Section 7.3**, the purpose of this investigation is to address data gaps and NMED comments (NMED, 2019). Analytical results will be compared to Human Health and Ecological Screening Levels (**Tables 11.4 through 11.6**).	All sampling and analysis will be performed in accordance with this Supplemental RFI Work Plan (**Section 11.0**).	As described in **Section 7.5** and shown on **Table 7.2,** and **Figure 7.3**, discrete soil samples will be collected to address the data gaps identified in **Section 7.3**. Collect two discrete soil samples from within the each of the 24 AOC 80 ISM decision units. Samples will be collected from 0 to 0.5 feet bgs (0680-SS01-0.0-0.5D-SO through 0680-SS24-0.0-0.5D-SO on **Figure 7.3**) and from 0.5 to 1.0 feet bgs (0680-SS01-0.5-1.0D-SO through 0680-SS24-0.5-1.0D-SO on **Figure 7.3**) and analyzed for RCRA metals (via SW6020B and 7471B) and explosives (via SW8330B).

Table 7.2 – Proposed Supplemental RFI Soil Samples, AOC 80 – Feature 9

Proposed Sample ID	Sample Depth (feet)	Sample Analyses	Regulatory Requirement
0680-SS01-0.0-0.5D-SO	0.0 to 0.5	RCRA Metals (SW6020B and SW7471B); Explosives (SW8330B)	NMED Comment 60 (NMED, 2019)
0680-SS01-0.5-1.0D-SO	0.5 to 1.0		
0680-SS02-0.0-0.5D-SO	0.0 to 0.5		
0680-SS02-0.5-1.0D-SO	0.5 to 1.0		
0680-SS03-0.0-0.5D-SO	0.0 to 0.5		
0680-SS03-0.5-1.0D-SO	0.5 to 1.0		
0680-SS04-0.0-0.5D-SO	0.0 to 0.5		
0680-SS04-0.5-1.0D-SO	0.5 to 1.0		
0680-SS05-0.0-0.5D-SO	0.0 to 0.5		
0680-SS05-0.5-1.0D-SO*	0.5 to 1.0		
0680-SS06-0.0-0.5D-SO	0.0 to 0.5		
0680-SS06-0.5-1.0D-SO	0.5 to 1.0		
0680-SS07-0.0-0.5D-SO	0.0 to 0.5		
0680-SS07-0.5-1.0D-SO	0.5 to 1.0		
0680-SS08-0.0-0.5D-SO	0.0 to 0.5		
0680-SS08-0.5-1.0D-SO	0.5 to 1.0		
0680-SS09-0.0-0.5D-SO	0.0 to 0.5		
0680-SS09-0.5-1.0D-SO	0.5 to 1.0		
0680-SS10-0.0-0.5D-SO	0.0 to 0.5		
0680-SS10-0.5-1.0D-SO*	0.5 to 1.0		
0680-SS11-0.0-0.5D-SO	0.0 to 0.5		
0680-SS11-0.5-1.0D-SO	0.5 to 1.0		

Table 7.2 – Proposed Supplemental RFI Soil Samples, AOC 80 – Feature 9

Proposed Sample ID	Sample Depth (feet)	Sample Analyses	Regulatory Requirement
0680-SS12-0.0-0.5D-SO	0.0 to 0.5	RCRA Metals (SW6020B and SW7471B); Explosives (SW8330B)	NMED Comment 60 (NMED, 2019)
0680-SS12-0.5-1.0D-SO	0.5 to 1.0		
0680-SS13-0.0-0.5D-SO	0.0 to 0.5		
0680-SS13-0.5-1.0D-SO	0.5 to 1.0		
0680-SS14-0.0-0.5D-SO	0.0 to 0.5		
0680-SS14-0.5-1.0D -SO	0.5 to 1.0		
0680-SS15-0.0-0.5D-SO	0.0 to 0.5		
0680-SS15-0.5-1.0D -SO*	0.5 to 1.0		
0680-SS16-0.0-0.5D-SO	0.0 to 0.5		
0680-SS16-0.5-1.0D -SO	0.5 to 1.0		
0680-SS17-0.0-0.5D-SO	0.0 to 0.5		
0680-SS17-0.5-1.0D -SO	0.5 to 1.0		
0680-SS18-0.0-0.5D-SO	0.0 to 0.5		
0680-SS18-0.5-1.0D -SO	0.5 to 1.0		
0680-SS19-0.0-0.5D-SO	0.0 to 0.5		
0680-SS19-0.5-1.0D -SO	0.5 to 1.0		
0680-SS20-0.0-0.5D-SO	0.0 to 0.5		
0680-SS20-0.5-1.0D -SO*	0.5 to 1.0		
0680-SS21-0.0-0.5D-SO	0.0 to 0.5		
0680-SS21-0.5-1.0D -SO	0.5 to 1.0		
0680-SS22-0.0-0.5D-SO	0.0 to 0.5		
0680-SS22-0.5-1.0D -SO	0.5 to 1.0		

Table 7.2 – Proposed Supplemental RFI Soil Samples, AOC 80 – Feature 9

Proposed Sample ID	Sample Depth (feet)	Sample Analyses	Regulatory Requirement
0680-SS23-0.0-0.5D-SO	0.0 to 0.5	RCRA Metals (SW6020B and SW7471B); Explosives (SW8330B)	NMED Comment 60 (NMED, 2019)
0680-SS23-0.5-1.0D -SO	0.5 to 1.0		
0680-SS24-0.0-0.5D-SO	0.0 to 0.5		
0680-SS24-0.5-1.0D -SO*	0.5 to 1.0		
QC Samples to be Collected			
Number of Primary RCRA Metals and Explosives Samples = 48			
Number of MS/MSD RCRA Metals and Explosives Samples (5%) = 3			
Number of Field Duplicate RCRA Metals and Explosives Samples (10%) = 5			

Notes:
* Indicates that a Field Duplicate sample will also be collected.
AOC = area of concern
ID = identification
MS/MSD = Matrix Spike/Matrix Spike Duplicate
NMED = New Mexico Environment Department
QC = quality control
RCRA = Resource Conservation and Recovery Act
RFI = RCRA Facility Investigation

Table 8.1 – Data Quality Objectives, AOC 81 – Feature 11

Step 1: State the Problem	**Step 2: Identify the Goals of the Study**	**Step 3: Identify Information Inputs**	**Step 4: Define the Boundaries of the Study**	**Step 5: Develop the Analytic Approach (Decision Rules)**	**Step 6: Specify Performance or Acceptance Criteria**	**Step 7: Develop the Detailed Plan for Obtaining Data (Technical Approach Summary)**
Per NMED Comment 63 (NMED, 2019), concentrations of ISM samples cannot be directly compared to NMED SSLs.	Determine nature and extent of possible contamination of RCRA metals and explosives within the previous AOC 81 ISM decision units.	Existing data as discussed in **Section 8.2** and documented in previous reports (USACE, 2011) and new analytical results from proposed discrete soil samples as discussed in **Section 8.5**.	Proposed soil samples at the previous sample locations and step-out borings that may be added to define the lateral extent of contamination at this depth interval.	As described in **Section 8.3**, the purpose of this investigation is to address data gaps and NMED comments (NMED, 2019). Analytical results will be compared to Human Health and Ecological Screening Levels (**Tables 11.4 through 11.6**).	All sampling and analysis will be performed in accordance with this Supplemental RFI Work Plan (**Section 11.0**).	As described in **Section 8.5** and shown on **Table 8.2,** and **Figure 8.3**, discrete soil samples will be collected to address the data gaps identified in **Section 8.3**. Collect two discrete soil samples from within the each of the three AOC 81 ISM sample decision units. Samples will be collected from 0 to 0.5 feet bgs (0681-SS01-0.0-0.5D-SO through 0681-SS03-0.0-0.5D-SO on **Figure 8.3**) and from 0.5 to 1.0 feet bgs (0681-SS01-0.5-1.0D-SO through 0681-SS03-0.5-1.0D-SO on **Figure 8.3**) at each grid location and analyzed for RCRA metals (via SW6020B and 7471B), explosives (via SW8330B), and dioxins/furans (via SW8290).

Table 8.2 – Proposed Supplemental RFI Soil Samples, AOC 81 – Feature 11

Proposed Sample ID	Sample Depth (feet)	Sample Analyses	Regulatory Requirement
0681-SS01-0.0-0.5D-SO	0.0 to 0.5	RCRA metals (SW6020B and SW7471B); Explosives (SW8330B); Dioxins/furans (SW8290)	NMED Comment 63 (NMED, 2019)
0681-SS01-0.5-1.0D-SO	0.5 to 1.0		
0681-SS02-0.0-0.5D-SO	0.0 to 0.5		
0681-SS02-0.5-1.0D-SO	0.5 to 1.0		
0681-SS03-0.0-0.5D-SO	0.0 to 0.5		
0681-SS03-0.5-1.0D-SO*	0.5 to 1.0		
QC Samples to be Collected			
Number of Primary RCRA Metals, Explosives, and Dioxins/Furans Samples = 6			
Number of MS/MSD RCRA Metals, Explosives, and Dioxins/Furans Samples (5%) = 1			
Number of Field Duplicate RCRA Metals, Explosives, and Dioxins/Furans Samples (10%) = 1			

Notes:
* Indicates that a Field Duplicate sample will also be collected.
AOC = area of concern
ID = identification
MS/MSD = Matrix Spike/Matrix Spike Duplicate
NMED = New Mexico Environment Department
QC = quality control
RCRA = Resource Conservation and Recovery Act
RFI = RCRA Facility Investigation

Table 9.1 – Data Quality Objectives, AOC 83 – Feature 22

Step 1: State the Problem	Step 2: Identify the Goals of the Study	Step 3: Identify Information Inputs	Step 4: Define the Boundaries of the Study	Step 5: Develop the Analytic Approach (Decision Rules)	Step 6: Specify Performance or Acceptance Criteria	Step 7: Develop the Detailed Plan for Obtaining Data (Technical Approach Summary)
Per NMED Comment 60 (NMED, 2019), concentrations of ISM samples cannot be directly compared to NMED SSLs.	Determine nature and extent of possible contamination of RCRA metals and explosives within the previous AOC 83 ISM decision units.	Existing data as discussed in **Section 9.2** and documented in previous reports (USACE, 2011) and new analytical results from proposed discrete soil samples as discussed in **Section 9.5**.	Proposed soil samples at the previous sample locations and step-out borings that may be added to define the lateral extent of contamination at this depth interval.	As described in **Section 9.3**, the purpose of this investigation is to address data gaps and NMED comments (NMED, 2019). Analytical results will be compared to Human Health and Ecological Screening Levels (**Tables 11.4 through 11.6**).	All sampling and analysis will be performed in accordance with this Supplemental RFI Work Plan (**Section 11.0**).	As described in **Section 9.5** and shown on **Table 9.2,** and **Figure 9.3**, discrete soil samples will be collected to address the data gaps identified in **Section 9.3**. Collect two discrete soil samples from within the each of the six AOC 83 ISM decision units. Samples will be collected from 0 to 0.5 feet bgs (0683-SS01-0.0-0.5D-SO through 068-SS06-03.0-0.5D-SO on **Figure 9.3**) and from 0.5 to 1.0 feet bgs (0680-SS01-0.5-1.0D-SO through 0680-SS06-0.5-1.0D-SO on **Figure 9.3**) and analyzed for RCRA metals (via SW6020B and 7471B) and explosives (via SW8330B).

Table 9.2 – Proposed Supplemental RFI Soil Samples, AOC 83 – Feature 22

Proposed Sample ID	Sample Depth (feet)	Sample Analyses	Regulatory Requirement
0683-SS01-0.0-0.5D-SO	0.0 to 0.5	RCRA Metals (SW6020B and SW7471B); Explosives (SW8330B)	NMED Comment 60 (NMED, 2019)
0683-SS01-0.5-1.0D-SO	0.5 to 1.0		
0683-SS02-0.0-0.5D-SO	0.0 to 0.5		
0683-SS02-0.5-1.0D-SO	0.5 to 1.0		
0683-SS03-0.0-0.5D-SO	0.0 to 0.5		
0683-SS03-0.5-1.0D-SO*	0.5 to 1.0		
0683-SS04-0.0-0.5D-SO	0.0 to 0.5		
0683-SS04-0.5-1.0D-SO	0.5 to 1.0		
0683-SS05-0.0-0.5D-SO	0.0 to 0.5		
0683-SS05-0.5-1.0D-SO	0.5 to 1.0		
0683-SS06-0.0-0.5D-SO	0.0 to 0.5		
0683-SS06-0.5-1.0D-SO*	0.5 to 1.0		
QC Samples to be Collected			
Number of Primary RCRA Metals and Explosives Samples = 12			
Number of MS/MSD RCRA Metals and Explosives Samples (5%) = 1			
Number of Field Duplicate RCRA Metals and Explosives Samples (10%) = 2			

Notes:
* Indicates that a Field Duplicate sample will also be collected.
AOC = area of concern
ID = identification
MS/MSD = Matrix Spike/Matrix Spike Duplicate
NMED = New Mexico Environment Department
QC = quality control
RCRA = Resource Conservation and Recovery Act
RFI = RCRA Facility Investigation

Table 10.1 – Data Quality Objectives, AOC 84 – Feature 12

Step 1: State the Problem	Step 2: Identify the Goals of the Study	Step 3: Identify Information Inputs	Step 4: Define the Boundaries of the Study	Step 5: Develop the Analytic Approach (Decision Rules)	Step 6: Specify Performance or Acceptance Criteria	Step 7: Develop the Detailed Plan for Obtaining Data (Technical Approach Summary)
Per NMED Comment 65 (NMED, 2019), the results of the ISM data cannot be used for compliance purposes. In addition, concentrations of ISM samples cannot be directly compared to NMED SSLs.	Determine nature and extent of possible contamination of RCRA metals and explosives within the previous AOC 84 ISM decision units.	Existing data as discussed in **Section 10.2** and documented in previous reports (USACE, 2011) and new analytical results from proposed discrete soil samples as discussed in **Section 10.5**.	Proposed soil samples at the previous sample locations and step-out borings that may be added to define the lateral extent of contamination at this depth interval.	As described in **Section 10.3**, the purpose of this investigation is to address data gaps and NMED comments (NMED, 2019). Analytical results will be compared to Human Health and Ecological Screening Levels (**Tables 11.4 through 11.6**).	All sampling and analysis will be performed in accordance with this Supplemental RFI Work Plan (**Section 11.0**).	As described in **Section 10.5** and shown on **Table 10.2,** and **Figure 10.3**, discrete soil samples will be collected to address the data gaps identified in **Section 10.3**. Collect two discrete soil samples from within the each of the eight AOC 84 ISM decision units sampled during the RFI and the four ISM decision units that correspond to the third ISM grid sampled during the release assessment investigation in 2008

Table 10.1 – Data Quality Objectives, AOC 84 – Feature 12

Step 1: State the Problem	Step 2: Identify the Goals of the Study	Step 3: Identify Information Inputs	Step 4: Define the Boundaries of the Study	Step 5: Develop the Analytic Approach (Decision Rules)	Step 6: Specify Performance or Acceptance Criteria	Step 7: Develop the Detailed Plan for Obtaining Data (Technical Approach Summary)
						but omitted during the RFI. Samples will be collected from 0 to 0.5 feet bgs (0684-SS01-0.0-0.5D-SO through 0684-SS12-0.0-0.5D-SO on **Figure 10.3**) and from 0.5 to 1.0 feet bgs (0684-SS01-0.5-1.0D-SO through 0684-SS12-0.5-1.0D-SO on **Figure 10.3**) at each grid location and analyzed for RCRA metals and explosives.

Table 10.2 – Proposed Supplemental RFI Soil Samples, AOC 84 – Feature 12

Proposed Sample ID	Sample Depth (feet)	Sample Analyses	Regulatory Requirement
0684-SS01-0.0-0.5D-SO	0.0 to 0.5	RCRA Metals (SW6020B and SW7471B); Explosives (SW8330B)	NMED Comment 65 (NMED, 2019)
0684-SS01-0.5-1.0D-SO	0.5 to 1.0		
0684-SS02-0.0-0.5D-SO	0.0 to 0.5		
0684-SS02-0.5-1.0D-SO	0.5 to 1.0		
0684-SS03-0.0-0.5D-SO	0.0 to 0.5		
0684-SS03-0.5-1.0D-SO	0.5 to 1.0		
0684-SS04-0.0-0.5D-SO	0.0 to 0.5		
0684-SS04-0.5-1.0D-SO	0.5 to 1.0		
0684-SS05-0.0-0.5D-SO	0.0 to 0.5		
0684-SS05-0.5-1.0D-SO*	0.5 to 1.0		
0684-SS06-0.0-0.5D-SO	0.0 to 0.5		
0684-SS06-0.5-1.0D-SO	0.5 to 1.0		
0684-SS07-0.0-0.5D-SO	0.0 to 0.5		
0684-SS07-0.5-1.0D-SO	0.5 to 1.0		
0684-SS08-0.0-0.5D-SO	0.0 to 0.5		
0684-SS08-0.5-1.0D-SO	0.5 to 1.0		
0684-SS09-0.0-0.5D-SO	0.0 to 0.5		
0684-SS09-0.5-1.0D-SO	0.5 to 1.0		

Table 10.2 – Proposed Supplemental RFI Soil Samples, AOC 84 – Feature 12

Proposed Sample ID	Sample Depth (feet)	Sample Analyses	Regulatory Requirement
0684-SS10-0.0-0.5D-SO	0.0 to 0.5	RCRA Metals (SW6020B and SW7471B); Explosives (SW8330B)	NMED Comment 65 (NMED, 2019)
0684-SS10-0.5-1.0D-SO*	0.5 to 1.0		
0684-SS11-0.0-0.5D-SO	0.0 to 0.5		
0684-SS11-0.5-1.0D-SO	0.5 to 1.0		
0684-SS12-0.0-0.5D-SO	0.0 to 0.5		
0684-SS12-0.5-1.0D-SO*	0.5 to 1.0		
QC Samples to be Collected			
Number of Primary RCRA Metals and Explosives Samples = 24			
Number of MS/MSD RCRA Metals and Explosives Samples (5%) = 2			
Number of Field Duplicate RCRA Metals and Explosives Samples (10%) = 3			

Notes:
* Indicates that a Field Duplicate sample will also be collected.
AOC = area of concern
ID = identification
MS/MSD = Matrix Spike/Matrix Spike Duplicate
NMED = New Mexico Environment Department
QC = quality control
RCRA = Resource Conservation and Recovery Act
RFI = RCRA Facility Investigation

Table 11.1 – Summary of Analytical Methods, Sample Containers, Preservation, and Holding Times

Analysis (or Analysis Preparation Method)	Matrix	Analytical Method (USEPA SW846 or ASTM)	Sample Volume/Container	Preservative	Maximum Holding Time (collection until extraction/ extraction until analysis)
Volatile Organic Compounds	Soil	8260D	2 x Terra Core®, 40-mL VOA Vials with septa cap, pre-tared with stir bar and Sodium Bisulfate; 1 x Terra Core®, 40-mL VOA vial with closed cap, pre-tared with Methanol	Cool to ≤ 6°C (EnCore® or field extraction)	14 days
Semi-Volatile Organic Compounds	Soil	8270E	4-oz or 8-oz Glass Jar	Cool to ≤ 6°C	14/40 days
Polycyclic Aromatic Hydrocarbons- Selected Ion Mode	Soil	8270E-SIM	4-oz or 8-oz Glass Jar	Cool to ≤ 6°C	14/40 days
Polychlorinated Biphenyls	Soil	8082A	4-oz or 8-oz Glass Jar	Cool to ≤ 6°C	1 year/40 days
Pesticides	Soil	8081B	4-oz or 8-oz Glass Jar	Cool to ≤ 6°C	14/40 days
RCRA Metals	Soil	6020B/7471B	4-oz or 8-oz Glass Jar	Cool to ≤ 6°C	6 months (28 days for Hg)
Total Petroleum Hydrocarbons – Diesel-Range Organics	Soil	8015D	4-oz or 8-oz Glass Jar	Cool to ≤ 6°C	14/40 days
Total Petroleum Hydrocarbons - Diesel-Range Organics /Residual Range Organics (Oil Range Organics)	Soil	8015D	1 x 4oz. glass jar	Cool to ≤ 6°C	14/40 days

Table 11.1 – Summary of Analytical Methods, Sample Containers, Preservation, and Holding Times

Analysis (or Analysis Preparation Method)	Matrix	Analytical Method (USEPA SW846 or ASTM)	Sample Volume/Container	Preservative	Maximum Holding Time (collection until extraction/ extraction until analysis)
Dioxins/Furans	Soil	8290A	1 x8-oz Amber Glass Jar	Cool, 0-6ºC	365 days
Explosive Compounds	Soil	8330B	4-oz Glass or HDPE Jar	Cool to ≤ 6°C	14/40 days
Perchlorate	Soil	6850	1 x 4 oz amber glass jar	Cool, 0-6ºC	28 days
Nitrate as Nitrogen/Nitrite as Nitrogen/Anions	Soil	SW9056A	(1) 4 oz glass jar with Teflon® lined lid	Cool to ≤ 6°C	28 days to leach/ 48 hours to analyze

Notes:

≤ = less than or equal to
°C = degrees Celsius
ASTM = American Society of Testing and Materials
Hg = mercury
mL = milliliter(s)
oz = ounce(s)
RCRA = Resource Conservation and Recovery Act
USEPA = United States Environmental Protection Agency
VOA = volatile organic analysis

Samples will be analyzed using the most recently published versions of the analytical methods.

More than one analysis may be performed from the same sample container, as long as all preservation requirements have been met and there is sufficient sample mass available.

Table 11.2 – Quality Control Samples for Precision and Accuracy

Data Quality Indicator	Quality Control Type	Minimum Frequency	Measurement Performance Criteria (MPC)
Precision	Field Duplicate Sample	One every 10 samples (10%)	RPD ≤ 50% for soil and ≤30% for water when target analytes are detected in both samples with concentrations > LOQ
Accuracy/Contamination	Equipment Blank	One every 10 samples (10%) for reusable equipment	No analytes detected > ½ LOQ or > 1/10th the amount measured in any sample or 1/10th the regulatory limit, whichever is greater
Accuracy/Contamination	Trip Blank	One set (two VOAs) per each cooler containing VOC samples	No analytes detected > ½ LOQ or > 1/10th the amount measured in any sample or 1/10th the regulatory limit, whichever is greater
Accuracy/Contamination	Method Blank	One per preparation or analytical batch, at least one every 20 samples (rounded up) (5%)	No analytes detected > ½ LOQ or > 1/10th the amount measured in any sample or 1/10th the regulatory limit, whichever is greater
Accuracy/Precision	Laboratory Control Sample or Blank Spike	One per preparation or analytical batch, at least one every 20 samples (rounded up) (5%)	Per QSM criteria. Control limits for each method included in Worksheet #28 of the QAPP.
Accuracy/Precision	MS Percent Recovery (QSM Percent Recovery Goals)	One every 20 samples (rounded up) (5%)	Per QSM criteria. Control limits for each method included in Worksheet #28 of the QAPP.
Accuracy/Precision	Surrogate Spike (for organics only)	All samples and QC	Per QSM criteria. Control limits for each method included in Worksheet #28 of the QAPP.

Notes:

LOQ = Limit of Quantitation
MS = matrix spike
MSD = matrix spike duplicate
QAPP = Quality Assurance Project Plan
QC = quality control
QSM = Quality Systems Manual (U.S. Department of Defense)
RPD = relative percent difference
VOA = volatile organic analysis
VOC = volatile organic compound

Table 11.3 – Data Validation Flags

Flag	Interpretation
U	The analyte was not detected and was reported as less than the limit of quantitation (LOQ). The LOQ has been adjusted for any dilution or concentration of the sample.
J	The reported result was an estimated value with an unknown bias.
J+	The result was an estimated quantity, but the result may be biased high.
J-	The result was an estimated quantity, but the result may be biased low.
UJ	The analyte was not detected and was reported as less than the LOQ. However, the associated numerical value is approximate.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and to meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance (J-flag) or rejection (R-flag) of the data should be decided by the project team.

Note: Analytical data will report all detections at or above the detection limit (DL) and qualify all results between the DL and limit of quantitation (LOQ) "J" as estimated. All non-detect results will be reported at the LOQ and qualified "U".

Table 11.4 – Direct Contact Human Health Screening Levels in Soil

Analyte	Screening Level Surrogate	Analytical Method [1]	CASRN	Units	Background Value [2]	NMED Table A-1 and Table 6-2 Human Health Screening Levels Direct Contact [3]						EPA-RSL Table Human Health Screening Levels Direct Contact [4]				Lowest Human Health Screening Level Direct Contact [5]	Lowest Human Health Screening Level Direct Contact Source [5]
						Residential		Industrial/ Occupational		Construction Worker		Residential		Industrial			
						cancer	noncancer	cancer	noncancer	cancer	noncancer	cancer adj to $1x10^{-5}$	noncancer HQ=1	cancer adj to $1x10^{-5}$	noncancer HQ=1		
RCRA Metals																	
Arsenic	-	SW6020B	7440-38-2	mg/kg	5.60	7.07	13.0	35.9	208	216	41.2	-	-	-	-	7.07	NMED SSL
Barium	-	SW6020B	7440-39-3	mg/kg	482	NS	15600	NS	255000	NS	4390	-	-	-	-	4390	NMED SSL
Cadmium	-	SW6020B	7440-43-9	mg/kg	0.224	85900	70.5	417000	1110	3610	72.1	-	-	-	-	70.5	NMED SSL
Lead (6)	-	SW6020B	7439-92-1	mg/kg	12.4	NS	NS	NS	NS	NS	NS	NS	200	NS	800	200	EPA RSL
Mercury	-	SW7471B	7439-97-6	mg/kg	0.0300	NS	23.8	NS	112	NS	20.7	-	-	-	-	20.7	NMED SSL
Selenium	-	SW6020B	7782-49-2	mg/kg	0.513	NS	391	NS	6490	NS	1750	-	-	-	-	391	NMED SSL
Silver	-	SW6020B	7440-22-4	mg/kg	0.130	NS	391	NS	6490	NS	1770	-	-	-	-	391	NMED SSL
Total Chromium	-	SW6020B	7440-47-3	mg/kg	18.1	96.6	45200	505	314000	468	134	-	-	-	-	96.6	NMED SSL
Semi-Volatile Organic Compounds																	
2,2-Oxybis(1-chloropropane)	-	SW8270E	108-60-1	mg/kg	N/A	99.3	NS	519	NS	3540	NS	-	-	-	-	99.3	NMED SSL
2,4,5-Trichlorophenol	-	SW8270E	95-95-4	mg/kg	N/A	NS	6160	NS	91600	NS	26900	-	-	-	-	6160	NMED SSL
2,4,6-Trichlorophenol	-	SW8270E	88-06-2	mg/kg	N/A	484	61.6	2330	916	17000	269	-	-	-	-	61.6	NMED SSL
2,4-Dichlorophenol	-	SW8270E	120-83-2	mg/kg	N/A	NS	185	NS	2750	NS	807	-	-	-	-	185	NMED SSL
2,4-Dimethylphenol	-	SW8270E	105-67-9	mg/kg	N/A	NS	1230	NS	18300	NS	5380	-	-	-	-	1230	NMED SSL
2,4-Dinitrophenol	-	SW8270E	51-28-5	mg/kg	N/A	NS	123	NS	1830	NS	538	-	-	-	-	123	NMED SSL
2,4-Dinitrotoluene	-	SW8270E	121-14-2	mg/kg	N/A	17.1	123	82.3	1820	600	536	-	-	-	-	17.1	NMED SSL
2,6-Dinitrotoluene	-	SW8270E	606-20-2	mg/kg	N/A	3.56	18.5	17.2	276	165	80.9	-	-	-	-	3.56	NMED SSL
2-Chloronaphthalene	-	SW8270E	91-58-7	mg/kg	N/A	NS	6260	NS	104000	NS	28300	-	-	-	-	6260	NMED SSL
2-Chlorophenol	-	SW8270E	95-57-8	mg/kg	N/A	NS	391	NS	6490	NS	1770	-	-	-	-	391	NMED SSL
2-Methylphenol	-	SW8270E	95-48-7	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	3200	NS	41000	3200	EPA RSL
2-Nitroaniline	-	SW8270E	88-74-4	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	630	NS	8000	630	EPA RSL
2-Nitrophenol	-	SW8270E	88-75-5	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
3 & 4 Methylphenol	p-cresol	SW8270E	15831-10-4	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	1300	NS	16000	1300	NMED SSL
3,3'-Dichlorobenzidine	-	SW8270E	91-94-1	mg/kg	N/A	11.8	NS	57.0	NS	410	NS	-	-	-	-	11.8	NMED SSL
3-Nitroaniline	4-Nitroaniline	SW8270E	99-09-2	mg/kg	N/A	NS	NS	NS	NS	NS	NS	270	250	1100	3300	250	EPA RSL
4,6-Dinitro-2-Methylphenol	-	SW8270E	534-52-1	mg/kg	N/A	NS	4.93	NS	73.3	NS	21.5	-	-	-	-	4.93	NMED SSL
4-Bromophenyl-phenyl ether	-	SW8270E	101-55-3	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
4-Chloro-3-Methylphenol	-	SW8270E	59-50-7	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	6300	NS	82000	6300	EPA RSL
4-Chloroaniline	-	SW8270E	106-47-8	mg/kg	N/A	NS	NS	NS	NS	NS	NS	27	32	110	410	27	EPA RSL
4-Chlorophenyl-phenyl ether	-	SW8270E	7005-72-3	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
4-Nitroaniline	-	SW8270E	100-01-6	mg/kg	N/A	NS	NS	NS	NS	NS	NS	270	250	1100	3300	250	EPA RSL
4-Nitrophenol	-	SW8270E	100-02-7	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Benzaldehyde	-	SW8270E	100-52-7	mg/kg	N/A	NS	NS	NS	NS	NS	NS	1700	7800	8200	120000	1700	EPA RSL
Bis(2-Chloroethoxy)Methane	-	SW8270E	111-91-1	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	190	NS	2500	190	EPA RSL
Bis(2-Chloroethyl)Ether	Bis(2-Chloroisopropyl)Ether	SW8270E	111-44-4	mg/kg	N/A	3.11	NS	15.7	NS	1.95	NS	-	-	-	-	1.95	NMED SSL

Table 11.4 – Direct Contact Human Health Screening Levels in Soil

Analyte	Screening Level Surrogate	Analytical Method [1]	CASRN	Units	Background Value [2]	NMED Table A-1 and Table 6-2 Human Health Screening Levels Direct Contact [3]						EPA-RSL Table Human Health Screening Levels Direct Contact [4]				Lowest Human Health Screening Level Direct Contact [5]	Lowest Human Health Screening Level Direct Contact Source [5]
						Residential		Industrial/ Occupational		Construction Worker		Residential		Industrial			
						cancer	noncancer	cancer	noncancer	cancer	noncancer	cancer adj to 1x10^{-5}	noncancer HQ=1	cancer adj to 1x10^{-5}	noncancer HQ=1		
Semi-Volatile Organic Compounds (Continued)																	
Bis(2-Ethylhexyl)Phthalate	-	SW8270E	117-81-7	mg/kg	N/A	380	1230	1830	18300	13400	5380	-	-	-	-	380	NMED SSL
Butylbenzylphthalate	-	SW8270E	85-68-7	mg/kg	N/A	NS	NS	NS	NS	NS	NS	2900	13000	12000	160000	2900	EPA RSL
Caprolactam	-	SW8270E	105-60-2	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	31000	NS	400000	31000	EPA RSL
Carbazole	Fluorene	SW8270E	86-74-8	mg/kg	N/A	NS	2320	NS	33700	NS	10000	-	-	-	-	2320	NMED SSL
Dibenzofuran	-	SW8270E	132-64-9	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	78	NS	1200	78.0	EPA RSL
Diethylphthalate	-	SW8270E	84-66-2	mg/kg	N/A	NS	49300	NS	733000	NS	215000	-	-	-	-	49300	NMED SSL
Dimethylphthalate	-	SW8270E	131-11-3	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Di-N-Butylphthalate	-	SW8270E	84-74-2	mg/kg	N/A	NS	6160	NS	91600	NS	26900	-	-	-	-	6160	NMED SSL
Di-n-Octylphthalate	-	SW8270E	117-84-0	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	630	NS	8200	630	EPA RSL
Hexachlorobenzene	-	SW8270E	118-74-1	mg/kg	N/A	3.33	49.3	16.0	733	117	215	-	-	-	-	3.33	NMED SSL
Hexachlorobutadiene	-	SW8270E	87-68-3	mg/kg	N/A	68.3	61.6	52.1	916	2400	269	-	-	-	-	52.1	NMED SSL
Hexachlorocyclopentadiene	-	SW8270E	77-47-4	mg/kg	N/A	68.3	61.6	52.1	916	2400	269	-	-	-	-	52.1	NMED SSL
Hexachloroethane	-	SW8270E	67-72-1	mg/kg	N/A	133	43.1	641	641	4670	188	-	-	-	-	43.1	NMED SSL
Isophorone	-	SW8270E	78-59-1	mg/kg	N/A	5610	12300	27000	183000	198000	53700	-	-	-	-	5610	NMED SSL
Nitrobenzene	-	SW8270E	98-95-3	mg/kg	N/A	60.4	131	293	1540	1350	353	-	-	-	-	60.4	NMED SSL
N-Nitroso-Di-N-Propylamine	-	SW8270E	621-64-7	mg/kg	N/A	NS	NS	NS	NS	NS	NS	0.78	NS	3.3	NS	0.78	EPA RSL
N-Nitrosodiphenylamine	-	SW8270E	86-30-6	mg/kg	N/A	1090	NS	5240	NS	37900	NS	-	-	-	-	1090	NMED SSL
Pentachlorophenol	-	SW8270E	87-86-5	mg/kg	N/A	9.85	234	44.5	3180	346	989	-	-	-	-	9.85	NMED SSL
Phenol	-	SW8270E	108-95-2	mg/kg	N/A	NS	18500	NS	275000	NS	77400	-	-	-	-	18500	NMED SSL
Polycyclic Aromatic Hydrocarbons																	
2-Methylnaphthalene	-	SW8270E	91-57-6	mg/kg	N/A	NS	232	NS	3370	NS	1000	-	-	-	-	232	NMED SSL
Acenaphthene	-	SW8270E	83-32-9	mg/kg	N/A	NS	3480	NS	50500	NS	15100	-	-	-	-	3480	NMED SSL
Acenaphthylene	Pyrene	SW8270E	208-96-8	mg/kg	N/A	NS	1740	NS	25300	NS	7530	-	-	-	-	1740	NMED SSL
Anthracene	-	SW8270E	120-12-7	mg/kg	N/A	NS	17400	NS	253000	NS	75300	-	-	-	-	17400	NMED SSL
Benzo(a)anthracene	-	SW8270E	56-55-3	mg/kg	N/A	1.53	NS	32.3	NS	240	NS	-	-	-	-	1.53	NMED SSL
Benzo(a)pyrene	-	SW8270E	50-32-8	mg/kg	N/A	1.12	17.4	23.6	251	173	15.0	-	-	-	-	1.12	NMED SSL
Benzo(b)fluoranthene	-	SW8270E	205-99-2	mg/kg	N/A	1.53	NS	32.3	NS	240	NS	-	-	-	-	1.53	NMED SSL
Benzo(k)fluoranthene	-	SW8270E	207-08-9	mg/kg	N/A	15.3	NS	323	NS	2310	NS	-	-	-	-	15.3	NMED SSL
Benzo(g,h,i)perylene	Pyrene	SW8270E	191-24-2	mg/kg	N/A	NS	1740	NS	25300	NS	7530	-	-	-	-	1740	NMED SSL
Chrysene	-	SW8270E	218-01-9	mg/kg	N/A	153	NS	3230	NS	23100	NS	-	-	-	-	153	NMED SSL
Dibenz(a,h)anthracene	-	SW8270E	53-70-3	mg/kg	N/A	0.153	NS	3.23	NS	24.0	NS	-	-	-	-	0.153	NMED SSL
Fluoranthene	-	SW8270E	206-44-0	mg/kg	N/A	NS	2320	NS	33700	NS	10000	-	-	-	-	2320	NMED SSL
Fluorene	-	SW8270E	86-73-7	mg/kg	N/A	NS	2320	NS	33700	NS	10000	-	-	-	-	2320	NMED SSL
Indeno(1,2,3-cd)pyrene	-	SW8270E	193-39-5	mg/kg	N/A	1.53	NS	32.3	NS	240	NS	-	-	-	-	1.53	NMED SSL
Naphthalene	-	SW8270E	91-20-3	mg/kg	N/A	22.6	162	108	843	633	159	-	-	-	-	22.6	NMED SSL

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Analyte	Screening Level Surrogate	Analytical Method [1]	CASRN	Units	Background Value [2]	NMED Table A-1 and Table 6-2 Human Health Screening Levels Direct Contact [3]						EPA-RSL Table Human Health Screening Levels Direct Contact [4]				Lowest Human Health Screening Level Direct Contact [5]	Lowest Human Health Screening Level Direct Contact Source [5]
						Residential		Industrial/ Occupational		Construction Worker		Residential		Industrial			
						cancer	noncancer	cancer	noncancer	cancer	noncancer	cancer adj to $1x10^{-5}$	noncancer HQ=1	cancer adj to $1x10^{-5}$	noncancer HQ=1		
Polycyclic Aromatic Hydrocarbons (Continued)																	
Phenanthrene	-	SW8270E	85-01-8	mg/kg	N/A	NS	1850	NS	27500	NS	8070	-	-	-	-	1850	NMED SSL
Pyrene	-	SW8270E	129-00-0	mg/kg	N/A	NS	1740	NS	25300	NS	7530	-	-	-	-	1740	NMED SSL
1-Methylnaphthalene	-	SW8270E SIM	90-12-0	mg/kg	N/A	172	4060	813	58900	6060	17600	-	-	-	-	172	NMED SSL
2-Methylnaphthalene	-	SW8270E SIM	91-57-6	mg/kg	N/A	NS	232	NS	3370	NS	1000	-	-	-	-	232	NMED SSL
Acenaphthene	-	SW8270E SIM	83-32-9	mg/kg	N/A	NS	3480	NS	50500	NS	15100	-	-	-	-	3480	NMED SSL
Acenaphthylene	Pyrene	SW8270E SIM	208-96-8	mg/kg	N/A	NS	1740	NS	25300	NS	7530	-	-	-	-	1740	NMED SSL
Anthracene	-	SW8270E SIM	120-12-7	mg/kg	N/A	NS	17400	NS	253000	NS	75300	-	-	-	-	17400	NMED SSL
Benzo(a)anthracene	-	SW8270E SIM	56-55-3	mg/kg	N/A	1.53	NS	32.3	NS	240	NS	-	-	-	-	1.53	NMED SSL
Benzo(a)pyrene	-	SW8270E SIM	50-32-8	mg/kg	N/A	1.12	17.4	23.6	251	173	15.0	-	-	-	-	1.12	NMED SSL
Benzo(b)fluoranthene	-	SW8270E SIM	205-99-2	mg/kg	N/A	1.53	NS	32.3	NS	240	NS	-	-	-	-	1.53	NMED SSL
Benzo(k)fluoranthene	-	SW8270E SIM	207-08-9	mg/kg	N/A	15.3	NS	323	NS	2310	NS	-	-	-	-	15.3	NMED SSL
Benzo(g,h,i)perylene	Pyrene	SW8270E SIM	191-24-2	mg/kg	N/A	NS	1740	NS	25300	NS	7530	-	-	-	-	1740	NMED SSL
Chrysene	-	SW8270E SIM	218-01-9	mg/kg	N/A	153	NS	3230	NS	23100	NS	-	-	-	-	153	NMED SSL
Dibenz(a,h)anthracene	-	SW8270E SIM	53-70-3	mg/kg	N/A	0.153	NS	3.23	NS	24.0	NS	-	-	-	-	0.153	NMED SSL
Fluoranthene	-	SW8270E SIM	206-44-0	mg/kg	N/A	NS	2320	NS	33700	NS	10000	-	-	-	-	2320	NMED SSL
Fluorene	-	SW8270E SIM	86-73-7	mg/kg	N/A	NS	2320	NS	33700	NS	10000	-	-	-	-	2320	NMED SSL
Indeno(1,2,3-cd)pyrene	-	SW8270E SIM	193-39-5	mg/kg	N/A	1.53	NS	32.3	NS	240	NS	-	-	-	-	1.53	NMED SSL
Naphthalene	-	SW8270E SIM	91-20-3	mg/kg	N/A	22.6	162	108	843	633	159	-	-	-	-	22.6	NMED SSL
Phenanthrene	-	SW8270E SIM	85-01-8	mg/kg	N/A	NS	1850	NS	27500	NS	8070	-	-	-	-	1850	NMED SSL
Pyrene	-	SW8270E SIM	129-00-0	mg/kg	N/A	NS	1740	NS	25300	NS	7530	-	-	-	-	1740	NMED SSL
Volatile Organic Compounds																	
1,1,1,2-Tetrachloroethane	-	SW8260D	630-20-6	mg/kg	N/A	28.1	2350	137	38900	659	10600	-	-	-	-	28.1	NMED SSL
1,1,1-Trichloroethane	-	SW8260D	71-55-6	mg/kg	N/A	NS	14400	NS	72500	NS	13600	-	-	-	-	13600	NMED SSL
1,1,2,2-Tetrachloroethane	-	SW8260D	79-34-5	mg/kg	N/A	7.98	1560	39.4	26000	197	7080	-	-	-	-	7.98	NMED SSL
1,1,2-Trichloroethane	-	SW8260D	79-00-5	mg/kg	N/A	18.8	2.61	92.1	12.4	4300	2.30	-	-	-	-	2.30	NMED SSL
1,1-Dichloroethane	-	SW8260D	75-34-3	mg/kg	N/A	78.6	15600	383	260000	1820	70800	-	-	-	-	78.6	NMED SSL
1,1-Dichloroethene	-	SW8260D	75-35-4	mg/kg	N/A	NS	440	NS	2260	NS	424	-	-	-	-	424	NMED SSL
1,1-Dichloropropene	1,3-Dichloropropene	SW8260D	563-58-6	mg/kg	N/A	29.3	141	146	695	781	130	-	-	-	-	29.3	NMED SSL
1,2,3-Trichlorobenzene	-	SW8260D	87-61-6	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	63	NS	930	63.0	EPA RSL
1,2,3-Trichloropropane	-	SW8260D	96-18-4	mg/kg	N/A	0.0510	7.09	1.21	34.0	8.26	6.31	-	-	-	-	0.0510	NMED SSL
1,2,4-Trichlorobenzene	-	SW8260D	120-82-1	mg/kg	N/A	240	82.9	1250	423	8540	79.1	-	-	-	-	79.1	NMED SSL
1,2,4-Trimethylbenzene	-	SW8260D	95-63-6	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	300	NS	1800	300	EPA RSL
1,2-Dibromo-3-Chloropropane	-	SW8260D	96-12-8	mg/kg	N/A	0.0858	5.88	1.18	41.1	5.53	8.29	-	-	-	-	0.0858	NMED SSL
1,2-Dibromoethane	-	SW8260D	106-93-4	mg/kg	N/A	0.672	135	3.31	738	16.3	140	-	-	-	-	0.672	NMED SSL
1,2-Dichlorobenzene	-	SW8260D	95-50-1	mg/kg	N/A	NS	2150	NS	13000	NS	2500	-	-	-	-	2150	NMED SSL

Table 11.4 – Direct Contact Human Health Screening Levels in Soil

Analyte	Screening Level Surrogate	Analytical Method [1]	CASRN	Units	Background Value [2]	NMED Table A-1 and Table 6-2 Human Health Screening Levels Direct Contact [3]						EPA-RSL Table Human Health Screening Levels Direct Contact [4]				Lowest Human Health Screening Level Direct Contact [5]	Lowest Human Health Screening Level Direct Contact Source [5]
						Residential		Industrial/ Occupational		Construction Worker		Residential		Industrial			
						cancer	noncancer	cancer	noncancer	cancer	noncancer	cancer adj to $1x10^{-5}$	noncancer HQ=1	cancer adj to $1x10^{-5}$	noncancer HQ=1		
Volatile Organic Compounds (Continued)																	
1,2-Dichloroethane	-	SW8260D	107-06-2	mg/kg	N/A	8.32	55.6	40.7	286	195	53.8	-	-	-	-	8.32	NMED SSL
1,2-Dichloropropane	-	SW8260D	78-87-5	mg/kg	N/A	17.8	29.0	86.8	137	415	25.4	-	-	-	-	17.8	NMED SSL
1,3,5-Trimethylbenzene	-	SW8260D	108-67-8	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	270	NS	1500	270	EPA RSL
1,3-Dichloropropane	-	SW8260D	142-28-9	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	1600	NS	23000	1600	EPA RSL
1,3-Dichlorobenzene	1,4-Dichlorobenzene	SW8260D	541-73-1	mg/kg	N/A	1290	5480	6730	90800	45900	24800	-	-	-	-	1290	NMED SSL
1,4-Dichlorobenzene	-	SW8260D	106-46-7	mg/kg	N/A	1290	5480	6730	90800	45900	24800	-	-	-	-	1290	NMED SSL
2,2-Dichloropropane	1,2-Dichloropropane	SW8260D	594-20-7	mg/kg	N/A	17.8	29.0	86.8	137	415	25.4	-	-	-	-	17.8	NMED SSL
2-Butanone (MEK)	-	SW8260D	78-93-3	mg/kg	N/A	NS	37400	NS	411000	NS	91700	-	-	-	-	37400	NMED SSL
2-Chlorotoluene	-	SW8260D	95-49-8	mg/kg	N/A	NS	1560	NS	26000	NS	7080	-	-	-	-	1560	NMED SSL
2-Hexanone	-	SW8260D	591-78-6	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	200	NS	1300	200	EPA RSL
4-Chlorotoluene	-	SW8260D	106-43-4	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	1600	NS	23000	1600	EPA RSL
4-Methyl-2-Pentanone (MIBK)	-	SW8260D	108-10-1	mg/kg	N/A	NS	5810	NS	81600	NS	20200	-	-	-	-	5810	NMED SSL
Acetone	-	SW8260D	67-64-1	mg/kg	N/A	NS	66300	NS	960000	NS	242000	-	-	-	-	66300	NMED SSL
Benzene	-	SW8260D	71-43-2	mg/kg	N/A	17.8	114	87.2	729	423	142	-	-	-	-	17.8	NMED SSL
Bromobenzene	-	SW8260D	108-86-1	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	290	NS	1800	290	EPA RSL
Bromochloromethane	-	SW8260D	74-97-5	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	150	NS	630	150	EPA RSL
Bromodichloromethane	-	SW8260D	75-27-4	mg/kg	N/A	6.19	1560	30.2	26000	143	7080	-	-	-	-	6.19	NMED SSL
Bromoform	-	SW8260D	75-25-2	mg/kg	N/A	674	1230	1760	18300	23700	5380	-	-	-	-	674	NMED SSL
Bromomethane	-	SW8260D	74-83-9	mg/kg	N/A	NS	17.7	NS	94.5	NS	17.9	-	-	-	-	17.7	NMED SSL
Carbon Disulfide	-	SW8260D	75-15-0	mg/kg	N/A	NS	1550	NS	8540	NS	1620	-	-	-	-	1550	NMED SSL
Carbon Tetrachloride	-	SW8260D	56-23-5	mg/kg	N/A	10.7	144	52.5	1020	252	202	-	-	-	-	10.7	NMED SSL
Chlorobenzene	-	SW8260D	108-90-7	mg/kg	N/A	NS	378	NS	2160	NS	412	-	-	-	-	378	NMED SSL
Chloroethane	-	SW8260D	75-00-3	mg/kg	N/A	NS	19000	NS	89500	NS	16600	-	-	-	-	16600	NMED SSL
Chloroform	-	SW8260D	67-66-3	mg/kg	N/A	5.90	306	28.7	2000	134	391	-	-	-	-	5.90	NMED SSL
Chloromethane	-	SW8260D	74-87-3	mg/kg	N/A	41.1	268	201	1260	956	235	-	-	-	-	41.1	NMED SSL
cis-1,2-Dichloroethene	-	SW8260D	156-59-2	mg/kg	N/A	NS	156	NS	2600	NS	708	-	-	-	-	156	NMED SSL
cis-1,3-Dichloropropene	1,3-Dichloropropene	SW8260D	10061-01-5	mg/kg	N/A	29.3	141	146	695	781	130	-	-	-	-	29.3	NMED SSL
Dibromochloromethane	-	SW8260D	124-48-1	mg/kg	N/A	13.9	1230	67.4	18300	340	5380	-	-	-	-	13.9	NMED SSL
Dibromomethane	-	SW8260D	74-95-3	mg/kg	N/A	NS	57.9	NS	288	NS	53.9	-	-	-	-	53.9	NMED SSL
Dichlorodifluoromethane	-	SW8260D	75-71-8	mg/kg	N/A	NS	182	NS	865	NS	161	-	-	-	-	161	NMED SSL
Ethylbenzene	-	SW8260D	100-41-4	mg/kg	N/A	75.1	3930	368	29000	1770	5800	-	-	-	-	75.1	NMED SSL
Hexachlorobutadiene	-	SW8260D	87-68-3	mg/kg	N/A	68.3	61.6	52.1	916	2400	269	-	-	-	-	52.1	NMED SSL
Isopropylbenzene	-	SW8260D	98-82-8	mg/kg	N/A	NS	2360	NS	14200	NS	2740	-	-	-	-	2360	NMED SSL
Methyl acetate	-	SW8260D	79-20-9	mg/kg	N/A	NS	78200	NS	1300000	NS	354000	-	-	-	-	78200	NMED SSL
m,p-Xylenes	Xylenes	SW8260D	179601-23-1	mg/kg	N/A	NS	871	NS	4280	NS	798	-	-	-	-	798	EPA RSL

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						Residential		Industrial/ Occupational		Construction Worker		Residential		Industrial			
						cancer	noncancer	cancer	noncancer	cancer	noncancer	cancer adj to $1x10^{-5}$	noncancer HQ=1	cancer adj to $1x10^{-5}$	noncancer HQ=1		
Volatile Organic Compounds (Continued)																	
Methyl Tert-Butyl Ether	-	SW8260D	1634-04-4	mg/kg	N/A	975	37800	4820	178000	24200	33100	-	-	-	-	975	NMED SSL
Methylene Chloride	-	SW8260D	75-09-2	mg/kg	N/A	766	409	14400	5130	89600	1210	-	-	-	-	409	NMED SSL
Naphthalene	-	SW8260D	91-20-3	mg/kg	N/A	22.6	162	108	843	633	159	-	-	-	-	22.6	NMED SSL
n-Butylbenzene	-	SW8260D	104-51-8	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	3900	NS	58000	3900	EPA RSL
n-Propylbenzene	-	SW8260D	103-65-1	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	3800	NS	24000	3800	EPA RSL
o-Xylene	-	SW8260D	95-47-6	mg/kg	N/A	NS	805	NS	3940	NS	736	-	-	-	-	736	NMED SSL
4-Isopropyltoluene	Isopropylbenzene	SW8260D	99-87-6	mg/kg	N/A	NS	2360	NS	14200	NS	2740	-	-	-	-	2360	NMED SSL
Sec-Butylbenzene	-	SW8260D	135-98-8	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	7800	NS	120000	7800	EPA RSL
Styrene	-	SW8260D	100-42-5	mg/kg	N/A	NS	7260	NS	51300	NS	10200	-	-	-	-	7260	NMED SSL
Tert-Butylbenzene	-	SW8260D	98-06-6	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	7800	NS	120000	7800	EPA RSL
Tetrachloroethene	-	SW8260D	127-18-4	mg/kg	N/A	337	111	1650	629	7910	120	-	-	-	-	111	NMED SSL
Toluene	-	SW8260D	108-88-3	mg/kg	N/A	NS	5230	NS	61300	NS	14000	-	-	-	-	5230	NMED SSL
Trans-1,2-Dichloroethene	-	SW8260D	156-60-5	mg/kg	N/A	NS	210	NS	1100	NS	206	-	-	-	-	206	NMED SSL
Trans-1,3-Dichloropropene	1,3-Dichloropropene	SW8260D	10061-02-6	mg/kg	N/A	29.3	141	146	695	781	130	-	-	-	-	29.3	NMED SSL
Trichloroethene	-	SW8260D	79-01-6	mg/kg	N/A	15.5	6.77	112	36.5	5370	6.90	-	-	-	-	6.77	NMED SSL
Trichlorofluoromethane	-	SW8260D	75-69-4	mg/kg	N/A	NS	1230	NS	6030	NS	1130	-	-	-	-	1130	NMED SSL
Vinyl Chloride	-	SW8260D	75-01-4	mg/kg	N/A	0.742	113	28.4	816	161	162	-	-	-	-	0.742	NMED SSL
Explosives																	
1,3,5-Trinitrobenzene	-	SW8330B	99-35-4	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	2200	NS	32000	2200	EPA RSL
1,3-Dinitrobenzene	-	SW8330B	99-65-0	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	6.3	NS	82	6.30	EPA RSL
2,4-Dinitrotoluene	-	SW8330B	121-14-2	mg/kg	N/A	17.1	123	82.3	1820	600	536	-	-	-	-	17.1	NMED SSL
2,6-Dinitrotoluene	-	SW8330B	606-20-2	mg/kg	N/A	3.56	18.5	17.2	276	165	80.9	-	-	-	-	3.56	NMED SSL
2,4,6-Trinitrotoluene (TNT)	-	SW8330B	118-96-7	mg/kg	N/A	211	36.0	1070	573	7500	161	-	-	-	-	36.0	NMED SSL
2-Amino-4,6-Dinitrotoluene	-	SW8330B	35572-78-2	mg/kg	N/A	NS	7.70	NS	127	NS	17.3	-	-	-	-	7.70	NMED SSL
2-Nitrotoluene	-	SW8330B	88-72-2	mg/kg	N/A	31.6	70.4	165	1170	1130	319	-	-	-	-	31.6	NMED SSL
3-Nitrotoluene	-	SW8330B	99-08-1	mg/kg	N/A	NS	6.16	NS	91.6	NS	26.9	-	-	-	-	6.16	NMED SSL
4-Amino-2,6-Dinitrotoluene	-	SW8330B	19406-51-0	mg/kg	N/A	NS	7.64	NS	125	NS	17.3	-	-	-	-	7.64	NMED SSL
4-Nitrotoluene	-	SW8330B	99-99-0	mg/kg	N/A	333	247	1600	3670	11800	1080	-	-	-	-	247	NMED SSL
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	-	SW8330B	121-82-4	mg/kg	N/A	83.1	301	428	4890	2960	1350	-	-	-	-	83.1	NMED SSL
Methyl-2,4,6-trinitrophenylnitramine (Tetryl)	-	SW8330B	479-45-8	mg/kg	N/A	NS	156	NS	2590	NS	706	-	-	-	-	156	NMED SSL
Nitrobenzene	-	SW8330B	98-95-3	mg/kg	N/A	60.4	131	293	1540	1350	353	-	-	-	-	60.4	NMED SSL

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						Residential		Industrial/ Occupational		Construction Worker		Residential		Industrial			
						cancer	noncancer	cancer	noncancer	cancer	noncancer	cancer adj to $1x10^{-5}$	noncancer HQ=1	cancer adj to $1x10^{-5}$	noncancer HQ=1		
Explosives (Continued)																	
Nitroglycerin	-	SW8330B	55-63-0	mg/kg	N/A	313	6.16	1510	91.6	11100	26.9	-	-	-	-	6.16	NMED SSL
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	-	SW8330B	2691-41-0	mg/kg	N/A	NS	3850	NS	63300	NS	17400	-	-	-	-	3850	NMED SSL
Pentaerythritol Tetranitrate (PETN)	-	SW8330B	78-11-5	mg/kg	N/A	NS	NS	NS	NS	NS	NS	1300	570	5300	7400	570	EPA RSL
Total Petroleum Hydrocarbons																	
DRO (C10-C28)	-	SW8015D	68334-30-5	mg/kg	N/A	NS	1000	NS	3000	NS	3000	-	-	-	-	1000	NMED SSL
DRO Extended (C10-C36)	-	SW8015D	68334-30-5	mg/kg	N/A	NS	1000	NS	3000	NS	3000	-	-	-	-	1000	NMED SSL
RRO/ORO (C20-C38)	-	SW8015D	21274-30-0	mg/kg	N/A	NS	1000	NS	3000	NS	3000	-	-	-	-	1000	NMED SSL
PCBs																	
Aroclor 1016	-	SW8082A	12674-11-2	mg/kg	N/A	69.6	3.98	304	57.4	2440	17.2	-	-	-	-	3.98	NMED SSL
Aroclor 1221	-	SW8082A	11104-28-2	mg/kg	N/A	1.81	NS	8.57	NS	55.3	NS	-	-	-	-	1.81	NMED SSL
Aroclor 1232	-	SW8082A	11141-16-5	mg/kg	N/A	1.86	NS	8.82	NS	57.6	NS	-	-	-	-	1.86	NMED SSL
Aroclor 1242	-	SW8082A	53469-21-9	mg/kg	N/A	2.43	NS	10.9	NS	85.3	NS	-	-	-	-	2.43	NMED SSL
Aroclor 1248	-	SW8082A	12672-29-6	mg/kg	N/A	2.43	NS	10.7	NS	85.3	NS	-	-	-	-	2.43	NMED SSL
Aroclor 1254	-	SW8082A	11097-69-1	mg/kg	N/A	2.43	1.14	11.0	16.4	85.3	4.91	-	-	-	-	1.14	NMED SSL
Aroclor 1260	-	SW8082A	11096-82-5	mg/kg	N/A	2.43	NS	11.1	NS	85.3	NS	-	-	-	-	2.43	NMED SSL
Aroclor 1262	-	SW8082A	37324-23-5	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Aroclor 1268	-	SW8082A	11100-14-4	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Chlorinated Pesticides																	
alpha-BHC	-	SW8081B	319-84-6	mg/kg	N/A	0.845	493	4.07	7330	29.7	2150	-	-	-	-	0.845	NMED SSL
beta-BHC	-	SW8081B	319-85-7	mg/kg	N/A	2.96	NS	14.3	NS	104	NS	-	-	-	-	2.96	NMED SSL
delta-BHC	beta-BHC	SW8081B	319-86-8	mg/kg	N/A	2.96	NS	14.3	NS	104	NS	-	-	-	-	2.96	NMED SSL
gamma-BHC (Lindane)	-	SW8081B	58-89-9	mg/kg	N/A	5.63	21.2	28.3	334	198	94.3	-	-	-	-	5.63	NMED SSL
Heptachlor	-	SW8081B	76-44-8	mg/kg	N/A	1.18	30.8	5.70	458	41.5	135	-	-	-	-	1.18	NMED SSL
Aldrin	-	SW8081B	309-00-2	mg/kg	N/A	0.311	1.85	1.50	27.5	10.9	8.07	-	-	-	-	0.311	NMED SSL
Heptachlor Epoxide	-	SW8081B	1024-57-3	mg/kg	N/A	NS	NS	NS	NS	NS	NS	0.7	1.0	3.3	15	0.7	EPA RSL
Endosulfan I	Endosulfan	SW8081B	959-98-8	mg/kg	N/A	NS	370	NS	5500	NS	1610	-	-	-	-	370	NMED SSL
Endosulfan II	Endosulfan	SW8081B	33213-65-9	mg/kg	N/A	NS	370	NS	5500	NS	1610	-	-	-	-	370	NMED SSL
Dieldrin	-	SW8081B	60-57-1	mg/kg	N/A	0.333	3.08	1.60	45.8	11.7	13.5	-	-	-	-	0.333	NMED SSL
4,4'-DDD	-	SW8081B	72-54-8	mg/kg	N/A	22.2	NS	107	NS	778	NS	-	-	-	-	22.2	NMED SSL
4,4'-DDE	-	SW8081B	72-55-9	mg/kg	N/A	15.7	NS	75.5	NS	549	NS	-	-	-	-	15.7	NMED SSL
4,4'-DDT	-	SW8081B	50-29-3	mg/kg	N/A	18.7	36.2	95.0	577	659	162	-	-	-	-	18.7	NMED SSL
Endrin	-	SW8081B	72-20-8	mg/kg	N/A	NS	18.5	NS	275	NS	80.7	-	-	-	-	18.5	NMED SSL
Endrin Ketone		SW8081B	53494-70-5	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Endosulfan sulfate	Endosulfan	SW8081B	1031-07-8	mg/kg	N/A	NS	370	NS	5500	NS	1610	-	-	-	-	370	NMED SSL
Methoxychlor	-	SW8081B	72-43-5	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	320	NS	4100	320	EPA RSL

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						Residential		Industrial/ Occupational		Construction Worker		Residential		Industrial			
						cancer	noncancer	cancer	noncancer	cancer	noncancer	cancer adj to $1x10^{-5}$	noncancer HQ=1	cancer adj to $1x10^{-5}$	noncancer HQ=1		
Chlorinated Pesticides (Continued)																	
Endrin aldehyde	Endrin	SW8081B	7421-93-4	mg/kg	N/A	NS	18.5	NS	275	NS	80.7	-	-	-	-	18.5	NMED SSL
alpha-Chlordane	Chlordane	SW8081B	5103-71-9	mg/kg	N/A	17.7	35.3	89.0	556	623	153	-	-	-	-	17.7	NMED SSL
gamma-Chlordane	Chlordane	SW8081B	5103-74-2	mg/kg	N/A	17.7	35.3	89.0	556	623	153	-	-	-	-	17.7	NMED SSL
Toxaphene		SW8081B	8001-35-2	mg/kg	N/A	4.84	NS	23.3	NS	170	NS	-	-	-	-	4.84	NMED SSL
Anions																	
Nitrate as N	-	SW9056A	14797-55-8	mg/kg	N/A	NS	125000	NS	2080000	NS	566000	-	-	-	-	125000	NMED SSL
Nitrite as N	-	SW9056A	14797-65-0	mg/kg	N/A	NS	7820	NS	130000	NS	35400	-	-	-	-	7820	NMED SSL
Bromide	-	SW9056A	24959-67-9	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Chloride	-	SW9056A	16887-00-6	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Fluoride	-	SW9056A	16984-48-8	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	3100	NS	47000	3100	EPA RSL
Sulfate	-	SW9056A	14808-79-8	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Perchlorate																	
Perchlorate	-	SW6850	14797-73-0	mg/kg	N/A	NS	54.8	NS	908	NS	248	-	-	-	-	54.8	NMED SSL
Dioxins/Furans																	
1,2,3,4,6,7,8-HpCDD	-	SW8290	35822-46-9	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
1,2,3,4,6,7,8-HpCDF	-	SW8290	67562-39-4	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
1,2,3,4,7,8,9-HpCDF	-	SW8290	55673-89-7	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
1,2,3,4,7,8-HxCDD	-	SW8290	39227-28-6	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
1,2,3,4,7,8-HxCDF	-	SW8290	70648-26-9	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
1,2,3,6,7,8-HxCDD	-	SW8290	57653-85-7	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
1,2,3,6,7,8-HxCDF	-	SW8290	57117-44-9	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
1,2,3,7,8,9-HxCDD	-	SW8290	19408-74-3	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
1,2,3,7,8,9-HxCDF	-	SW8290	72918-21-9	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
1,2,3,7,8-PeCDD	-	SW8290	40321-76-4	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
1,2,3,7,8-PeCDF	-	SW8290	57117-41-6	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
2,3,4,6,7,8-HxCDF	-	SW8290	60851-34-5	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
2,3,4,7,8-PeCDF	-	SW8290	57117-31-4	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
2,3,7,8-TCDD	-	SW8290	1746-01-6	mg/kg	N/A	0.000049	0.0000506	0.000238	0.000808	0.00172	0.000226	-	-	-	-	0.000049	NMED SSL
2,3,7,8-TCDF	-	SW8290	51207-31-9	mg/kg	N/A	0.000490	NS	0.00243	NS	0.0172	NS	-	-	-	-	0.000490	NMED SSL
OCDD	-	SW8290	3268-87-9	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
OCDF	-	SW8290	39001-02-0	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	

Table 11.4 – Direct Contact Human Health Screening Levels in Soil

Analyte	Screening Level Surrogate	Analytical Method [1]	CASRN	Units	Background Value [2]	NMED Table A-1 and Table 6-2 Human Health Screening Levels Direct Contact [3]						EPA-RSL Table Human Health Screening Levels Direct Contact [4]				Lowest Human Health Screening Level Direct Contact [5]	Lowest Human Health Screening Level Direct Contact Source [5]
						Residential		Industrial/ Occupational		Construction Worker		Residential		Industrial			
						cancer	noncancer	cancer	noncancer	cancer	noncancer	cancer adj to 1x10^{-5}	noncancer HQ=1	cancer adj to 1x10^{-5}	noncancer HQ=1		

Notes:
1. Analytical Method - EPA Test Methods for Evaluating Solid Waste latest edition (the most current version of each method the laboratory is accredited to will be used).
2. Selected FWDA background values are presented in Table 8-1 from *Soil Background Study and Data Evaluation Report* (Shaw, 2010), except arsenic and antimony:
   - The arsenic background reference value is 5.6 mg/kg per Evaluation of Background Levels for Arsenic in Soil (NMED, 2013b). If the maximum arsenic concentration is greater than 5.6 mg/kg, then the range of arsenic concentrations in the sample data set is to be compared to the range of arsenic concentrations in the site-specific background data set (0.2 mg/kg to 11.2 mg/kg).
   - The antimony background level of 0.23 mg/kg is from soil unit 350ss as presented in Table 4-1 of the *Phase 2 Soil Background Report* (USACE, 2013).
3. NMED *Risk Assessment Guidance for Site Investigations and Remediation* , November 2022 Revised (Appendix A, Table A-1, residential, commercial/industrial, construction worker).
4. USEPA RSL Summary Table (TR=1E-06, HQ=1), November 2024 (resident soil and industrial soil). The RSLs for carcinogenic analytes are adjusted to a TR=1E-05. Provided for analytes without a NMED SSL.
5. The lesser of the NMED screening levels for residents, industrial/occupational workers, and construction workers (or EPA RSL (target excess cancer risk level of 1 x 10-5) if there is no NMED screening level. The most recent screening levels published by NMED and USEPA at the time the risk evaluation is conducted will be used in the risk evaluation.
6. Lead human health screening levels appear in the non-cancer column, but the health effects of lead are not correlated with the typical carcinogenic or non-carcinogenic dose-based toxicity values that characterize other chemicals. Instead, the screening level for lead is based on a modeled concentration in soil that results in an acceptable blood lead level protective of adverse developmental health effects (USEPA, 2024).

Acronyms and Abbreviations:
CASRN = Chemical Abstracts Service Registry Number
DAF = Dilution attenuation factor
DRO = Diesel-range organics
EPA = United States Environmental Protection Agency
FWDA = Fort Wingate Depot Activity
HQ = Hazard quotient
MCL = Maximum contaminant level
mg/kg = Milligram per kilogram
N/A = Not applicable
NMED = New Mexico Environment Department
NMGW = New Mexico groundwater
NS = No standard
RCRA = Resource Conservation and Recovery Act
RSL = Regional screening level
SIM = Selected ion mode
SL-SSL = soil leachate-based SSL
SSL = Soil screening level

Table 11.5 – Human Health Soil to Groundwater Screening Levels

Analyte	Screening Level Surrogate	Analytical Method [1]	CASRN	Units	Background Value [2]	Human Health Screening Levels - Groundwater Protection			Selected Human Health Screening Level - Groundwater Protection [5]	Selected Human Health Screening Level - Groundwater Protection Source [5]
						NMED Table A-3 and Table 6-4 Risk-based SSL [3]	NMED Table A-3 NMGW/MCL based SSL [3]	EPA-RSL Calculator Risk-based SSL [4]		
						DAF = 20	DAF = 20	adjusted to DAF = 20		
RCRA Metals										
Arsenic	-	SW6020B	7440-38-2	mg/kg	5.60	0.499	5.83	-	5.83	NMED SSL
Barium	-	SW6020B	7440-39-3	mg/kg	482	2700	1650	-	2700	NMED SSL
Cadmium	-	SW6020B	7440-43-9	mg/kg	0.224	9.39	7.52	-	9.39	NMED SSL
Lead (6)	-	SW6020B	7439-92-1	mg/kg	12.4	NS	270	-	270	NMED SSL
Mercury	-	SW7471B	7439-97-6	mg/kg	0.0300	0.654	2.09	-	2.09	NMED SSL
Selenium	-	SW6020B	7782-49-2	mg/kg	0.513	10.2	5.17	-	10.2	NMED SSL
Silver	-	SW6020B	7440-22-4	mg/kg	0.130	13.8	NS	-	13.8	NMED SSL
Total Chromium	-	SW6020B	7440-47-3	mg/kg	18.1	205000	3600	-	205000	NMED SSL
Semi-Volatile Organic Compounds										
2,2-Oxybis(1-chloropropane)	-	SW8270E	108-60-1	mg/kg	N/A	0.0475	NS	-	0.0475	NMED SSL
2,4,5-Trichlorophenol	-	SW8270E	95-95-4	mg/kg	N/A	66.2	NS	-	66.2	NMED SSL
2,4,6-Trichlorophenol	-	SW8270E	88-06-2	mg/kg	N/A	0.674	NS	-	0.674	NMED SSL
2,4-Dichlorophenol	-	SW8270E	120-83-2	mg/kg	N/A	0.825	NS	-	0.825	NMED SSL
2,4-Dimethylphenol	-	SW8270E	105-67-9	mg/kg	N/A	6.45	NS	-	6.45	NMED SSL
2,4-Dinitrophenol	-	SW8270E	51-28-5	mg/kg	N/A	0.669	NS	-	0.669	NMED SSL
2,4-Dinitrotoluene	-	SW8270E	121-14-2	mg/kg	N/A	0.0492	NS	-	0.0492	NMED SSL
2,6-Dinitrotoluene	-	SW8270E	606-20-2	mg/kg	N/A	0.0102	NS	-	0.0102	NMED SSL
2-Chloronaphthalene	-	SW8270E	91-58-7	mg/kg	N/A	57.0	NS	-	57.0	NMED SSL
2-Chlorophenol	-	SW8270E	95-57-8	mg/kg	N/A	1.15	NS	-	1.15	NMED SSL
2-Methylphenol	-	SW8270E	95-48-7	mg/kg	N/A	NS	NS	15.1	15.1	EPA SSL
2-Nitroaniline	-	SW8270E	88-74-4	mg/kg	N/A	NS	NS	1.60	1.60	EPA SSL
2-Nitrophenol	-	SW8270E	88-75-5	mg/kg	N/A	NS	NS	NS	NS	
3 & 4 Methylphenol	p-cresol	SW8270E	15831-10-4	mg/kg	N/A	NS	NS	5.94	5.94	EPA SSL
3,3'-Dichlorobenzidine	-	SW8270E	91-94-1	mg/kg	N/A	0.124	NS	-	0.124	NMED SSL
3-Nitroaniline	4-Nitroaniline	SW8270E	99-09-2	mg/kg	N/A	NS	NS	0.316	0.316	EPA SSL
4,6-Dinitro-2-Methylphenol	-	SW8270E	534-52-1	mg/kg	N/A	0.0398	NS	-	0.0398	NMED SSL
4-Bromophenyl-phenyl ether	-	SW8270E	101-55-3	mg/kg	N/A	NS	NS	NS	NS	
4-Chloro-3-Methylphenol	-	SW8270E	59-50-7	mg/kg	N/A	NS	NS	34.3	34.3	EPA SSL
4-Chloroaniline	-	SW8270E	106-47-8	mg/kg	N/A	NS	NS	0.0311	0.0311	EPA SSL
4-Chlorophenyl-phenyl ether	-	SW8270E	7005-72-3	mg/kg	N/A	NS	NS	NS	NS	
4-Nitroaniline	-	SW8270E	100-01-6	mg/kg	N/A	NS	NS	0.316	0.316	EPA SSL
4-Nitrophenol	-	SW8270E	100-02-7	mg/kg	N/A	NS	NS	NS	NS	
Benzaldehyde	-	SW8270E	100-52-7	mg/kg	N/A	NS	NS	0.829	0.829	EPA SSL
Bis(2-Chloroethoxy)Methane	-	SW8270E	111-91-1	mg/kg	N/A	NS	NS	0.270	0.270	EPA SSL
Bis(2-Chloroethyl)Ether	Bis(2-Chloroisopropyl)Ether	SW8270E	111-44-4	mg/kg	N/A	0.000605	NS	-	0.000605	NMED SSL
Bis(2-Ethylhexyl)Phthalate	-	SW8270E	117-81-7	mg/kg	N/A	200	21.5	-	200	NMED SSL

Table 11.5 – Human Health Soil to Groundwater Screening Levels

Analyte	Screening Level Surrogate	Analytical Method [1]	CASRN	Units	Background Value [2]	Human Health Screening Levels - Groundwater Protection			Selected Human Health Screening Level - Groundwater Protection [5]	Selected Human Health Screening Level - Groundwater Protection Source [5]
						NMED Table A-3 and Table 6-4 Risk-based SSL [3]	NMED Table A-3 NMGW/MCL based SSL [3]	EPA-RSL Calculator Risk-based SSL [4]		
						DAF = 20	DAF = 20	adjusted to DAF = 20		
Semi-Volatile Organic Compounds (Continued)										
Butylbenzylphthalate	-	SW8270E	85-68-7	mg/kg	N/A	NS	NS	47.3	47.3	EPA SSL
Caprolactam	-	SW8270E	105-60-2	mg/kg	N/A	NS	NS	49.4	49.4	EPA SSL
Carbazole	Fluorene	SW8270E	86-74-8	mg/kg	N/A	80.0	NS	-	80.0	NMED SSL
Dibenzofuran	-	SW8270E	132-64-9	mg/kg	N/A	NS	NS	2.91	2.91	EPA SSL
Diethylphthalate	-	SW8270E	84-66-2	mg/kg	N/A	97.9	NS	-	97.9	NMED SSL
Dimethylphthalate	-	SW8270E	131-11-3	mg/kg	N/A	NS	NS	NS	NS	
Di-N-Butylphthalate	-	SW8270E	84-74-2	mg/kg	N/A	33.8	NS	-	33.8	NMED SSL
Di-n-Octylphthalate	-	SW8270E	117-84-0	mg/kg	N/A	NS	NS	1,130	1,130	EPA SSL
Hexachlorobenzene	-	SW8270E	118-74-1	mg/kg	N/A	0.0185	0.189	-	0.189	NMED SSL
Hexachlorobutadiene	-	SW8270E	87-68-3	mg/kg	N/A	0.0413	NS	-	0.0413	NMED SSL
Hexachlorocyclopentadiene	-	SW8270E	77-47-4	mg/kg	N/A	0.0413	NS	-	0.0413	NMED SSL
Hexachloroethane	-	SW8270E	67-72-1	mg/kg	N/A	0.0320	NS	-	0.0320	NMED SSL
Isophorone	-	SW8270E	78-59-1	mg/kg	N/A	4.23	NS	-	4.23	NMED SSL
Nitrobenzene	-	SW8270E	98-95-3	mg/kg	N/A	0.0144	NS	-	0.0144	NMED SSL
N-Nitroso-Di-N-Propylamine	-	SW8270E	621-64-7	mg/kg	N/A	NS	NS	0.00162	0.00162	EPA SSL
N-Nitrosodiphenylamine	-	SW8270E	86-30-6	mg/kg	N/A	10.0	NS	-	10.0	NMED SSL
Pentachlorophenol	-	SW8270E	87-86-5	mg/kg	N/A	0.0629	0.152	-	0.152	NMED SSL
Phenol	-	SW8270E	108-95-2	mg/kg	N/A	52.3	NS	-	52.3	NMED SSL
Polycyclic Aromatic Hydrocarbons										
2-Methylnaphthalene	-	SW8270E	91-57-6	mg/kg	N/A	2.76	NS	-	2.76	NMED SSL
Acenaphthene	-	SW8270E	83-32-9	mg/kg	N/A	82.5	0.0309	-	82.5	NMED SSL
Acenaphthylene	Pyrene	SW8270E	208-96-8	mg/kg	N/A	192	NS	-	192	NMED SSL
Anthracene	-	SW8270E	120-12-7	mg/kg	N/A	851	NS	-	851	NMED SSL
Benzo(a)anthracene	-	SW8270E	56-55-3	mg/kg	N/A	0.637	NS	-	0.637	NMED SSL
Benzo(a)pyrene	-	SW8270E	50-32-8	mg/kg	N/A	4.42	3.53	-	4.42	NMED SSL
Benzo(b)fluoranthene	-	SW8270E	205-99-2	mg/kg	N/A	6.17	NS	-	6.17	NMED SSL
Benzo(k)fluoranthene	-	SW8270E	207-08-9	mg/kg	N/A	60.5	NS	-	60.5	NMED SSL
Benzo(g,h,i)perylene	Pyrene	SW8270E	191-24-2	mg/kg	N/A	192	NS	-	192	NMED SSL
Chrysene	-	SW8270E	218-01-9	mg/kg	N/A	186	NS	-	186	NMED SSL
Dibenz(a,h)anthracene	-	SW8270E	53-70-3	mg/kg	N/A	1.97	NS	-	1.97	NMED SSL
Fluoranthene	-	SW8270E	206-44-0	mg/kg	N/A	1340	NS	-	1340	NMED SSL
Fluorene	-	SW8270E	86-73-7	mg/kg	N/A	80.0	NS	-	80.0	NMED SSL
Indeno(1,2,3-cd)pyrene	-	SW8270E	193-39-5	mg/kg	N/A	20.1	NS	-	20.1	NMED SSL
Naphthalene	-	SW8270E	91-20-3	mg/kg	N/A	0.0583	NS	-	0.0583	NMED SSL
Phenanthrene	-	SW8270E	85-01-8	mg/kg	N/A	85.9	NS	-	85.9	NMED SSL
Pyrene	-	SW8270E	129-00-0	mg/kg	N/A	192	NS	-	192	NMED SSL

Table 11.5 – Human Health Soil to Groundwater Screening Levels

Analyte	Screening Level Surrogate	Analytical Method [1]	CASRN	Units	Background Value [2]	Human Health Screening Levels - Groundwater Protection			Selected Human Health Screening Level - Groundwater Protection [5]	Selected Human Health Screening Level - Groundwater Protection Source [5]
						NMED Table A-3 and Table 6-4 Risk-based SSL [3]	NMED Table A-3 NMGW/MCL based SSL [3]	EPA-RSL Calculator Risk-based SSL [4]		
						DAF = 20	DAF = 20	adjusted to DAF = 20		
Polycyclic Aromatic Hydrocarbons (Continued)										
1-Methylnaphthalene	-	SW8270E SIM	90-12-0	mg/kg	N/A	0.893	NS	-	0.893	NMED SSL
2-Methylnaphthalene	-	SW8270E SIM	91-57-6	mg/kg	N/A	2.76	NS	-	2.76	NMED SSL
Acenaphthene	-	SW8270E SIM	83-32-9	mg/kg	N/A	82.5	0.0309	-	82.5	NMED SSL
Acenaphthylene	Pyrene	SW8270E SIM	208-96-8	mg/kg	N/A	192	NS	-	192	NMED SSL
Anthracene	-	SW8270E SIM	120-12-7	mg/kg	N/A	851	NS	-	851	NMED SSL
Benzo(a)anthracene	-	SW8270E SIM	56-55-3	mg/kg	N/A	0.637	NS	-	0.637	NMED SSL
Benzo(a)pyrene	-	SW8270E SIM	50-32-8	mg/kg	N/A	4.42	3.53	-	4.42	NMED SSL
Benzo(b)fluoranthene	-	SW8270E SIM	205-99-2	mg/kg	N/A	6.17	NS	-	6.17	NMED SSL
Benzo(k)fluoranthene	-	SW8270E SIM	207-08-9	mg/kg	N/A	60.5	NS	-	60.5	NMED SSL
Benzo(g,h,i)perylene	Pyrene	SW8270E SIM	191-24-2	mg/kg	N/A	192	NS	-	192	NMED SSL
Chrysene	-	SW8270E SIM	218-01-9	mg/kg	N/A	186	NS	-	186	NMED SSL
Dibenz(a,h)anthracene	-	SW8270E SIM	53-70-3	mg/kg	N/A	1.97	NS	-	1.97	NMED SSL
Fluoranthene	-	SW8270E SIM	206-44-0	mg/kg	N/A	1340	NS	-	1340	NMED SSL
Fluorene	-	SW8270E SIM	86-73-7	mg/kg	N/A	80.0	NS	-	80.0	NMED SSL
Indeno(1,2,3-cd)pyrene	-	SW8270E SIM	193-39-5	mg/kg	N/A	20.1	NS	-	20.1	NMED SSL
Naphthalene	-	SW8270E SIM	91-20-3	mg/kg	N/A	0.0583	NS	-	0.0583	NMED SSL
Phenanthrene	-	SW8270E SIM	85-01-8	mg/kg	N/A	85.9	NS	-	85.9	NMED SSL
Pyrene	-	SW8270E SIM	129-00-0	mg/kg	N/A	192	NS	-	192	NMED SSL
Volatile Organic Compounds										
1,1,1,2-Tetrachloroethane	-	SW8260D	630-20-6	mg/kg	N/A	0.0360	NS	-	0.0360	NMED SSL
1,1,1-Trichloroethane	-	SW8260D	71-55-6	mg/kg	N/A	51.1	1.28	-	51.1	NMED SSL
1,1,2,2-Tetrachloroethane	-	SW8260D	79-34-5	mg/kg	N/A	0.00481	NS	-	0.00481	NMED SSL
1,1,2-Trichloroethane	-	SW8260D	79-00-5	mg/kg	N/A	0.00223	0.0268	-	0.0268	NMED SSL
1,1-Dichloroethane	-	SW8260D	75-34-3	mg/kg	N/A	0.136	NS	-	0.136	NMED SSL
1,1-Dichloroethene	-	SW8260D	75-35-4	mg/kg	N/A	1.95	0.0479	-	1.95	NMED SSL
1,1-Dichloropropene	1,3-Dichloropropene	SW8260D	563-58-6	mg/kg	N/A	0.0281	NS	-	0.0281	NMED SSL
1,2,3-Trichlorobenzene	-	SW8260D	87-61-6	mg/kg	N/A	NS	NS	0.418	0.418	EPA SSL
1,2,3-Trichloropropane	-	SW8260D	96-18-4	mg/kg	N/A	0.0000582	NS	-	0.0000582	NMED SSL
1,2,4-Trichlorobenzene	-	SW8260D	120-82-1	mg/kg	N/A	0.176	3.10	-	3.10	NMED SSL
1,2,4-Trimethylbenzene	-	SW8260D	95-63-6	mg/kg	N/A	NS	NS	1.62	1.62	EPA SSL
1,2-Dibromo-3-Chloropropane	-	SW8260D	96-12-8	mg/kg	N/A	0.0000233	0.00139	-	0.00139	NMED SSL
1,2-Dibromoethane	-	SW8260D	106-93-4	mg/kg	N/A	0.000352	0.000236	-	0.000352	NMED SSL
1,2-Dichlorobenzene	-	SW8260D	95-50-1	mg/kg	N/A	4.58	9.08	-	9.08	NMED SSL
1,2-Dichloroethane	-	SW8260D	107-06-2	mg/kg	N/A	0.00814	0.0238	-	0.0238	NMED SSL
1,2-Dichloropropane	-	SW8260D	78-87-5	mg/kg	N/A	0.0243	0.0277	-	0.0277	NMED SSL
1,3,5-Trimethylbenzene	-	SW8260D	108-67-8	mg/kg	N/A	NS	NS	1.73	1.73	EPA SSL

Table 11.5 – Human Health Soil to Groundwater Screening Levels

Analyte	Screening Level Surrogate	Analytical Method [1]	CASRN	Units	Background Value [2]	Human Health Screening Levels - Groundwater Protection			Selected Human Health Screening Level - Groundwater Protection [5]	Selected Human Health Screening Level - Groundwater Protection Source [5]
						NMED Table A-3 and Table 6-4 Risk-based SSL [3]	NMED Table A-3 NMGW/MCL based SSL [3]	EPA-RSL Calculator Risk-based SSL [4]		
						DAF = 20	DAF = 20	adjusted to DAF = 20		
Volatile Organic Compounds (Continued)										
1,3-Dichloropropane	-	SW8260D	142-28-9	mg/kg	N/A	NS	NS	2.57	2.57	EPA SSL
1,3-Dichlorobenzene	1,4-Dichlorobenzene	SW8260D	541-73-1	mg/kg	N/A	0.0720	1.12	-	1.12	NMED SSL
1,4-Dichlorobenzene	-	SW8260D	106-46-7	mg/kg	N/A	0.0720	1.12	-	1.12	NMED SSL
2,2-Dichloropropane	1,2-Dichloropropane	SW8260D	594-20-7	mg/kg	N/A	0.0243	0.0277	-	0.0277	NMED SSL
2-Butanone (MEK)	-	SW8260D	78-93-3	mg/kg	N/A	20.1	NS	-	20.1	NMED SSL
2-Chlorotoluene	-	SW8260D	95-49-8	mg/kg	N/A	3.56	NS	-	3.56	NMED SSL
2-Hexanone	-	SW8260D	591-78-6	mg/kg	N/A	NS	NS	0.175	0.175	EPA SSL
4-Chlorotoluene	-	SW8260D	106-43-4	mg/kg	N/A	NS	NS	4.83	4.83	EPA SSL
4-Methyl-2-Pentanone (MIBK)	-	SW8260D	108-10-1	mg/kg	N/A	4.80	NS	-	4.80	NMED SSL
Acetone	-	SW8260D	67-64-1	mg/kg	N/A	49.8	NS	-	49.8	NMED SSL
Benzene	-	SW8260D	71-43-2	mg/kg	N/A	0.0380	0.0418	-	0.0418	NMED SSL
Bromobenzene	-	SW8260D	108-86-1	mg/kg	N/A	NS	NS	0.842	0.842	EPA SSL
Bromochloromethane	-	SW8260D	74-97-5	mg/kg	N/A	NS	NS	0.415	0.415	EPA SSL
Bromodichloromethane	-	SW8260D	75-27-4	mg/kg	N/A	0.00621	NS	-	0.00621	NMED SSL
Bromoform	-	SW8260D	75-25-2	mg/kg	N/A	0.147	NS	-	0.147	NMED SSL
Bromomethane	-	SW8260D	74-83-9	mg/kg	N/A	0.0343	NS	-	0.0343	NMED SSL
Carbon Disulfide	-	SW8260D	75-15-0	mg/kg	N/A	4.42	NS	-	4.42	NMED SSL
Carbon Tetrachloride	-	SW8260D	56-23-5	mg/kg	N/A	0.0334	0.0367	-	0.0367	NMED SSL
Chlorobenzene	-	SW8260D	108-90-7	mg/kg	N/A	0.836	1.08	-	1.08	NMED SSL
Chloroethane	-	SW8260D	75-00-3	mg/kg	N/A	107	NS	-	107	NMED SSL
Chloroform	-	SW8260D	67-66-3	mg/kg	N/A	0.0109	NS	-	0.0109	NMED SSL
Chloromethane	-	SW8260D	74-87-3	mg/kg	N/A	0.0952	NS	-	0.0952	NMED SSL
cis-1,2-Dichloroethene	-	SW8260D	156-59-2	mg/kg	N/A	0.184	0.352	-	0.352	NMED SSL
cis-1,3-Dichloropropene	1,3-Dichloropropene	SW8260D	10061-01-5	mg/kg	N/A	0.0281	NS	-	0.0281	NMED SSL
Dibromochloromethane	-	SW8260D	124-48-1	mg/kg	N/A	0.00755	NS	-	0.00755	NMED SSL
Dibromomethane	-	SW8260D	74-95-3	mg/kg	N/A	0.0335	NS	-	0.0335	NMED SSL
Dichlorodifluoromethane	-	SW8260D	75-71-8	mg/kg	N/A	7.23	NS	-	7.23	NMED SSL
Ethylbenzene	-	SW8260D	100-41-4	mg/kg	N/A	0.264	12.3	-	12.3	NMED SSL
Hexachlorobutadiene	-	SW8260D	87-68-3	mg/kg	N/A	0.0413	NS	-	0.0413	NMED SSL
Isopropylbenzene	-	SW8260D	98-82-8	mg/kg	N/A	11.4	NS	-	11.4	NMED SSL
Methyl acetate	-	SW8260D	79-20-9	mg/kg	N/A	71.1	NS	-	71.1	NMED SSL
m,p-Xylenes	Xylenes	SW8260D	179601-23-1	mg/kg	N/A	2.98	154	-	154	NMED SSL
Methyl Tert-Butyl Ether	-	SW8260D	1634-04-4	mg/kg	N/A	0.553	NS	-	0.553	NMED SSL
Methylene Chloride	-	SW8260D	75-09-2	mg/kg	N/A	0.471	0.0221	-	0.471	NMED SSL
Naphthalene	-	SW8260D	91-20-3	mg/kg	N/A	0.0583	NS	-	0.0583	NMED SSL
n-Butylbenzene	-	SW8260D	104-51-8	mg/kg	N/A	NS	NS	64.6	64.6	EPA SSL

Table 11.5 – Human Health Soil to Groundwater Screening Levels

Analyte	Screening Level Surrogate	Analytical Method [1]	CASRN	Units	Background Value [2]	Human Health Screening Levels - Groundwater Protection			Selected Human Health Screening Level - Groundwater Protection [5]	Selected Human Health Screening Level - Groundwater Protection Source [5]
						NMED Table A-3 and Table 6-4 Risk-based SSL [3]	NMED Table A-3 NMGW/MCL based SSL [3]	EPA-RSL Calculator Risk-based SSL [4]		
						DAF = 20	DAF = 20	adjusted to DAF = 20		
Volatile Organic Compounds (Continued)										
n-Propylbenzene	-	SW8260D	103-65-1	mg/kg	N/A	NS	NS	24.5	24.5	EPA SSL
o-Xylene	-	SW8260D	95-47-6	mg/kg	N/A	2.98	NS	-	2.98	NMED SSL
4-Isopropyltoluene	Isopropylbenzene	SW8260D	99-87-6	mg/kg	N/A	11.4	NS	-	11.4	NMED SSL
Sec-Butylbenzene	-	SW8260D	135-98-8	mg/kg	N/A	NS	NS	117	117	EPA SSL
Styrene	-	SW8260D	100-42-5	mg/kg	N/A	20.6	1.71	-	20.6	NMED SSL
Tert-Butylbenzene	-	SW8260D	98-06-6	mg/kg	N/A	NS	NS	31.1	31.1	EPA SSL
Tetrachloroethene	-	SW8260D	127-18-4	mg/kg	N/A	0.321	0.0398	-	0.321	NMED SSL
Toluene	-	SW8260D	108-88-3	mg/kg	N/A	12.1	11.1	-	12.1	NMED SSL
Trans-1,2-Dichloroethene	-	SW8260D	156-60-5	mg/kg	N/A	0.342	0.503	-	0.503	NMED SSL
Trans-1,3-Dichloropropene	1,3-Dichloropropene	SW8260D	10061-02-6	mg/kg	N/A	0.0281	NS	-	0.0281	NMED SSL
Trichloroethene	-	SW8260D	79-01-6	mg/kg	N/A	0.0161	0.0310	-	0.0310	NMED SSL
Trichlorofluoromethane	-	SW8260D	75-69-4	mg/kg	N/A	15.7	NS	-	15.7	NMED SSL
Vinyl Chloride	-	SW8260D	75-01-4	mg/kg	N/A	0.00217	0.0134	-	0.0134	NMED SSL
Explosives										
1,3,5-Trinitrobenzene	-	SW8330B	99-35-4	mg/kg	N/A	NS	NS	42.4	42.4	EPA SSL
1,3-Dinitrobenzene	-	SW8330B	99-65-0	mg/kg	N/A	NS	NS	0.0353	0.0353	EPA SSL
2,4-Dinitrotoluene	-	SW8330B	121-14-2	mg/kg	N/A	0.0492	NS	-	0.0492	NMED SSL
2,6-Dinitrotoluene	-	SW8330B	606-20-2	mg/kg	N/A	0.0102	NS	-	0.0102	NMED SSL
2,4,6-Trinitrotoluene (TNT)	-	SW8330B	118-96-7	mg/kg	N/A	0.861	NS	-	0.861	NMED SSL
2-Amino-4,6-Dinitrotoluene	-	SW8330B	35572-78-2	mg/kg	N/A	0.0230	NS	-	0.0230	NMED SSL
2-Nitrotoluene	-	SW8330B	88-72-2	mg/kg	N/A	0.0458	NS	-	0.0458	NMED SSL
3-Nitrotoluene	-	SW8330B	99-08-1	mg/kg	N/A	0.0250	NS	-	0.0250	NMED SSL
4-Amino-2,6-Dinitrotoluene	-	SW8330B	19406-51-0	mg/kg	N/A	0.0230	NS	-	0.0230	NMED SSL
4-Nitrotoluene	-	SW8330B	99-99-0	mg/kg	N/A	0.613	NS	-	0.613	NMED SSL
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	-	SW8330B	121-82-4	mg/kg	N/A	0.0593	NS	-	0.0593	NMED SSL
Methyl-2,4,6-trinitrophenylnitramine (Tetryl)	-	SW8330B	479-45-8	mg/kg	N/A	5.59	NS	-	5.59	NMED SSL
Nitrobenzene	-	SW8330B	98-95-3	mg/kg	N/A	0.0144	NS	-	0.0144	NMED SSL
Nitroglycerin	-	SW8330B	55-63-0	mg/kg	N/A	0.0136	NS	-	0.0136	NMED SSL
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HM	-	SW8330B	2691-41-0	mg/kg	N/A	19.4	NS	-	19.4	NMED SSL
Pentaerythritol Tetranitrate (PETN)	-	SW8330B	78-11-5	mg/kg	N/A	NS	NS	5.18	5.18	EPA SSL
Total Petroleum Hydrocarbons										
DRO (C10-C-28)	-	SW8015D	68334-30-5	mg/kg	N/A	13.2	NS	-	13.2	NMED SSL
DRO Extended (C10-C36)	-	SW8015D	68334-30-5	mg/kg	N/A	13.2	NS	-	13.2	NMED SSL
RRO/ORO (C20-C38)	-	SW8015D	21274-30-0	mg/kg	N/A	13.2	NS	-	13.2	NMED SSL

Table 11.5 – Human Health Soil to Groundwater Screening Levels

Analyte	Screening Level Surrogate	Analytical Method [1]	CASRN	Units	Background Value [2]	Human Health Screening Levels - Groundwater Protection			Selected Human Health Screening Level - Groundwater Protection [5]	Selected Human Health Screening Level - Groundwater Protection Source [5]
						NMED Table A-3 and Table 6-4 Risk-based SSL [3]	NMED Table A-3 NMGW/MCL based SSL [3]	EPA-RSL Calculator Risk-based SSL [4]		
						DAF = 20	DAF = 20	adjusted to DAF = 20		
PCBs										
Aroclor 1016	-	SW8082A	12674-11-2	mg/kg	N/A	2.01	0.717	-	2.01	NMED SSL
Aroclor 1221	-	SW8082A	11104-28-2	mg/kg	N/A	0.0143	NS	-	0.0143	NMED SSL
Aroclor 1232	-	SW8082A	11141-16-5	mg/kg	N/A	0.0143	NS	-	0.0143	NMED SSL
Aroclor 1242	-	SW8082A	53469-21-9	mg/kg	N/A	0.184	NS	-	0.184	NMED SSL
Aroclor 1248	-	SW8082A	12672-29-6	mg/kg	N/A	0.181	NS	-	0.181	NMED SSL
Aroclor 1254	-	SW8082A	11097-69-1	mg/kg	N/A	0.308	NS	-	0.308	NMED SSL
Aroclor 1260	-	SW8082A	11096-82-5	mg/kg	N/A	0.825	NS	-	0.825	NMED SSL
Aroclor 1262	-	SW8082A	37324-23-5	mg/kg	N/A	NS	NS	NS	NS	
Aroclor 1268	-	SW8082A	11100-14-4	mg/kg	N/A	NS	NS	NS	NS	
Chlorinated Pesticides										
alpha-BHC	-	SW8081B	319-84-6	mg/kg	N/A	0.00608	NS	-	0.00608	NMED SSL
beta-BHC	-	SW8081B	319-85-7	mg/kg	N/A	0.0213	NS	-	0.0213	NMED SSL
delta-BHC	beta-BHC	SW8081B	319-86-8	mg/kg	N/A	0.0213	NS	-	0.0213	NMED SSL
gamma-BHC (Lindane)	-	SW8081B	58-89-9	mg/kg	N/A	0.0364	NS	-	0.0364	NMED SSL
Heptachlor	-	SW8081B	76-44-8	mg/kg	N/A	0.0275	0.497	-	0.497	NMED SSL
Aldrin	-	SW8081B	309-00-2	mg/kg	N/A	0.00488	NS	-	0.00488	NMED SSL
Heptachlor Epoxide	-	SW8081B	1024-57-3	mg/kg	N/A	NS	NS	0.00567	0.00567	EPA SSL
Endosulfan I	Endosulfan	SW8081B	959-98-8	mg/kg	N/A	20.4	NS	-	20.4	NMED SSL
Endosulfan II	Endosulfan	SW8081B	33213-65-9	mg/kg	N/A	20.4	NS	-	20.4	NMED SSL
Dieldrin	-	SW8081B	60-57-1	mg/kg	N/A	0.0106	NS	-	0.0106	NMED SSL
4,4'-DDD	-	SW8081B	72-54-8	mg/kg	N/A	1.12	NS	-	1.12	NMED SSL
4,4'-DDE	-	SW8081B	72-55-9	mg/kg	N/A	1.63	NS	-	1.63	NMED SSL
4,4'-DDT	-	SW8081B	50-29-3	mg/kg	N/A	11.6	NS	-	11.6	NMED SSL
Endrin	-	SW8081B	72-20-8	mg/kg	N/A	1.35	1.21	-	1.35	NMED SSL
Endrin Ketone		SW8081B	53494-70-5	mg/kg	N/A	NS	NS	NS	NS	
Endosulfan sulfate	Endosulfan	SW8081B	1031-07-8	mg/kg	N/A	20.4	NS	-	20.4	NMED SSL
Methoxychlor	-	SW8081B	72-43-5	mg/kg	N/A	NS	NS	40.0	40.0	EPA SSL
Endrin aldehyde	Endrin	SW8081B	7421-93-4	mg/kg	N/A	1.35	1.21	-	1.35	NMED SSL
alpha-Chlordane	Chlordane	SW8081B	5103-71-9	mg/kg	N/A	0.456	2.03	-	2.03	NMED SSL
gamma-Chlordane	Chlordane	SW8081B	5103-74-2	mg/kg	N/A	0.456	2.03	-	2.03	NMED SSL
Toxaphene		SW8081B	8001-35-2	mg/kg	N/A	0.366	6.96	-	6.96	NMED SSL

Table 11.5 – Human Health Soil to Groundwater Screening Levels

Analyte	Screening Level Surrogate	Analytical Method [1]	CASRN	Units	Background Value [2]	Human Health Screening Levels - Groundwater Protection			Selected Human Health Screening Level - Groundwater Protection [5]	Selected Human Health Screening Level - Groundwater Protection Source [5]
						NMED Table A-3 and Table 6-4 Risk-based SSL [3]	NMED Table A-3 NMGW/MCL based SSL [3]	EPA-RSL Calculator Risk-based SSL [4]		
						DAF = 20	DAF = 20	adjusted to DAF = 20		
Anions										
Nitrate as N	-	SW9056A	14797-55-8	mg/kg	N/A	425	135	-	425	NMED SSL
Nitrite as N	-	SW9056A	14797-65-0	mg/kg	N/A	26.6	13.5	-	26.6	NMED SSL
Bromide	-	SW9056A	24959-67-9	mg/kg	N/A	NS	NS	NS	NS	
Chloride	-	SW9056A	16887-00-6	mg/kg	N/A	NS	NS	NS	NS	
Fluoride	-	SW9056A	16984-48-8	mg/kg	N/A	NS	NS	2,400	NS	
Sulfate	-	SW9056A	14808-79-8	mg/kg	N/A	NS	NS	NS	NS	
Perchlorate										
Perchlorate	-	SW6850	14797-73-0	mg/kg	N/A	0.117	0.0127	-	0.117	NMED SSL
Dioxins/Furans										
1,2,3,4,6,7,8-HpCDD	-	SW8290	35822-46-9	mg/kg	N/A	NS	NS	0.00551	0.00551	EPA SSL
1,2,3,4,6,7,8-HpCDF	-	SW8290	67562-39-4	mg/kg	N/A	NS	NS	0.00308	0.00308	EPA SSL
1,2,3,4,7,8,9-HpCDF	-	SW8290	55673-89-7	mg/kg	N/A	NS	NS	0.00308	0.00308	EPA SSL
1,2,3,4,7,8-HxCDD	-	SW8290	39227-28-6	mg/kg	N/A	NS	NS	0.00167	0.00167	EPA SSL
1,2,3,4,7,8-HxCDF	-	SW8290	70648-26-9	mg/kg	N/A	NS	NS	0.000185	0.00019	EPA SSL
1,2,3,6,7,8-HxCDD	-	SW8290	57653-85-7	mg/kg	N/A	NS	NS	0.00167	0.00167	EPA SSL
1,2,3,6,7,8-HxCDF	-	SW8290	57117-44-9	mg/kg	N/A	NS	NS	0.000185	0.00019	EPA SSL
1,2,3,7,8,9-HxCDD	-	SW8290	19408-74-3	mg/kg	N/A	NS	NS	0.00167	0.00167	EPA SSL
1,2,3,7,8,9-HxCDF	-	SW8290	72918-21-9	mg/kg	N/A	NS	NS	0.000933	0.00093	EPA SSL
1,2,3,7,8-PeCDD	-	SW8290	40321-76-4	mg/kg	N/A	NS	NS	0.0000998	0.0000998	EPA SSL
1,2,3,7,8-PeCDF	-	SW8290	57117-41-6	mg/kg	N/A	NS	NS	0.00186	0.00186	EPA SSL
2,3,4,6,7,8-HxCDF	-	SW8290	60851-34-5	mg/kg	N/A	NS	NS	0.000933	0.00093	EPA SSL
2,3,4,7,8-PeCDF	-	SW8290	57117-31-4	mg/kg	N/A	NS	NS	0.000186	0.00019	EPA SSL
2,3,7,8-TCDD	-	SW8290	1746-01-6	mg/kg	N/A	0.00000886	0.000224	-	0.000224	NMED SSL
2,3,7,8-TCDF	-	SW8290	51207-31-9	mg/kg	N/A	0.00000769	NS	-	0.00000769	NMED SSL
OCDD	-	SW8290	3268-87-9	mg/kg	N/A	NS	NS	1.55	1.55	EPA SSL
OCDF	-	SW8290	39001-02-0	mg/kg	N/A	NS	NS	0.868	0.868	EPA SSL

Table 11.5 – Human Health Soil to Groundwater Screening Levels

Analyte	Screening Level Surrogate	Analytical Method [1]	CASRN	Units	Background Value [2]	Human Health Screening Levels - Groundwater Protection			Selected Human Health Screening Level - Groundwater Protection [5]	Selected Human Health Screening Level - Groundwater Protection Source [5]
						NMED Table A-3 and Table 6-4 Risk-based SSL [3]	NMED Table A-3 NMGW/MCL based SSL [3]	EPA-RSL Calculator Risk-based SSL [4]		
						DAF = 20	DAF = 20	adjusted to DAF = 20		

Notes:

1. Analytical Method - EPA Test Methods for Evaluating Solid Waste latest edition (the most current version of each method the laboratory is accredited to will be used).
2. Selected FWDA background values are presented in Table 8-1 from *Soil Background Study and Data Evaluation Report* (Shaw, 2010), except arsenic and antimony:
   - The arsenic background reference value is 5.6 mg/kg per Evaluation of Background Levels for Arsenic in Soil (NMED, 2013b). If the maximum arsenic concentration is greater than 5.6 mg/kg, then the range of arsenic concentrations in the sample data set is to be compared to the range of arsenic concentrations in the site-specific background data set (0.2 mg/kg to 11.2 mg/kg).
   - The antimony background level of 0.23 mg/kg is from soil unit 350ss as presented in Table 4-1 of the *Phase 2 Soil Background Report* (USACE, 2013).
3. NMED *Risk Assessment Guidance for Site Investigations and Remediation* , November 2022 Revised (Appendix A, Table A-3, risk-based SSL and NMGW/MCL-based SSL, and Table 6-4 for petroleum hydrocarbon mixtures; DAF=20).
4. USEPA RSL Calculator (TR=1E-05, HQ=1), November 2024 (protection of groundwater risk-based SSL). All analytes are adjusted to a DAF of 20.
5. The selected screening level for protection of groundwater is the highest value between the NMED risk-based SSL and NMED NMGW/MCL-based SSL based on a DAF of 20 (listed in Table A-1, per Section 4.9 of NMED, 2022). For analytes without NMED values, the USEPA protection of groundwater risk-based SSL was selected (USEPA RSL Calculator [TR=1E-05, HQ=1], November 2024, adjusted to a DAF of 20).
   The most recent screening levels published by NMED and USEPA at the time the risk evaluation is conducted will be used in the risk evaluation.
6. Lead human health screening levels appear in the non-cancer column, but the health effects of lead are not correlated with the typical carcinogenic or non-carcinogenic dose-based toxicity values that characterize other chemicals. Instead, the screening level for lead is based on a modeled concentration in soil that results in an acceptable blood lead level protective of adverse developmental health effects (USEPA, 2024).

Acronyms and Abbreviations:

CASRN = Chemical Abstracts Service Registry Number
DAF = Dilution attenuation factor
DRO = Diesel-range organics
EPA = United States Environmental Protection Agency
FWDA = Fort Wingate Depot Activity
HQ = Hazard quotient
MCL = Maximum contaminant level
mg/kg = Milligram per kilogram
N/A = Not applicable
NMED = New Mexico Environment Department
NMGW = New Mexico groundwater
NS = No standard
RCRA = Resource Conservation and Recovery Act
RSL = Regional screening level
SIM = Selected ion mode
SL-SSL = soil leachate-based SSL
SSL = Soil screening level

Table 11.6 - Ecological Screening Levels in Soil

Analyte	Analytical Method[1]	CASRN	Units	Background Value[2]	NMED Ecological Screening Level[3, 4]			USEPA Eco SSLs[5]			LANL ESLs[6]			EPA Region 4 ESVs[7]			Selected ESL[8]			Most Protective of Selected ESL
					Plants	Deer Mouse	Horned Lark	Plants	Deer Mouse	Horned Lark	Terrestrial Plants	Deer Mouse	American Robin (Avian Omnivore)	Plants	Mammalian	Avian	Plants	Deer Mouse	Horned Lark	
RCRA Metals																				
Arsenic	SW6020B	7440-38-2	mg/kg	5.60	**18.0**	**9.45**	**10.6**	18.0	46	43	18	32	21	18	46	43	18.0	9.45	10.6	9.45
Barium	SW6020B	7440-39-3	mg/kg	482	**118**	**471**	**348**	NS	2,000	NS	110	1,800	770	110	2,000	820	118	471	348	118
Cadmium	SW6020B	7440-43-9	mg/kg	0.224	**32.0**	**7.00**	**6.95**	32.0	0.36	0.77	32	0.5	0.54	32	0.36	0.77	32	7	6.95	6.95
Lead	SW6020B	7439-92-1	mg/kg	12.4	**120**	**42.7**	**7.71**	120	56	11	120	120	14	120	56	11	120	42.7	7.71	7.71
Mercury	SW6020B	7439-97-6	mg/kg	0.0300	**34.9**	**12.8**	**0.0899**	NS	NS	NS	34	3	0.022	0.3	1.7	0.013	34.9	12.8	0.0899	0.0899
Selenium	SW6020B	7782-49-2	mg/kg	0.513	**0.520**	**1.30**	**1.37**	0.520	0.63	1.2	0.52	0.82	0.83	0.52	0.63	1.2	0.52	1.3	1.37	0.52
Silver	SW6020B	7440-22-4	mg/kg	0.130	**560**	**54.7**	**10.4**	560	14	4.2	560	24	4.1	560	14	4.2	560	54.7	10.4	10.4
Total Chromium	SW6020B	7440-47-3	mg/kg	18.1	NS	**21.8**	**12.6**	NS	NS	NS	NS	110	32	NS	63	23	NS	21.8	12.6	12.6
Semi-Volatile Organic Compounds																				
2,2-Oxybis(1-chloropropane)	SW8270E	108-60-1	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2,4,5-Trichlorophenol	SW8270E	95-95-4	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	**4**	**14.1**	NS	4	14.1	NS	4
2,4,6-Trichlorophenol	SW8270E	88-06-2	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**9.94**	NS	NS	9.94	NS	9.94
2,4-Dichlorophenol	SW8270E	120-83-2	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**87.5**	NS	NS	87.5	NS	87.5
2,4-Dimethylphenol	SW8270E	105-67-9	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2,4-Dinitrophenol	SW8270E	51-28-5	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	20	**0.061**	NS	20	0.061	NS	0.061
2,4-Dinitrotoluene	SW8270E	121-14-2	mg/kg	N/A	**6.00**	**24.4**	NS	NS	NS	NS	6	20	NS	6	14	NS	6	24.4	NS	6
2,6-Dinitrotoluene	SW8270E	606-20-2	mg/kg	N/A	NS	**16.1**	**284**	NS	NS	NS	NS	4	74	NS	4.0	52	NS	16.1	284	16.1
2-Chloronaphthalene	SW8270E	91-58-7	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2-Chlorophenol	SW8270E	95-57-8	mg/kg	N/A	NS	**4.55**	**5.34**	NS	NS	NS	NS	0.54	0.68	NS	0.54	0.39	NS	4.55	5.34	4.55
2-Methylphenol	SW8270E	95-48-7	mg/kg	N/A	**0.670**	**2,000**	NS	NS	NS	NS	0.67	580	NS	0.67	580	NS	0.670	2,000	NS	0.67
2-Nitroaniline	SW8270E	88-74-4	mg/kg	N/A	NS	**27.3**	NS	NS	NS	NS	NS	5.3	NS	NS	5.3	NS	NS	27.3	NS	27.3
2-Nitrophenol	SW8270E	88-75-5	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
3 & 4 Methylphenol	SW8270E	15831-10-4	mg/kg	N/A	**0.690**	NS	NS	NS	NS	NS	NS	NS	NS	0.69	**3.49**	NS	0.69	3.49	NS	0.69
3,3'-Dichlorobenzidine	SW8270E	91-94-1	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.646**	NS	NS	0.646	NS	0.646
3-Nitroaniline	SW8270E	99-09-2	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
4,6-Dinitro-2-Methylphenol	SW8270E	534-52-1	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
4-Bromophenyl-phenyl ether	SW8270E	101-55-3	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
4-Chloro-3-Methylphenol	SW8270E	59-50-7	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
4-Chloroaniline	SW8270E	106-47-8	mg/kg	N/A	NS	NS	NS	NS	NS	NS	**1**	NS	NS	1	**1.1**	NS	1	1.1	NS	1
4-Chlorophenyl-phenyl ether	SW8270E	7005-72-3	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
4-Nitroaniline	SW8270E	100-01-6	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
4-Nitrophenol	SW8270E	100-02-7	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**5.12**	NS	NS	5.12	NS	5.12
Benzaldehyde	SW8270E	100-52-7	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Bis(2-Chloroethoxy)Methane	SW8270E	111-91-1	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Bis(2-Chloroethyl)Ether	SW8270E	111-44-4	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Bis(2-Ethylhexyl)Phthalate	SW8270E	117-81-7	mg/kg	N/A	NS	**166**	**5.20**	NS	NS	NS	NS	1.1	0.04	NS	0.6	0.02	NS	166	5.20	5.20
Butylbenzylphthalate	SW8270E	85-68-7	mg/kg	N/A	NS	**1,450**	NS	NS	NS	NS	NS	160	NS	NS	90	NS	NS	1,450	NS	1,450
Caprolactam	SW8270E	105-60-2	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Carbazole	SW8270E	86-74-8	mg/kg	N/A	NS	**207**	NS	NS	NS	NS	NS	79	NS	NS	79	NS	NS	207	NS	207
Dibenzofuran	SW8270E	132-64-9	mg/kg	N/A	**6.17**	NS	NS	NS	**100**	NS	6.1	NS	NS	6.1	NS	NS	6.17	100	NS	6.17
Diethylphthalate	SW8270E	84-66-2	mg/kg	N/A	**100**	**41,800**	NS	NS	NS	NS	100	3600	NS	100	3600	NS	100	41,800	NS	100
Dimethylphthalate	SW8270E	131-11-3	mg/kg	N/A	NS	**618**	NS	NS	NS	NS	NS	38	NS	NS	38	NS	NS	618	NS	618
Di-N-Butylphthalate	SW8270E	84-74-2	mg/kg	N/A	**167**	**12,200**	**0.662**	NS	NS	NS	160	360	0.021	160	180	0.011	167	12,200	0.662	0.662
Di-n-Octylphthalate	SW8270E	117-84-0	mg/kg	N/A	NS	**592**	NS	NS	NS	NS	NS	1.8	NS	NS	0.91	NS	NS	592	NS	592
Hexachlorobenzene	SW8270E	118-74-1	mg/kg	N/A	**10.0**	**64.5**	**23.7**	NS	NS	NS	10	0.39	0.15	10	0.2	0.079	10	64.5	23.7	10.0
Hexachlorobutadiene	SW8270E	87-68-3	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.04**	NS	NS	0.04	NS	0.04
Hexachlorocyclopentadiene	SW8270E	77-47-4	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	**10**	**0.755**	NS	10	0.755	NS	0.755
Hexachloroethane	SW8270E	67-72-1	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.6**	NS	NS	0.6	NS	0.6

Table 11.6 - Ecological Screening Levels in Soil

Analyte	Analytical Method[1]	CASRN	Units	Background Value[2]	NMED Ecological Screening Level[3, 4]			USEPA Eco SSLs[5]			LANL ESLs[6]			EPA Region 4 ESVs[7]			Selected ESL[8]			Most Protective of Selected ESL
					Plants	Deer Mouse	Horned Lark	Plants	Deer Mouse	Horned Lark	Terrestrial Plants	Deer Mouse	American Robin (Avian Omnivore)	Plants	Mammalian	Avian	Plants	Deer Mouse	Horned Lark	
Semi-Volatile Organic Compounds (Continued)																				
Isophorone	SW8270E	78-59-1	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nitrobenzene	SW8270E	98-95-3	mg/kg	N/A	NS	**53.6**	NS	NS	NS	NS	NS	4.8	NS	NS	4.8	NS	NS	53.6	NS	53.6
N-Nitroso-Di-N-Propylamine	SW8270E	621-64-7	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
N-Nitrosodiphenylamine	SW8270E	86-30-6	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.545**	NS	NS	0.545	NS	0.545
Pentachlorophenol	SW8270E	87-86-5	mg/kg	N/A	**5.00**	**76.5**	**31.8**	5.00	2.80	2.10	5	1.5	0.72	5	2.8	2.1	5	76.5	31.8	5.00
Phenol	SW8270E	108-95-2	mg/kg	N/A	**0.790**	**545**	NS	NS	NS	NS	0.79	37	NS	0.79	37	NS	0.79	545	NS	0.79
2-Methylnaphthalene	SW8270E	91-57-6	mg/kg	N/A	NS	NS	NS	NS	**100**	NS	NS	24	NS	NS	16	NS	NS	100	NS	100
Acenaphthene	SW8270E	83-32-9	mg/kg	N/A	**0.250**	**636**	NS	NS	100	NS	0.25	160	NS	0.25	130	NS	0.25	636	NS	0.250
Acenaphthylene	SW8270E	208-96-8	mg/kg	N/A	NS	**636**	NS	NS	100	NS	NS	160	NS	NS	120	NS	NS	636	NS	636
Anthracene	SW8270E	120-12-7	mg/kg	N/A	**6.88**	**909**	NS	NS	100	NS	6.8	300	NS	6.8	210	NS	6.88	909	NS	6.88
Benzo(a)anthracene	SW8270E	56-55-3	mg/kg	N/A	**18.0**	**1.55**	**0.506**	NS	1.1	NS	18	3.4	0.8	18	3.4	0.73	18	1.55	0.506	0.506
Benzo(a)pyrene	SW8270E	50-32-8	mg/kg	N/A	NS	**50.7**	NS	NS	1.1	NS	NS	84	NS	NS	62	NS	NS	50.7	NS	50.7
Benzo(b)fluoranthene	SW8270E	205-99-2	mg/kg	N/A	**18.0**	**36.4**	NS	NS	1.1	NS	18	51	NS	18	44	NS	18	36.4	NS	18.0
Benzo(k)fluoranthene	SW8270E	207-08-9	mg/kg	N/A	NS	**65.4**	NS	NS	1.1	NS	NS	99	NS	NS	71	NS	NS	65.4	NS	65.4
Benzo(g,h,i)perylene	SW8270E	191-24-2	mg/kg	N/A	NS	**65.4**	NS	NS	1.1	NS	NS	46	NS	NS	25	NS	NS	65.4	NS	65.4
Chrysene	SW8270E	218-01-9	mg/kg	N/A	NS	**1.55**	NS	NS	1.1	NS	NS	3.1	NS	NS	3.1	NS	NS	1.55	NS	1.55
Dibenz(a,h)anthracene	SW8270E	53-70-3	mg/kg	N/A	NS	**12.1**	NS	NS	1.1	NS	NS	22	NS	NS	14	NS	NS	12.1	NS	12.1
Fluoranthene	SW8270E	206-44-0	mg/kg	N/A	NS	**114**	NS	NS	1.1	NS	NS	38	NS	NS	22	NS	NS	114	NS	114
Fluorene	SW8270E	86-73-7	mg/kg	N/A	NS	**1,140**	NS	NS	100	NS	NS	340	NS	NS	250	NS	NS	1,140	NS	1,140
Indeno(1,2,3-cd)pyrene	SW8270E	193-39-5	mg/kg	N/A	NS	**65.4**	NS	NS	1.1	NS	NS	110	NS	NS	71	NS	NS	65.4	NS	65.4
Naphthalene	SW8270E	91-20-3	mg/kg	N/A	**1.00**	**130**	**71.0**	NS	100	NS	1	9.6	5.7	1.00	9.6	3.4	1.00	130	71	1.00
Phenanthrene	SW8270E	85-01-8	mg/kg	N/A	NS	**46.7**	NS	NS	100	NS	NS	15	NS	NS	11	NS	NS	46.7	NS	46.7
Pyrene	SW8270E	129-00-0	mg/kg	N/A	NS	**68.2**	**97.0**	NS	1.1	NS	NS	31	44	NS	23	33	NS	68.2	97	68.2
Polycyclic Aromatic Hydrocarbons																				
1-Methylnaphthalene	SW8270E SIM	90-12-0	mg/kg	N/A	NS	NS	NS	NS	**100**	NS	NS	NS	NS	NS	NS	NS	NS	100	NS	100
2-Methylnaphthalene	SW8270E SIM	91-57-6	mg/kg	N/A	NS	NS	NS	NS	**100**	NS	NS	24	NS	NS	16	NS	NS	100	NS	100
Acenaphthene	SW8270E SIM	83-32-9	mg/kg	N/A	**0.250**	**636**	NS	NS	100	NS	0.25	160	NS	0.25	130	NS	0.25	636	NS	0.250
Acenaphthylene	SW8270E SIM	208-96-8	mg/kg	N/A	NS	**636**	NS	NS	100	NS	NS	160	NS	NS	120	NS	NS	636	NS	636
Anthracene	SW8270E SIM	120-12-7	mg/kg	N/A	**6.88**	**909**	NS	NS	100	NS	6.8	300	NS	6.8	210	NS	6.88	909	NS	6.88
Benzo(a)anthracene	SW8270E SIM	56-55-3	mg/kg	N/A	**18.0**	**1.55**	**0.506**	NS	1.1	NS	18	3.4	0.8	18	3.4	0.73	18	1.55	0.506	0.506
Benzo(a)pyrene	SW8270E SIM	50-32-8	mg/kg	N/A	NS	**50.7**	NS	NS	1.1	NS	NS	84	NS	NS	62	NS	NS	50.7	NS	50.7
Benzo(b)fluoranthene	SW8270E SIM	205-99-2	mg/kg	N/A	**18.0**	**36.4**	NS	NS	1.1	NS	18	51	NS	18	44	NS	18.00	36.4	NS	18.0
Benzo(k)fluoranthene	SW8270E SIM	207-08-9	mg/kg	N/A	NS	**65.4**	NS	NS	1.1	NS	NS	99	NS	NS	71	NS	NS	65.4	NS	65.4
Benzo(g,h,i)perylene	SW8270E SIM	191-24-2	mg/kg	N/A	NS	**65.4**	NS	NS	1.1	NS	NS	46	NS	NS	25	NS	NS	65.4	NS	65.4
Chrysene	SW8270E SIM	218-01-9	mg/kg	N/A	NS	**1.55**	NS	NS	1.1	NS	NS	3.1	NS	NS	3.1	NS	NS	1.55	NS	1.55
Dibenz(a,h)anthracene	SW8270E SIM	53-70-3	mg/kg	N/A	NS	**12.1**	NS	NS	1.1	NS	NS	22	NS	NS	14	NS	NS	12.1	NS	12.1
Fluoranthene	SW8270E SIM	206-44-0	mg/kg	N/A	NS	**114**	NS	NS	1.1	NS	NS	38	NS	NS	22	NS	NS	114	NS	114
Fluorene	SW8270E SIM	86-73-7	mg/kg	N/A	NS	**1,140**	NS	NS	100	NS	NS	340	NS	NS	250	NS	NS	1,140	NS	1,140
Indeno(1,2,3-cd)pyrene	SW8270E SIM	193-39-5	mg/kg	N/A	NS	**65.4**	NS	NS	1.1	NS	NS	110	NS	NS	71	NS	NS	65.4	NS	65.4
Naphthalene	SW8270E SIM	91-20-3	mg/kg	N/A	**1.00**	**130**	**71.0**	NS	100.0	NS	1	9.6	5.7	1.00	9.6	3.4	1.00	130	71.0	1.00
Phenanthrene	SW8270E SIM	85-01-8	mg/kg	N/A	NS	**46.7**	NS	NS	100	NS	NS	15	NS	NS	11	NS	NS	46.7	NS	46.7
Pyrene	SW8270E SIM	129-00-0	mg/kg	N/A	NS	**68.2**	**97.0**	NS	1.1	NS	NS	31	44	NS	23	33	NS	68.2	97.0	68.2

Table 11.6 - Ecological Screening Levels in Soil

Analyte	Analytical Method[1]	CASRN	Units	Background Value[2]	NMED Ecological Screening Level[3, 4]			USEPA Eco SSLs[5]			LANL ESLs[6]			EPA Region 4 ESVs[7]			Selected ESL[8]			Most Protective of Selected ESL
					Plants	Deer Mouse	Horned Lark	Plants	Deer Mouse	Horned Lark	Terrestrial Plants	Deer Mouse	American Robin (Avian Omnivore)	Plants	Mammalian	Avian	Plants	Deer Mouse	Horned Lark	
Volatile Organic Compounds																				
1,1,1,2-Tetrachloroethane	SW8260D	630-20-6	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**225**	NS	NS	225	NS	225
1,1,1-Trichloroethane	SW8260D	71-55-6	mg/kg	N/A	NS	**9,080**	NS	NS	NS	NS	NS	400	NS	NS	260	NS	NS	9,080	NS	9,080
1,1,2,2-Tetrachloroethane	SW8260D	79-34-5	mg/kg	N/A	NS	**403**	NS	NS	NS	NS	NS	NS	NS	NS	0.127	NS	NS	403	NS	403
1,1,2-Trichloroethane	SW8260D	79-00-5	mg/kg	N/A	NS	**35.5**	NS	NS	NS	NS	NS	NS	NS	NS	28.6	NS	NS	35.5	NS	35.5
1,1-Dichloroethane	SW8260D	75-34-3	mg/kg	N/A	NS	**3,470**	NS	NS	NS	NS	NS	210	NS	NS	210	NS	NS	3,470	NS	3,470
1,1-Dichloroethene	SW8260D	75-35-4	mg/kg	N/A	NS	**273**	NS	NS	NS	NS	NS	14	NS	NS	11	NS	NS	273	NS	273
1,1-Dichloropropene	SW8260D	563-58-6	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1,2,3-Trichlorobenzene	SW8260D	87-61-6	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1,2,3-Trichloropropane	SW8260D	96-18-4	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1,2,4-Trichlorobenzene	SW8260D	120-82-1	mg/kg	N/A	NS	**13.5**	NS	NS	NS	NS	NS	0.51	NS	NS	0.27	NS	NS	13.5	NS	13.5
1,2,4-Trimethylbenzene	SW8260D	95-63-6	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1,2-Dibromo-3-Chloropropane	SW8260D	96-12-8	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1,2-Dibromoethane	SW8260D	106-93-4	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1,2-Dichlorobenzene	SW8260D	95-50-1	mg/kg	N/A	NS	**22.7**	NS	NS	NS	NS	NS	1.5	NS	NS	0.92	NS	NS	22.7	NS	22.7
1,2-Dichloroethane	SW8260D	107-06-2	mg/kg	N/A	NS	**452**	**21.8**	NS	NS	NS	NS	27	1.4	NS	27	0.85	NS	452	21.8	21.8
1,2-Dichloropropane	SW8260D	78-87-5	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**32.7**	NS	NS	32.7	NS	32.7
1,3,5-Trimethylbenzene	SW8260D	108-67-8	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1,3-Dichloropropane	SW8260D	142-28-9	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1,3-Dichlorobenzene	SW8260D	541-73-1	mg/kg	N/A	NS	**22.7**	NS	NS	NS	NS	NS	1.2	NS	NS	0.74	NS	NS	22.7	NS	22.7
1,4-Dichlorobenzene	SW8260D	106-46-7	mg/kg	N/A	NS	**22.7**	NS	NS	NS	NS	NS	1.5	NS	NS	0.89	NS	NS	22.7	NS	22.7
2,2-Dichloropropane	SW8260D	594-20-7	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2-Butanone (MEK)	SW8260D	78-93-3	mg/kg	N/A	NS	**16,100**	NS	NS	NS	NS	NS	350	NS	NS	350	NS	NS	16,100	NS	16,100
2-Chlorotoluene	SW8260D	95-49-8	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2-Hexanone	SW8260D	591-78-6	mg/kg	N/A	NS	**75.2**	**4.73**	NS	NS	NS	NS	6.1	0.41	NS	5.4	0.36	NS	75.2	4.73	4.73
4-Chlorotoluene	SW8260D	106-43-4	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
4-Methyl-2-Pentanone (MIBK)	SW8260D	108-10-1	mg/kg	N/A	NS	**227**	NS	NS	NS	NS	NS	9.7	NS	NS	NS	NS	NS	227	NS	227
Acetone	SW8260D	67-64-1	mg/kg	N/A	NS	**90.9**	**951**	NS	NS	NS	NS	1.2	14	NS	1.2	7.5	NS	90.9	951	90.9
Benzene	SW8260D	71-43-2	mg/kg	N/A	NS	**240**	NS	NS	NS	NS	NS	24	NS	NS	24	NS	NS	240	NS	240
Bromobenzene	SW8260D	108-86-1	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Bromochloromethane	SW8260D	74-97-5	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Bromodichloromethane	SW8260D	75-27-4	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Bromoform	SW8260D	75-25-2	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**15.9**	NS	NS	15.9	NS	15.9
Bromomethane	SW8260D	74-83-9	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.24**	NS	NS	0.24	NS	0.24
Carbon Disulfide	SW8260D	75-15-0	mg/kg	N/A	NS	**2.27**	NS	NS	NS	NS	NS	0.81	NS	NS	0.81	NS	NS	2.27	NS	2.27
Carbon Tetrachloride	SW8260D	56-23-5	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**2.98**	NS	NS	2.98	NS	2.98
Chlorobenzene	SW8260D	108-90-7	mg/kg	N/A	NS	**545**	**284**	NS	NS	NS	NS	53	NS	NS	43	NS	NS	545	284	284
Chloroethane	SW8260D	75-00-3	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chloroform	SW8260D	67-66-3	mg/kg	N/A	NS	**136**	NS	NS	NS	NS	NS	8	NS	NS	8	NS	NS	136	NS	136
Chloromethane	SW8260D	74-87-3	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
cis-1,2-Dichloroethene	SW8260D	156-59-2	mg/kg	N/A	NS	**411**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	411	NS	411
cis-1,3-Dichloropropene	SW8260D	10061-01-5	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Dibromochloromethane	SW8260D	124-48-1	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Dibromomethane	SW8260D	74-95-3	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Dichlorodifluoromethane	SW8260D	75-71-8	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Ethylbenzene	SW8260D	100-41-4	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**5.16**	NS	NS	5.16	NS	5.16
Hexachlorobutadiene	SW8260D	87-68-3	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.04**	NS	NS	0.04	NS	0.04
Isopropylbenzene	SW8260D	98-82-8	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Methyl acetate	SW8260D	79-20-9	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

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Analyte	Analytical Method[1]	CASRN	Units	Background Value[2]	NMED Ecological Screening Level[3, 4]			USEPA Eco SSLs[5]			LANL ESLs[6]			EPA Region 4 ESVs[7]			Selected ESL[8]			Most Protective of Selected ESL
					Plants	Deer Mouse	Horned Lark	Plants	Deer Mouse	Horned Lark	Terrestrial Plants	Deer Mouse	American Robin (Avian Omnivore)	Plants	Mammalian	Avian	Plants	Deer Mouse	Horned Lark	
Volatile Organic Compounds (Continued)																				
m,p-Xylenes	SW8260D	179601-23-1	mg/kg	N/A	NS	**19.1**	**506**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	19.1	506	19.1
Methyl Tert-Butyl Ether	SW8260D	1634-04-4	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Methylene Chloride	SW8260D	75-09-2	mg/kg	N/A	**1,670**	**53.2**	NS	NS	NS	NS	1600	2.6	NS	1600	2.6	NS	1,670	53.2	NS	53.2
Naphthalene	SW8260D	91-20-3	mg/kg	N/A	**1.00**	**130**	**71.0**	NS	100	NS	1	9.6	5.7	1.0	9.6	3.4	1.00	130	71.0	1.00
n-Butylbenzene	SW8260D	104-51-8	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
n-Propylbenzene	SW8260D	103-65-1	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
o-Xylene	SW8260D	95-47-6	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
4-Isopropyltoluene	SW8260D	99-87-6	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Sec-Butylbenzene	SW8260D	135-98-8	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Styrene	SW8260D	100-42-5	mg/kg	N/A	**3.20**	NS	NS	NS	NS	NS	3.2	NS	NS	3.2	NS	NS	3.20	NS	NS	3.20
Tert-Butylbenzene	SW8260D	98-06-6	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Tetrachloroethene	SW8260D	127-18-4	mg/kg	N/A	**10.0**	**18.2**	NS	NS	NS	NS	10	0.35	NS	10	0.18	NS	10.0	18.2	NS	10
Toluene	SW8260D	108-88-3	mg/kg	N/A	**200**	**236**	NS	NS	NS	NS	200	25	NS	200	23	NS	200	236	NS	200
Trans-1,2-Dichloroethene	SW8260D	156-60-5	mg/kg	N/A	NS	**411**	NS	NS	NS	NS	NS	25	NS	NS	0.784	NS	NS	411	NS	411
Trans-1,3-Dichloropropene	SW8260D	10061-02-6	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Trichloroethene	SW8260D	79-01-6	mg/kg	N/A	NS	**909**	NS	NS	NS	NS	NS	54	NS	NS	42	NS	NS	909	NS	909
Trichlorofluoromethane	SW8260D	75-69-4	mg/kg	N/A	NS	**1,930**	NS	NS	NS	NS	NS	97	NS	NS	16.4	NS	NS	1,930	NS	1,930
Vinyl Chloride	SW8260D	75-01-4	mg/kg	N/A	NS	**1.55**	NS	NS	NS	NS	NS	0.13	NS	NS	0.12	NS	NS	1.55	NS	1.55
Explosives																				
1,3,5-Trinitrobenzene	SW8330B	99-35-4	mg/kg	N/A	NS	**122**	NS	NS	NS	NS	NS	110	NS	**0.3**	NS	NS	0.3	122	NS	0.3
1,3-Dinitrobenzene	SW8330B	99-65-0	mg/kg	N/A	NS	**1.03**	**2.00**	NS	NS	NS	NS	0.072	0.15	NS	0.072	0.079	NS	1.03	2.00	1.03
2,4-Dinitrotoluene	SW8330B	121-14-2	mg/kg	N/A	**6.00**	**24.4**	NS	NS	NS	NS	6	20	NS	6	14	NS	6.00	24.4	NS	6.00
2,6-Dinitrotoluene	SW8330B	606-20-2	mg/kg	N/A	NS	**16.1**	**284**	NS	NS	NS	NS	4	74	NS	4.0	52	NS	16.1	284	16.1
2,4,6-Trinitrotoluene (TNT)	SW8330B	118-96-7	mg/kg	N/A	**62.1**	**315**	**46.1**	NS	NS	NS	62	95	14	62	95	7.5	62.1	315	46.1	46.1
2-Amino-4,6-Dinitrotoluene	SW8330B	35572-78-2	mg/kg	N/A	**14.0**	**126**	NS	NS	NS	NS	14	23	NS	14	16	NS	14.0	126	NS	14.0
2-Nitrotoluene	SW8330B	88-72-2	mg/kg	N/A	NS	**81.0**	NS	NS	NS	NS	NS	9.8	NS	NS	9.8	NS	NS	81.0	NS	81.0
3-Nitrotoluene	SW8330B	99-08-1	mg/kg	N/A	NS	**97.3**	NS	NS	NS	NS	NS	12	NS	NS	12	NS	NS	97.3	NS	97.3
4-Amino-2,6-Dinitrotoluene	SW8330B	19406-51-0	mg/kg	N/A	**33.0**	**87.2**	NS	NS	NS	NS	33	23	NS	33	12	NS	33.0	87.2	NS	33.0
4-Nitrotoluene	SW8330B	99-99-0	mg/kg	N/A	NS	**178**	NS	NS	NS	NS	NS	21	NS	NS	21	NS	NS	178	NS	178
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	SW8330B	121-82-4	mg/kg	N/A	NS	**81.3**	**11.2**	NS	NS	NS	**36**	16	2.3	45.9	16	2.3	36	81.3	11.2	11.2
Methyl-2,4,6-trinitrophenylnitramine (Tetryl)	SW8330B	479-45-8	mg/kg	N/A	NS	**11.8**	NS	NS	NS	NS	NS	1.5	NS	25	1.5	NS	25	11.8	NS	11.8
Nitrobenzene	SW8330B	98-95-3	mg/kg	N/A	NS	**53.6**	NS	NS	NS	NS	NS	4.8	NS	NS	4.8	NS	NS	53.6	NS	53.6
Nitroglycerin	SW8330B	55-63-0	mg/kg	N/A	**21.0**	**876**	NS	NS	NS	NS	21	70	NS	21	70	NS	21.0	876	NS	21.0
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	SW8330B	2691-41-0	mg/kg	N/A	**2,740**	**682**	NS	NS	NS	NS	2700	290	NS	2700	290	NS	2,740	682	NS	682
Pentaerythritol Tetranitrate (PETN)	SW8330B	78-11-5	mg/kg	N/A	NS	**636**	NS	NS	NS	NS	NS	100	NS	NS	100	NS	NS	636	NS	636
Total Petroleum Hydrocarbons																				
DRO (C10-C28)	SW8015D	68334-30-5	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
DRO Extended (C10-C36)	SW8015D	68334-30-5	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
RRO/ORO (C20-C38)	SW8015D	21274-30-0	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
PCBs																				
Aroclor 1016	SW8082A	12674-11-2	mg/kg	N/A	NS	**13.5**	NS	NS	NS	NS	NS	2	NS	NS	NS	NS	NS	13.5	NS	13.5
Aroclor 1221	SW8082A	11104-28-2	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1232	SW8082A	11141-16-5	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Table 11.6 - Ecological Screening Levels in Soil

Analyte	Analytical Method[1]	CASRN	Units	Background Value[2]	NMED Ecological Screening Level[3, 4]			USEPA Eco SSLs[5]			LANL ESLs[6]			EPA Region 4 ESVs[7]			Selected ESL[8]			Most Protective of Selected ESL
					Plants	Deer Mouse	Horned Lark	Plants	Deer Mouse	Horned Lark	Terrestrial Plants	Deer Mouse	American Robin (Avian Omnivore)	Plants	Mammalian	Avian	Plants	Deer Mouse	Horned Lark	
PCBs (Continued)																				
Aroclor 1242	SW8082A	53469-21-9	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	**0.75**	**0.51**	NS	NS	NS	NS	0.75	0.51	0.51
Aroclor 1248	SW8082A	12672-29-6	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	**0.014**	**0.078**	NS	NS	NS	NS	0.014	0.078	0.014
Aroclor 1254	SW8082A	11097-69-1	mg/kg	N/A	**163**	**5.55**	**0.473**	NS	NS	NS	160	0.87	0.079	NS	NS	NS	163	5.55	0.473	0.473
Aroclor 1260	SW8082A	11096-82-5	mg/kg	N/A	NS	**125**	**10.2**	NS	NS	NS	NS	20	1.7	NS	NS	NS	NS	125	10.2	10.2
Aroclor 1262	SW8082A	37324-23-5	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Aroclor 1268	SW8082A	11100-14-4	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chlorinated Pesticides																				
alpha-BHC	SW8081B	319-84-6	mg/kg	N/A	NS	**791**	NS	NS	NS	NS	NS	100	NS	NS	59	NS	NS	791	NS	791
beta-BHC	SW8081B	319-85-7	mg/kg	N/A	NS	**3.64**	**181**	NS	NS	NS	NS	0.46	24	NS	0.27	14	NS	3.64	181	3.64
delta-BHC	SW8081B	319-86-8	mg/kg	N/A	NS	**0.127**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.127	NS	0.127
gamma-BHC (Lindane)	SW8081B	58-89-9	mg/kg	N/A	**0.100**	**0.127**	**2.65**	NS	NS	NS	0.1	0.016	0.35	0.1	0.0095	0.21	0.100	0.127	2.65	0.100
Heptachlor	SW8081B	76-44-8	mg/kg	N/A	**0.408**	**0.909**	**4.35**	NS	NS	NS	0.4	0.11	0.59	0.4	0.059	0.3	0.408	0.91	4.35	0.408
Aldrin	SW8081B	309-00-2	mg/kg	N/A	NS	**1.82**	NS	NS	NS	NS	NS	0.074	NS	NS	0.037	NS	NS	1.82	NS	1.82
Heptachlor Epoxide	SW8081B	1024-57-3	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.152**	NS	NS	0.152	NS	0.152
Endosulfan I	SW8081B	959-98-8	mg/kg	N/A	NS	**1.36**	**47.3**	NS	NS	NS	NS	NS	NS	NS	0.119	NS	NS	1.36	47.3	1.36
Endosulfan II	SW8081B	33213-65-9	mg/kg	N/A	NS	**1.36**	**47.3**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.36	47.3	1.36
Dieldrin	SW8081B	60-57-1	mg/kg	N/A	**10.0**	**0.136**	**0.335**	NS	0.0049	0.022	10	0.0087	0.023	10	0.0049	0.022	10.0	0.136	0.335	0.136
4,4'-DDD	SW8081B	72-54-8	mg/kg	N/A	NS	**53.0**	**0.0757**	NS	0.021	0.093	NS	7.9	0.012	NS	NS	NS	NS	53.0	0.0757	0.0757
4,4'-DDE	SW8081B	72-55-9	mg/kg	N/A	NS	**82.0**	**2.27**	NS	0.021	0.093	NS	7.2	0.21	NS	NS	NS	NS	82.0	2.27	2.27
4,4'-DDT	SW8081B	50-29-3	mg/kg	N/A	**4.10**	**1.26**	**9.51**	NS	0.021	0.093	4.1	0.088	0.71	NS	NS	NS	4.10	1.26	9.51	1.26
Endrin	SW8081B	72-20-8	mg/kg	N/A	**0.0034**	**0.836**	**0.0473**	NS	NS	NS	0.0034	0.045	0.0028	0.003	0.023	0.0014	0.0034	0.836	0.0473	0.0034
Endrin Ketone	SW8081B	53494-70-5	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Endosulfan sulfate	SW8081B	1031-07-8	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.036**	NS	NS	0.036	NS	0.036
Methoxychlor	SW8081B	72-43-5	mg/kg	N/A	NS	**36.4**	**122**	NS	NS	NS	NS	9	31	NS	5.1	18	NS	36.4	122	36.4
Endrin aldehyde	SW8081B	7421-93-4	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
alpha-Chlordane	SW8081B	5103-71-9	mg/kg	N/A	**2.24**	**10.7**	**10.1**	NS	NS	NS	2.2	0.53	0.55	2.2	0.27	0.27	2.24	10.7	10.1	2.24
gamma-Chlordane	SW8081B	5103-74-2	mg/kg	N/A	**2.24**	**10.7**	**10.1**	NS	NS	NS	2.2	4.3	4.1	2.2	2.3	2.2	2.24	10.7	10.1	2.24
Toxaphene	SW8081B	8001-35-2	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	**11**	**7.8**	NS	5.9	4.1	NS	11	7.8	7.8
Anions																				
Nitrate as N	SW9056A	14797-55-8	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nitrite as N	SW9056A	14797-65-0	mg/kg	N/A	NS	**4610**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	4,610	NS	4,610
Bromide	SW9056A	24959-67-9	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chloride	SW9056A	16887-00-6	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Fluoride	SW9056A	16984-48-8	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	**1100**	**140**	NS	870	120	NS	1,100	140	140
Sulfate	SW9056A	14808-79-8	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Perchlorate																				
Perchlorate	SW6850	14797-73-0	mg/kg	N/A	NS	NS	NS	NS	NS	NS	**40**	**0.21**	**0.24**	NS	NS	NS	40.00	0.21	0.24	0.21
Dioxins/Furans																				
1,2,3,4,6,7,8-HpCDD	SW8290	35822-46-9	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1,2,3,4,6,7,8-HpCDF	SW8290	67562-39-4	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1,2,3,4,7,8,9-HpCDF	SW8290	55673-89-7	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1,2,3,4,7,8-HxCDD	SW8290	39227-28-6	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1,2,3,4,7,8-HxCDF	SW8290	70648-26-9	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1,2,3,6,7,8-HxCDD	SW8290	57653-85-7	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1,2,3,6,7,8-HxCDF	SW8290	57117-44-9	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1,2,3,7,8,9-HxCDD	SW8290	19408-74-3	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1,2,3,7,8,9-HxCDF	SW8290	72918-21-9	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Table 11.6 - Ecological Screening Levels in Soil

Analyte	Analytical Method[1]	CASRN	Units	Background Value[2]	NMED Ecological Screening Level[3, 4]			USEPA Eco SSLs[5]			LANL ESLs[6]			EPA Region 4 ESVs[7]			Selected ESL[8]			Most Protective of Selected ESL
					Plants	Deer Mouse	Horned Lark	Plants	Deer Mouse	Horned Lark	Terrestrial Plants	Deer Mouse	American Robin (Avian Omnivore)	Plants	Mammalian	Avian	Plants	Deer Mouse	Horned Lark	
Dioxins/Furans (Continued)																				
1,2,3,7,8-PeCDD	SW8290	40321-76-4	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1,2,3,7,8-PeCDF	SW8290	57117-41-6	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2,3,4,6,7,8-HxCDF	SW8290	60851-34-5	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2,3,4,7,8-PeCDF	SW8290	57117-31-4	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2,3,7,8-TCDD	SW8290	1746-01-6	mg/kg	N/A	NS	**0.00000511**	NS	NS	NS	NS	NS	5.8E-07	NS	NS	0.00000315	**0.000016**	NS	0.00000511	0.000016	0.00000511
2,3,7,8-TCDF	SW8290	51207-31-9	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
OCDD	SW8290	3268-87-9	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
OCDF	SW8290	39001-02-0	mg/kg	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

Bold indicates selected ESL.

1. Analytical Method - EPA Test Methods for Evaluating Solid Waste latest edition (the most current version of each method the laboratory is accredited to will be used).
2. FWDA background levels as taken from:
   - All metals except for arsenic - Table 8-1 from "Soil Background Study and Data Evaluation Report" (Shaw, 2010).
   - Arsenic - "*Evaluation of Background Levels for Arsenic in Soil* " (NMED, 2013b)
   - The antimony background level of 0.23 mg/kg is from soil unit 350ss as presented in Table 4-1 of the *Phase 2 Soil Background Report* (USACE, 2013).
3. NMED *Risk Assessment Guidance for Site Investigations and Remediation, Volume II - Soil Screening Guidance for Ecological Risk Assessments,* Appendix C. March 2017 Revised.
4. The most recent screening levels published by NMED at the time the risk evaluation is conducted will be used in the risk evaluation.
5. EPA ecological soil screening level (Eco-SSL). https://www.epa.gov/chemical-research/ecological-soil-screening-level
6. LANL ECORISK Database (Release 4.4). November 2024.
7. EPA Region 4 Ecological Screening Values (ESVs). *EPA Region 4 Ecological Risk Assessment Supplemental Guidance* . March 2018 Update.
8. The selected screening level shown in this table is for use in the Tier 1 screening level ecological risk assessment. Metals will be evaluated in the risk evaluation if the metal is found to be present at concentrations that are not consistent with background levels. If an NMED ESL is not available, additional screening levels sources were evaluated in the following hierarchy: USEPA Eco SSLs, LANL ESLs, and USEPA Region 4 ESVs.

Acronyms and Abbreviations:

CASRN = Chemical Abstracts Service Registry Number
DRO = Diesel-range organics
EPA = United States Environmental Protection Agency
ESL = Ecological Screening Level
ESV = Ecological Screening Value
FWDA = Fort Wingate Depot Activity
LANL = Los Alamos National Laboratory
mg/kg = Milligram per kilogram
N/A = Not applicable
NMED = New Mexico Environment Department
SSL = Soil Screening Level
NS = No standard
RCRA = Resource Conservation and Recovery Act
SIM = Selected ion mode
USEPA = United States Environmental Protection Agency

Table 11.7 – Comparison of Screening Levels in Soil to Laboratory Limits

Analyte	Screening Level Surrogate	Analytical Method	CASRN	Units	Background Value [1]	Selected Human Health Screening Value [2]	Selected Human Health Screening Value Source [2]	Selected Ecological Screening Value [3]	Achievable Laboratory Limits		
									LOQ	LOD	DL
RCRA Metals											
Arsenic	-	SW6020B	7440-38-2	mg/kg	5.60	5.83	Soil to GW SL	9.45	0.2	0.15	0.05
Barium (4)	-	SW6020B	7440-39-3	mg/kg	482	2,700	Soil to GW SL	118	0.4	0.3	0.15
Cadmium	-	SW6020B	7440-43-9	mg/kg	0.224	9.39	Soil to GW SL	6.95	0.1	0.075	0.025
Lead (5,6)	-	SW6020B	7439-92-1	mg/kg	12.4	200	HH SL	7.71	0.4	0.3	0.15
Mercury	-	SW7471B	7439-97-6	mg/kg	0.0300	2.09	Soil to GW SL	0.0899	0.017	0.013	0.0055
Selenium	-	SW6020B	7782-49-2	mg/kg	0.513	10.2	Soil to GW SL	0.52	0.2	0.15	0.05
Silver	-	SW6020B	7440-22-4	mg/kg	0.130	13.8	Soil to GW SL	10.4	0.1	0.075	0.025
Total Chromium (4)	-	SW6020B	7440-47-3	mg/kg	18.1	96.6	HH SL	12.6	0.6	0.45	0.25
Semi-Volatile Organic Compounds											
2,2-Oxybis(1-chloropropane)	-	SW8270E	108-60-1	mg/kg	N/A	0.0475	Soil to GW SL	NS	0.133	0.08	0.04
2,4,5-Trichlorophenol	-	SW8270E	95-95-4	mg/kg	N/A	66.2	Soil to GW SL	4	0.133	0.08	0.04
2,4,6-Trichlorophenol	-	SW8270E	88-06-2	mg/kg	N/A	0.674	Soil to GW SL	9.94	0.133	0.08	0.04
2,4-Dichlorophenol	-	SW8270E	120-83-2	mg/kg	N/A	0.825	Soil to GW SL	87.5	0.133	0.08	0.04
2,4-Dimethylphenol	-	SW8270E	105-67-9	mg/kg	N/A	6.45	Soil to GW SL	NS	0.267	0.16	0.08
2,4-Dinitrophenol	-	SW8270E	51-28-5	mg/kg	N/A	0.669	Soil to GW SL	0.061	1.33	1	0.6
2,4-Dinitrotoluene	-	SW8270E	121-14-2	mg/kg	N/A	0.0492	Soil to GW SL	6	0.267	0.16	0.08
2,6-Dinitrotoluene	-	SW8270E	606-20-2	mg/kg	N/A	0.0102	Soil to GW SL	16.1	0.133	0.08	0.04
2-Chloronaphthalene	-	SW8270E	91-58-7	mg/kg	N/A	57.0	Soil to GW SL	NS	0.133	0.08	0.04
2-Chlorophenol	-	SW8270E	95-57-8	mg/kg	N/A	1.15	Soil to GW SL	4.55	0.133	0.08	0.04
2-Methylphenol	-	SW8270E	95-48-7	mg/kg	N/A	15.1	Soil to GW SL	0.67	0.133	0.08	0.04
2-Nitroaniline	-	SW8270E	88-74-4	mg/kg	N/A	1.60	Soil to GW SL	27.3	0.267	0.16	0.08
2-Nitrophenol	-	SW8270E	88-75-5	mg/kg	N/A	NS		NS	0.133	0.08	0.04
3 & 4 Methylphenol	p-cresol	SW8270E	15831-10-4	mg/kg	N/A	5.94	Soil to GW SL	0.69	0.133	0.08	0.04
3,3'-Dichlorobenzidine	-	SW8270E	91-94-1	mg/kg	N/A	0.124	Soil to GW SL	0.646	0.667	0.4	0.2
3-Nitroaniline	4-Nitroaniline	SW8270E	99-09-2	mg/kg	N/A	0.316	Soil to GW SL	NS	0.267	0.16	0.08
4,6-Dinitro-2-Methylphenol	-	SW8270E	534-52-1	mg/kg	N/A	0.0398	Soil to GW SL	NS	1.33	1	0.65
4-Bromophenyl-phenyl ether	-	SW8270E	101-55-3	mg/kg	N/A	NS		NS	0.133	0.08	0.04
4-Chloro-3-Methylphenol	-	SW8270E	59-50-7	mg/kg	N/A	34.3	Soil to GW SL	NS	0.133	0.08	0.04
4-Chloroaniline	-	SW8270E	106-47-8	mg/kg	N/A	0.0311	Soil to GW SL	1	0.267	0.16	0.08
4-Chlorophenyl-phenyl ether	-	SW8270E	7005-72-3	mg/kg	N/A	NS		NS	0.133	0.08	0.04
4-Nitroaniline	-	SW8270E	100-01-6	mg/kg	N/A	0.316	Soil to GW SL	NS	0.667	0.4	0.2
4-Nitrophenol	-	SW8270E	100-02-7	mg/kg	N/A	NS		5.12	1.33	0.8	0.4
Benzaldehyde	-	SW8270E	100-52-7	mg/kg	N/A	0.829	Soil to GW SL	NS	0.267	0.16	0.08
Bis(2-Chloroethoxy)Methane	-	SW8270E	111-91-1	mg/kg	N/A	0.270	Soil to GW SL	NS	0.133	0.08	0.04
Bis(2-Chloroethyl)Ether	-	SW8270E	111-44-4	mg/kg	N/A	0.000605	Soil to GW SL	NS	0.133	0.08	0.04
Bis(2-Ethylhexyl)Phthalate	-	SW8270E	117-81-7	mg/kg	N/A	200	Soil to GW SL	5.2	0.333	0.2	0.1
Butylbenzylphthalate	-	SW8270E	85-68-7	mg/kg	N/A	47.3	Soil to GW SL	1,450	0.333	0.2	0.1

Table 11.7 – Comparison of Screening Levels in Soil to Laboratory Limits

Analyte	Screening Level Surrogate	Analytical Method	CASRN	Units	Background Value [1]	Selected Human Health Screening Value [2]	Selected Human Health Screening Value Source [2]	Selected Ecological Screening Value [3]	Achievable Laboratory Limits		
									LOQ	LOD	DL
Semi-Volatile Organic Compounds (Continued)											
Caprolactam	-	SW8270E	105-60-2	mg/kg	N/A	49.4	Soil to GW SL	NS	0.667	0.48	0.24
Carbazole	Fluorene	SW8270E	86-74-8	mg/kg	N/A	80.0	Soil to GW SL	207	0.133	0.08	0.04
Dibenzofuran	-	SW8270E	132-64-9	mg/kg	N/A	2.91	Soil to GW SL	6.17	0.133	0.08	0.04
Diethylphthalate	-	SW8270E	84-66-2	mg/kg	N/A	98	Soil to GW SL	100	0.267	0.16	0.08
Dimethylphthalate	-	SW8270E	131-11-3	mg/kg	N/A	NS		618	0.133	0.08	0.04
Di-N-Butylphthalate	-	SW8270E	84-74-2	mg/kg	N/A	33.8	Soil to GW SL	0.662	0.333	0.2	0.1
Di-n-Octylphthalate	-	SW8270E	117-84-0	mg/kg	N/A	630	HH SL	592	0.333	0.2	0.1
Hexachlorobenzene	-	SW8270E	118-74-1	mg/kg	N/A	0.189	Soil to GW SL	10.0	0.133	0.08	0.04
Hexachlorobutadiene	-	SW8270E	87-68-3	mg/kg	N/A	0.0413	Soil to GW SL	0.04	0.133	0.08	0.04
Hexachlorocyclopentadiene	-	SW8270E	77-47-4	mg/kg	N/A	2.30	HH SL	0.755	1.67	0.08	0.04
Hexachloroethane	-	SW8270E	67-72-1	mg/kg	N/A	0.0320	Soil to GW SL	0.6	0.133	0.08	0.04
Isophorone	-	SW8270E	78-59-1	mg/kg	N/A	4.23	Soil to GW SL	NS	0.133	0.08	0.04
Nitrobenzene	-	SW8270E	98-95-3	mg/kg	N/A	0.0144	Soil to GW SL	53.6	0.133	0.08	0.04
N-Nitroso-Di-N-Propylamine	-	SW8270E	621-64-7	mg/kg	N/A	0.00162	Soil to GW SL	NS	0.133	0.08	0.04
N-Nitrosodiphenylamine	-	SW8270E	86-30-6	mg/kg	N/A	10.0	Soil to GW SL	0.545	0.267	0.16	0.08
Pentachlorophenol	-	SW8270E	87-86-5	mg/kg	N/A	0.152	Soil to GW SL	5.00	1.67	0.8	0.4
Phenol	-	SW8270E	108-95-2	mg/kg	N/A	52.3	Soil to GW SL	0.79	0.267	0.16	0.08
Polycyclic Aromatic Hydrocarbons											
2-Methylnaphthalene	-	SW8270E	91-57-6	mg/kg	N/A	2.76	Soil to GW SL	100	0.133	0.08	0.04
Acenaphthene	-	SW8270E	83-32-9	mg/kg	N/A	83	Soil to GW SL	0.250	0.133	0.08	0.04
Acenaphthylene	Pyrene	SW8270E	208-96-8	mg/kg	N/A	192	Soil to GW SL	636	0.133	0.08	0.04
Anthracene	-	SW8270E	120-12-7	mg/kg	N/A	851	Soil to GW SL	6.88	0.133	0.08	0.04
Benzo(a)anthracene	-	SW8270E	56-55-3	mg/kg	N/A	0.64	Soil to GW SL	0.506	0.133	0.08	0.04
Benzo(a)pyrene	-	SW8270E	50-32-8	mg/kg	N/A	1.12	HH SL	50.7	0.133	0.08	0.04
Benzo(b)fluoranthene	-	SW8270E	205-99-2	mg/kg	N/A	1.53	HH SL	18.0	0.133	0.08	0.05
Benzo(k)fluoranthene	-	SW8270E	207-08-9	mg/kg	N/A	15.3	HH SL	65.4	0.133	0.08	0.04
Benzo(g,h,i)perylene	Pyrene	SW8270E	191-24-2	mg/kg	N/A	192	Soil to GW SL	65.4	0.133	0.08	0.04
Chrysene	-	SW8270E	218-01-9	mg/kg	N/A	153	HH SL	1.55	0.133	0.08	0.04
Dibenz(a,h)anthracene	-	SW8270E	53-70-3	mg/kg	N/A	0.153	HH SL	12.1	0.133	0.08	0.04
Fluoranthene	-	SW8270E	206-44-0	mg/kg	N/A	1,340	Soil to GW SL	114	0.133	0.08	0.04
Fluorene	-	SW8270E	86-73-7	mg/kg	N/A	80.0	Soil to GW SL	1,140	0.133	0.08	0.04
Indeno(1,2,3-cd)pyrene	-	SW8270E	193-39-5	mg/kg	N/A	1.53	HH SL	65.4	0.267	0.2	0.1
Naphthalene	-	SW8270E	91-20-3	mg/kg	N/A	0.0583	Soil to GW SL	1.00	0.133	0.08	0.04
Phenanthrene	-	SW8270E	85-01-8	mg/kg	N/A	85.9	Soil to GW SL	46.7	0.133	0.08	0.04
Pyrene	-	SW8270E	129-00-0	mg/kg	N/A	192	Soil to GW SL	68.2	0.133	0.08	0.04
2-Fluorobiphenyl (Surrogate)	-	SW8270E	321-60-8	mg/kg	N/A	N/A	N/A	N/A	0.066	0.04	0.02
Nitrobenzene-d5 (Surrogate)	-	SW8270E	4165-60-0	mg/kg	N/A	N/A	N/A	N/A	0.066	0.05	0.016

Table 11.7 – Comparison of Screening Levels in Soil to Laboratory Limits

Analyte	Screening Level Surrogate	Analytical Method	CASRN	Units	Background Value [1]	Selected Human Health Screening Value [2]	Selected Human Health Screening Value Source [2]	Selected Ecological Screening Value [3]	Achievable Laboratory Limits		
									LOQ	LOD	DL
Polycyclic Aromatic Hydrocarbons (Continued)											
Terphenyl-d14 (Surrogate)	-	SW8270E	1718-51-0	mg/kg	N/A	N/A	N/A	N/A	0.066	0.04	0.016
1-Methylnaphthalene	-	SW8270E SIM	90-12-0	mg/kg	N/A	0.893	Soil to GW SL	100	0.005	0.004	0.002
2-Methylnaphthalene	-	SW8270E SIM	91-57-6	mg/kg	N/A	2.76	Soil to GW SL	100	0.005	0.004	0.002
Acenaphthene	-	SW8270E SIM	83-32-9	mg/kg	N/A	83	Soil to GW SL	0.250	0.005	0.004	0.002
Acenaphthylene	Pyrene	SW8270E SIM	208-96-8	mg/kg	N/A	192	Soil to GW SL	636	0.005	0.004	0.002
Anthracene	-	SW8270E SIM	120-12-7	mg/kg	N/A	851	Soil to GW SL	6.88	0.005	0.004	0.002
Benzo(a)anthracene	-	SW8270E SIM	56-55-3	mg/kg	N/A	0.64	Soil to GW SL	0.506	0.005	0.004	0.002
Benzo(a)pyrene	-	SW8270E SIM	50-32-8	mg/kg	N/A	1.12	HH SL	50.7	0.005	0.004	0.002
Benzo(b)fluoranthene	-	SW8270E SIM	205-99-2	mg/kg	N/A	1.53	HH SL	18.0	0.005	0.004	0.002
Benzo(k)fluoranthene	-	SW8270E SIM	207-08-9	mg/kg	N/A	15.3	HH SL	65.4	0.005	0.004	0.002
Benzo(g,h,i)perylene	Pyrene	SW8270E SIM	191-24-2	mg/kg	N/A	192	Soil to GW SL	65.4	0.005	0.004	0.002
Chrysene	-	SW8270E SIM	218-01-9	mg/kg	N/A	153	HH SL	1.55	0.005	0.004	0.002
Dibenz(a,h)anthracene	-	SW8270E SIM	53-70-3	mg/kg	N/A	0.153	HH SL	12.1	0.005	0.004	0.002
Fluoranthene	-	SW8270E SIM	206-44-0	mg/kg	N/A	1,340	Soil to GW SL	114	0.005	0.004	0.002
Fluorene	-	SW8270E SIM	86-73-7	mg/kg	N/A	80.0	Soil to GW SL	1,140	0.005	0.004	0.002
Indeno(1,2,3-cd)pyrene	-	SW8270E SIM	193-39-5	mg/kg	N/A	1.53	HH SL	65.4	0.005	0.004	0.002
Naphthalene	-	SW8270E SIM	91-20-3	mg/kg	N/A	0.0583	Soil to GW SL	1.00	0.005	0.004	0.002
Phenanthrene	-	SW8270E SIM	85-01-8	mg/kg	N/A	85.9	Soil to GW SL	46.7	0.005	0.004	0.002
Pyrene	-	SW8270E SIM	129-00-0	mg/kg	N/A	192	Soil to GW SL	68.2	0.005	0.004	0.002
Volatile Organic Compounds											
1,1,1,2-Tetrachloroethane	-	SW8260D	630-20-6	mg/kg	N/A	0.0360	Soil to GW SL	225	0.005	0.004	0.001
1,1,1-Trichloroethane	-	SW8260D	71-55-6	mg/kg	N/A	51.1	Soil to GW SL	9,080	0.005	0.004	0.001
1,1,2,2-Tetrachloroethane	-	SW8260D	79-34-5	mg/kg	N/A	0.00481	Soil to GW SL	403	0.005	0.004	0.001
1,1,2-Trichloroethane	-	SW8260D	79-00-5	mg/kg	N/A	0.0268	Soil to GW SL	35.5	0.005	0.004	0.001
1,1-Dichloroethane	-	SW8260D	75-34-3	mg/kg	N/A	0.136	Soil to GW SL	3,470	0.005	0.004	0.001
1,1-Dichloroethene	-	SW8260D	75-35-4	mg/kg	N/A	1.95	Soil to GW SL	273	0.005	0.004	0.001
1,1-Dichloropropene	1,3-Dichloropropene	SW8260D	563-58-6	mg/kg	N/A	0.0281	Soil to GW SL	NS	0.005	0.004	0.001
1,2,3-Trichlorobenzene	-	SW8260D	87-61-6	mg/kg	N/A	0.418	Soil to GW SL	NS	0.005	0.004	0.002
1,2,3-Trichloropropane	-	SW8260D	96-18-4	mg/kg	N/A	0.0000582	Soil to GW SL	NS	0.005	0.004	0.001
1,2,4-Trichlorobenzene	-	SW8260D	120-82-1	mg/kg	N/A	3.10	Soil to GW SL	13.5	0.005	0.004	0.001
1,2,4-Trimethylbenzene	-	SW8260D	95-63-6	mg/kg	N/A	1.62	Soil to GW SL	NS	0.005	0.004	0.001
1,2-Dibromo-3-Chloropropane	-	SW8260D	96-12-8	mg/kg	N/A	0.00139	Soil to GW SL	NS	0.01	0.0075	0.0025
1,2-Dibromoethane	-	SW8260D	106-93-4	mg/kg	N/A	0.000352	Soil to GW SL	NS	0.005	0.004	0.001
1,2-Dichlorobenzene	-	SW8260D	95-50-1	mg/kg	N/A	9.08	Soil to GW SL	22.7	0.005	0.004	0.001
1,2-Dichloroethane	-	SW8260D	107-06-2	mg/kg	N/A	0.0238	Soil to GW SL	21.8	0.005	0.004	0.001
1,2-Dichloropropane	-	SW8260D	78-87-5	mg/kg	N/A	0.0277	Soil to GW SL	32.7	0.005	0.004	0.001
1,3,5-Trimethylbenzene	-	SW8260D	108-67-8	mg/kg	N/A	1.73	Soil to GW SL	NS	0.005	0.004	0.001

Table 11.7 – Comparison of Screening Levels in Soil to Laboratory Limits

Analyte	Screening Level Surrogate	Analytical Method	CASRN	Units	Background Value [1]	Selected Human Health Screening Value [2]	Selected Human Health Screening Value Source [2]	Selected Ecological Screening Value [3]	Achievable Laboratory Limits		
									LOQ	LOD	DL
Volatile Organic Compounds (Continued)											
1,3-Dichloropropane	-	SW8260D	142-28-9	mg/kg	N/A	2.57	Soil to GW SL	NS	0.005	0.004	0.001
1,3-Dichlorobenzene	1,4-Dichlorobenzene	SW8260D	541-73-1	mg/kg	N/A	1.12	Soil to GW SL	22.7	0.005	0.004	0.001
1,4-Dichlorobenzene	-	SW8260D	106-46-7	mg/kg	N/A	1.12	Soil to GW SL	22.7	0.005	0.004	0.001
2,2-Dichloropropane	1,2-Dichloropropane	SW8260D	594-20-7	mg/kg	N/A	0.0277	Soil to GW SL	NS	0.005	0.004	0.001
2-Butanone (MEK)	-	SW8260D	78-93-3	mg/kg	N/A	20.1	Soil to GW SL	16,100	0.02	0.015	0.005
2-Chlorotoluene	-	SW8260D	95-49-8	mg/kg	N/A	3.56	Soil to GW SL	NS	0.005	0.004	0.001
2-Hexanone	-	SW8260D	591-78-6	mg/kg	N/A	0.175	Soil to GW SL	4.73	0.02	0.015	0.005
4-Chlorotoluene	-	SW8260D	106-43-4	mg/kg	N/A	4.83	Soil to GW SL	NS	0.005	0.004	0.001
4-Methyl-2-Pentanone (MIBK)	-	SW8260D	108-10-1	mg/kg	N/A	4.8	Soil to GW SL	227	0.02	0.015	0.005
Acetone	-	SW8260D	67-64-1	mg/kg	N/A	49.8	Soil to GW SL	90.9	0.1	0.075	0.03
Benzene	-	SW8260D	71-43-2	mg/kg	N/A	0.0418	Soil to GW SL	240	0.005	0.004	0.001
Bromobenzene	-	SW8260D	108-86-1	mg/kg	N/A	0.842	Soil to GW SL	NS	0.005	0.004	0.001
Bromochloromethane	-	SW8260D	74-97-5	mg/kg	N/A	0.415	Soil to GW SL	NS	0.005	0.004	0.001
Bromodichloromethane	-	SW8260D	75-27-4	mg/kg	N/A	0.00621	Soil to GW SL	NS	0.005	0.004	0.001
Bromoform	-	SW8260D	75-25-2	mg/kg	N/A	0.147	Soil to GW SL	15.9	0.005	0.004	0.001
Bromomethane	-	SW8260D	74-83-9	mg/kg	N/A	0.0343	Soil to GW SL	0.24	0.01	0.0075	0.0025
Carbon Disulfide	-	SW8260D	75-15-0	mg/kg	N/A	4.42	Soil to GW SL	2.27	0.005	0.004	0.001
Carbon Tetrachloride	-	SW8260D	56-23-5	mg/kg	N/A	0.0367	Soil to GW SL	2.98	0.005	0.004	0.001
Chlorobenzene	-	SW8260D	108-90-7	mg/kg	N/A	1.08	Soil to GW SL	284	0.005	0.004	0.001
Chloroethane	-	SW8260D	75-00-3	mg/kg	N/A	107	Soil to GW SL	NS	0.01	0.0075	0.0025
Chloroform	-	SW8260D	67-66-3	mg/kg	N/A	0.0109	Soil to GW SL	136	0.005	0.004	0.001
Chloromethane	-	SW8260D	74-87-3	mg/kg	N/A	0.095	Soil to GW SL	NS	0.01	0.0075	0.0025
cis-1,2-Dichloroethene	-	SW8260D	156-59-2	mg/kg	N/A	0.352	Soil to GW SL	411	0.005	0.004	0.001
cis-1,3-Dichloropropene	1,3-Dichloropropene	SW8260D	10061-01-5	mg/kg	N/A	0.0281	Soil to GW SL	NS	0.005	0.0004	0.001
Dibromochloromethane	-	SW8260D	124-48-1	mg/kg	N/A	0.0076	Soil to GW SL	NS	0.005	0.004	0.001
Dibromomethane	-	SW8260D	74-95-3	mg/kg	N/A	0.0335	Soil to GW SL	NS	0.005	0.004	0.001
Dichlorodifluoromethane	-	SW8260D	75-71-8	mg/kg	N/A	7.23	Soil to GW SL	NS	0.01	0.0075	0.0025
Ethylbenzene	-	SW8260D	100-41-4	mg/kg	N/A	12.3	Soil to GW SL	5.16	0.005	0.004	0.001
Hexachlorobutadiene	-	SW8260D	87-68-3	mg/kg	N/A	0.0413	Soil to GW SL	0.04	0.005	0.004	0.001
Isopropylbenzene	-	SW8260D	98-82-8	mg/kg	N/A	11.4	Soil to GW SL	NS	0.005	0.004	0.001
Methyl acetate	-	SW8260D	79-20-9	mg/kg	N/A	71.1	Soil to GW SL	NS	0.01	0.0075	0.0025
m,p-Xylenes	Xylenes	SW8260D	179601-23-1	mg/kg	N/A	154	Soil to GW SL	19.1	0.005	0.004	0.001
Methyl Tert-Butyl Ether	-	SW8260D	1634-04-4	mg/kg	N/A	0.553	Soil to GW SL	NS	0.005	0.004	0.001
Methylene Chloride	-	SW8260D	75-09-2	mg/kg	N/A	0.471	Soil to GW SL	53.2	0.005	0.004	0.002
Naphthalene	-	SW8260D	91-20-3	mg/kg	N/A	0.0583	Soil to GW SL	1.00	0.005	0.004	0.001
n-Butylbenzene	-	SW8260D	104-51-8	mg/kg	N/A	64.6	Soil to GW SL	NS	0.005	0.004	0.001
n-Propylbenzene	-	SW8260D	103-65-1	mg/kg	N/A	24.5	Soil to GW SL	NS	0.005	0.004	0.001

Table 11.7 – Comparison of Screening Levels in Soil to Laboratory Limits

Analyte	Screening Level Surrogate	Analytical Method	CASRN	Units	Background Value [1]	Selected Human Health Screening Value [2]	Selected Human Health Screening Value Source [2]	Selected Ecological Screening Value [3]	Achievable Laboratory Limits		
									LOQ	LOD	DL
Volatile Organic Compounds (Continued)											
o-Xylene	-	SW8260D	95-47-6	mg/kg	N/A	2.98	Soil to GW SL	NS	0.005	0.004	0.001
4-Isopropyltoluene	Isopropylbenzene	SW8260D	99-87-6	mg/kg	N/A	11.4	Soil to GW SL	NS	0.005	0.004	0.001
Sec-Butylbenzene	-	SW8260D	135-98-8	mg/kg	N/A	117	Soil to GW SL	NS	0.005	0.004	0.001
Styrene	-	SW8260D	100-42-5	mg/kg	N/A	20.6	Soil to GW SL	3.20	0.005	0.004	0.001
Tert-Butylbenzene	-	SW8260D	98-06-6	mg/kg	N/A	31.1	Soil to GW SL	NS	0.005	0.004	0.001
Tetrachloroethene	-	SW8260D	127-18-4	mg/kg	N/A	0.321	Soil to GW SL	10	0.005	0.004	0.001
Toluene	-	SW8260D	108-88-3	mg/kg	N/A	12.1	Soil to GW SL	200	0.005	0.004	0.002
Trans-1,2-Dichloroethene	-	SW8260D	156-60-5	mg/kg	N/A	0.503	Soil to GW SL	411	0.005	0.004	0.001
Trans-1,3-Dichloropropene	1,3-Dichloropropene	SW8260D	10061-02-6	mg/kg	N/A	0.0281	Soil to GW SL	NS	0.005	0.004	0.001
Trichloroethene	-	SW8260D	79-01-6	mg/kg	N/A	0.0310	Soil to GW SL	909	0.005	0.004	0.001
Trichlorofluoromethane	-	SW8260D	75-69-4	mg/kg	N/A	15.7	Soil to GW SL	1,930	0.01	0.0075	0.0025
Vinyl Chloride	-	SW8260D	75-01-4	mg/kg	N/A	0.0134	Soil to GW SL	1.55	0.005	0.004	0.001
Explosives											
1,3,5-Trinitrobenzene	-	SW8330B	99-35-4	mg/kg	N/A	42.4	Soil to GW SL	0.3	0.1	0.075	0.04
1,3-Dinitrobenzene	-	SW8330B	99-65-0	mg/kg	N/A	0.0353	Soil to GW SL	1.03	0.1	0.075	0.025
2,4-Dinitrotoluene	-	SW8330B	121-14-2	mg/kg	N/A	0.0492	Soil to GW SL	6.00	0.1	0.075	0.025
2,6-Dinitrotoluene	-	SW8330B	606-20-2	mg/kg	N/A	0.0102	Soil to GW SL	16.1	0.15	0.1	0.05
2,4,6-Trinitrotoluene (TNT)	-	SW8330B	118-96-7	mg/kg	N/A	0.86	Soil to GW SL	46.1	0.1	0.075	0.025
2-Amino-4,6-Dinitrotoluene	-	SW8330B	35572-78-2	mg/kg	N/A	0.0230	Soil to GW SL	14.0	0.2	0.15	0.05
2-Nitrotoluene	-	SW8330B	88-72-2	mg/kg	N/A	0.0458	Soil to GW SL	81.0	0.2	0.15	0.05
3-Nitrotoluene	-	SW8330B	99-08-1	mg/kg	N/A	0.0250	Soil to GW SL	97.3	0.2	0.15	0.05
4-Amino-2,6-Dinitrotoluene	-	SW8330B	19406-51-0	mg/kg	N/A	0.0230	Soil to GW SL	33.0	0.1	0.075	0.025
4-Nitrotoluene	-	SW8330B	99-99-0	mg/kg	N/A	0.613	Soil to GW SL	178	0.2	0.15	0.05
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	-	SW8330B	121-82-4	mg/kg	N/A	0.0593	Soil to GW SL	11.2	0.2	0.15	0.05
Methyl-2,4,6-trinitrophenylnitramine (Tetryl)	-	SW8330B	479-45-8	mg/kg	N/A	5.59	Soil to GW SL	11.8	0.2	0.15	0.05
Nitrobenzene	-	SW8330B	98-95-3	mg/kg	N/A	0.0144	Soil to GW SL	53.6	0.3	0.25	0.075
Nitroglycerin	-	SW8330B	55-63-0	mg/kg	N/A	0.0136	Soil to GW SL	21.0	2	1.5	0.5
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	-	SW8330B	2691-41-0	mg/kg	N/A	19.4	Soil to GW SL	682	0.1	0.075	0.025
Pentaerythritol Tetranitrate (PETN)	-	SW8330B	78-11-5	mg/kg	N/A	5.18	Soil to GW SL	636	2	1.5	0.5
Total Petroleum Hydrocarbons											
DRO (C10-C28)	-	SW8015D	68334-30-5	mg/kg	N/A	13.2	Soil to GW SL	NS	10	8	4
DRO - Extended (C10-C36)	-	SW8015D	68334-30-5	mg/kg	N/A	13.2	Soil to GW SL	NS	10	8	4
RRO/ORO (C20-C38)	-	SW8015D	21274-30-0	mg/kg	N/A	13.2	Soil to GW SL	NS	10	8	4
PCBs											
Aroclor 1016	-	SW8082A	12674-11-2	mg/kg	N/A	2.01	Soil to GW SL	13.5	0.066	0.05	0.02
Aroclor 1221	-	SW8082A	11104-28-2	mg/kg	N/A	0.0143	Soil to GW SL	NS	0.066	0.05	0.05
Aroclor 1232	-	SW8082A	11141-16-5	mg/kg	N/A	0.0143	Soil to GW SL	NS	0.066	0.05	0.02
Aroclor 1242	-	SW8082A	53469-21-9	mg/kg	N/A	0.184	Soil to GW SL	0.51	0.066	0.05	0.02
Aroclor 1248	-	SW8082A	12672-29-6	mg/kg	N/A	0.181	Soil to GW SL	0.014	0.066	0.05	0.02

Table 11.7 – Comparison of Screening Levels in Soil to Laboratory Limits

Analyte	Screening Level Surrogate	Analytical Method	CASRN	Units	Background Value [1]	Selected Human Health Screening Value [2]	Selected Human Health Screening Value Source [2]	Selected Ecological Screening Value [3]	Achievable Laboratory Limits		
									LOQ	LOD	DL
PCBs (Continued)											
Aroclor 1254	-	SW8082A	11097-69-1	mg/kg	N/A	0.308	Soil to GW SL	0.473	0.066	0.05	0.02
Aroclor 1260	-	SW8082A	11096-82-5	mg/kg	N/A	0.83	Soil to GW SL	10.2	0.066	0.05	0.02
Aroclor 1262	-	SW8082A	37324-23-5	mg/kg	N/A	NS		NS	0.066	0.05	0.02
Aroclor 1268	-	SW8082A	11100-14-4	mg/kg	N/A	NS		NS	0.066	0.05	0.02
Chlorinated Pesticides											
alpha-BHC	-	SW8081B	319-84-6	mg/kg	N/A	0.00608	Soil to GW SL	791	0.0034	0.0025	0.001
beta-BHC	-	SW8081B	319-85-7	mg/kg	N/A	0.0213	Soil to GW SL	3.64	0.0034	0.0025	0.001
delta-BHC	beta-BHC	SW8081B	319-86-8	mg/kg	N/A	0.0213	Soil to GW SL	0.127	0.0034	0.0025	0.001
gamma-BHC (Lindane)	-	SW8081B	58-89-9	mg/kg	N/A	0.0364	Soil to GW SL	0.100	0.0034	0.0025	0.001
Heptachlor	-	SW8081B	76-44-8	mg/kg	N/A	0.497	Soil to GW SL	0.408	0.0034	0.0025	0.001
Aldrin	-	SW8081B	309-00-2	mg/kg	N/A	0.0049	Soil to GW SL	1.82	0.0034	0.0025	0.001
Heptachlor Epoxide	-	SW8081B	1024-57-3	mg/kg	N/A	0.00567	Soil to GW SL	0.152	0.0034	0.0025	0.001
Endosulfan I	Endosulfan	SW8081B	959-98-8	mg/kg	N/A	20.4	Soil to GW SL	1.36	0.0034	0.0025	0.001
Endosulfan II	Endosulfan	SW8081B	33213-65-9	mg/kg	N/A	20.4	Soil to GW SL	1.36	0.0034	0.0025	0.001
Dieldrin	-	SW8081B	60-57-1	mg/kg	N/A	0.0106	Soil to GW SL	0.136	0.0034	0.0025	0.001
4,4'-DDD	-	SW8081B	72-54-8	mg/kg	N/A	1.12	Soil to GW SL	0.0757	0.0034	0.0025	0.001
4,4'-DDE	-	SW8081B	72-55-9	mg/kg	N/A	1.63	Soil to GW SL	2.27	0.0034	0.0025	0.001
4,4'-DDT	-	SW8081B	50-29-3	mg/kg	N/A	11.6	Soil to GW SL	1.26	0.0034	0.0025	0.001
Endrin	-	SW8081B	72-20-8	mg/kg	N/A	1.35	Soil to GW SL	0.0034	0.0034	0.0025	0.001
Endrin Ketone	-	SW8081B	53494-70-5	mg/kg	N/A	NS		NS	0.0034	0.0025	0.001
Endosulfan sulfate	Endosulfan	SW8081B	1031-07-8	mg/kg	N/A	20.4	Soil to GW SL	0.036	0.0034	0.0025	0.001
Methoxychlor	-	SW8081B	72-43-5	mg/kg	N/A	40.0	Soil to GW SL	36.4	0.0034	0.0025	0.001
Endrin aldehyde	Endrin	SW8081B	7421-93-4	mg/kg	N/A	1.35	Soil to GW SL	NS	0.0034	0.0025	0.001
alpha-Chlordane	Chlordane	SW8081B	5103-71-9	mg/kg	N/A	2.03	Soil to GW SL	2.24	0.0034	0.0025	0.001
gamma-Chlordane	Chlordane	SW8081B	5103-74-2	mg/kg	N/A	2.03	Soil to GW SL	2.24	0.0034	0.0025	0.001
Toxaphene	-	SW8081B	8001-35-2	mg/kg	N/A	4.840	HH SL	7.8	0.134	0.1	0.035
Anions											
Nitrate as N	-	SW9056A	14797-55-8	mg/kg	N/A	425	Soil to GW SL	NS	5	2.5	1
Nitrite as N	-	SW9056A	14797-65-0	mg/kg	N/A	26.6	Soil to GW SL	4,610	5	2.5	1
Bromide	-	SW9056A	24959-67-9	mg/kg	N/A	NS		NS	5	4	2
Chloride	-	SW9056A	16887-00-6	mg/kg	N/A	NS		NS	30	25	13
Fluoride	-	SW9056A	16984-48-8	mg/kg	N/A	3,100	EPA RSL	140	5	4	2
Sulfate	-	SW9056A	14808-79-8	mg/kg	N/A	NS		NS	30	25	13
Perchlorate											
Perchlorate	-	SW6850	14797-73-0	mg/kg	N/A	0.117	Soil to GW SL	0.21	0.002	0.001	0.0005

Table 11.7 – Comparison of Screening Levels in Soil to Laboratory Limits

Analyte	Screening Level Surrogate	Analytical Method	CASRN	Units	Background Value [1]	Selected Human Health Screening Value [2]	Selected Human Health Screening Value Source [2]	Selected Ecological Screening Value [3]	Achievable Laboratory Limits		
									LOQ	LOD	DL
Dioxins/Furans											
1,2,3,4,6,7,8-HpCDD	-	SW8290	35822-46-9	mg/kg	N/A	0.00551	Soil to GW SL	NS	0.000005	0.000004	0.000002
1,2,3,4,6,7,8-HpCDF	-	SW8290	67562-39-4	mg/kg	N/A	0.00308	Soil to GW SL	NS	0.000005	0.000004	0.000002
1,2,3,4,7,8,9-HpCDF	-	SW8290	55673-89-7	mg/kg	N/A	0.00308	Soil to GW SL	NS	0.000005	0.000004	0.000002
1,2,3,4,7,8-HxCDD	-	SW8290	39227-28-6	mg/kg	N/A	0.00167	Soil to GW SL	NS	0.000005	0.000004	0.000002
1,2,3,4,7,8-HxCDF	-	SW8290	70648-26-9	mg/kg	N/A	0.000185	Soil to GW SL	NS	0.000005	0.000004	0.000002
1,2,3,6,7,8-HxCDD	-	SW8290	57653-85-7	mg/kg	N/A	0.00167	Soil to GW SL	NS	0.000005	0.000004	0.000002
1,2,3,6,7,8-HxCDF	-	SW8290	57117-44-9	mg/kg	N/A	0.000185	Soil to GW SL	NS	0.000005	0.000004	0.000002
1,2,3,7,8,9-HxCDD	-	SW8290	19408-74-3	mg/kg	N/A	0.00167	Soil to GW SL	NS	0.000005	0.000004	0.000002
1,2,3,7,8,9-HxCDF	-	SW8290	72918-21-9	mg/kg	N/A	0.000933	Soil to GW SL	NS	0.000005	0.000004	0.000002
1,2,3,7,8-PeCDD	-	SW8290	40321-76-4	mg/kg	N/A	0.0000998	Soil to GW SL	NS	0.000005	0.000004	0.000002
1,2,3,7,8-PeCDF	-	SW8290	57117-41-6	mg/kg	N/A	0.00186	Soil to GW SL	NS	0.000005	0.000004	0.000002
2,3,4,6,7,8-HxCDF	-	SW8290	60851-34-5	mg/kg	N/A	0.000933	Soil to GW SL	NS	0.000005	0.000004	0.000002
2,3,4,7,8-PeCDF	-	SW8290	57117-31-4	mg/kg	N/A	0.000186	Soil to GW SL	NS	0.000005	0.000004	0.000002
2,3,7,8-TCDD	-	SW8290	1746-01-6	mg/kg	N/A	0.000049	HH SL	0.00000511	0.000001	0.0000008	0.0000002
2,3,7,8-TCDF	-	SW8290	51207-31-9	mg/kg	N/A	0.00000769	Soil to GW SL	NS	0.000001	0.0000008	0.0000006
OCDD	-	SW8290	3268-87-9	mg/kg	N/A	1.55	Soil to GW SL	NS	0.000015	0.0000132	0.0000132
OCDF	-	SW8290	39001-02-0	mg/kg	N/A	0.868	Soil to GW SL	NS	0.00001	0.000008	0.000005

Notes:

1. Selected FWDA background values are presented in Table 8-1 from Soil Background Study and Data Evaluation Report (Shaw, 2010), except arsenic:
   - The arsenic background reference value is 5.6 mg/kg per Evaluation of Background Levels for Arsenic in Soil (NMED, 2013b). If the maximum arsenic concentration is greater than 5.6 mg/kg, then the range of arsenic concentrations in the sample data set is to be compared to the range of arsenic concentrations in the site-specific background data set (0.2 mg/kg to 11.2 mg/kg).
2. The human health screening value is lower value between the following screening levels:
   -NMED direct contact screening level (for residents, industrial/occupational workers, and construction workers; if there is no NMED direct contact screening level, the lowest EPA RSL was selected for a target excess cancer risk level of 1 x 10-5 or target noncancer hazard quotient of 1.0);
   -NMED groundwater protection SSL (via NMED Risk Assessment Guidance for Site Investigations and Remediation, November 2022 Revised, Appendix A, Table A-3, risk-based SSL and NMGW/MCL-based SSL, and Table 6-4 for petroleum hydrocarbon mixtures, DAF=20; if there is no NMED groundwater protection SSL. A site-specific Risk-Based RSL for Soil to Groundwater was calculated using the USEPA RSL Calculator (TR=1E-05, HQ=1, November 2024), The most recent screening levels published by NMED and USEPA at the time the risk evaluation is conducted will be used in the risk evaluation.
3. The ecological screening value is the lowest ESL for deer mouse, horned lark, and plants from Tables C-1, C-2, and C-6, respectively, via NMED Risk Assessment Guidance for Site Investigations and Remediation, Volume II - Soil Screening Guidance for Ecological Risk Assessments, Appendix C, March 2017 Revised.
4. The background value is greater than the ecological screening value.
5. The background value greater than the human health screening value.

6. Lead human health screening levels appear in the non-cancer column, but the health effects of lead are not correlated with the typical carcinogenic or non-carcinogenic dose-based toxicity values that characterize other chemicals. Instead, the screening level for lead is based on a modeled concentration in soil that results in an acceptable blood lead level protective of adverse developmental health effects (USEPA, 2024).

Cells shaded in blue show that the screening level is lower than the achievable LOQ. These analytes will be further evaluated in Table 11.8.

Table 11.7 – Comparison of Screening Levels in Soil to Laboratory Limits

Analyte	Screening Level Surrogate	Analytical Method	CASRN	Units	Background Value [1]	Selected Human Health Screening Value [2]	Selected Human Health Screening Value Source [2]	Selected Ecological Screening Value [3]	Achievable Laboratory Limits		
									LOQ	LOD	DL

Acronyms and Abbreviations:

CASRN = Chemical Abstracts Service Registry Number
DAF = Dilution attenuation factor
DL = Detection limit
DRO = Diesel-range organics
EPA = United States Environmental Protection Agency
FWDA = Fort Wingate Depot Activity
HQ = Hazard quotient
LOD = Limit of detection
LOQ = Limit of quantitation
mg/kg = Milligram per kilogram
N/A = Not applicable
NMED = New Mexico Environment Department
NS = No screening value available
RCRA - Resource Conservation and Recovery Act

Table 11.8 – Evaluation of Analytes with LOQs Greater than Screening Levels

Analyte	Screening Level Surrogate	Analytical Method [1]	CASRN	Units	Background Value [2]	Lowest Human Health Screening Level Direct Contact [3]	Highest Human Health Screening Level - Groundwater Protection [4]	Most Protective Ecological Screening Level [5]	Lowest Screening Level (Human Health or Ecological) [6]	Lowest Screening Level for Risk Screening Evaluation Source	Achievable Laboratory Limits			Is this an issue (Y or N)? [6]	Justification
											LOQ	LOD	DL		
Semi-Volatile Organic Compounds															
2,2-Oxybis(1-chloropropane)	-	SW8270E	108-60-1	mg/kg	N/A	99.3	0.0475	NS	0.0475	Soil to GW SL	0.133	0.08	0.04	N	LOQ met for direct contact screening level
2,4-Dinitrophenol	-	SW8270E	51-28-5	mg/kg	N/A	123	0.669	0.061	0.061	Eco	1.33	1	0.6	N	LOQ met for direct contact screening level
2,4-Dinitrotoluene	-	SW8270E	121-14-2	mg/kg	N/A	17.1	0.0492	6	0.0492	Soil to GW SL	0.267	0.16	0.08	N	LOQ met for direct contact screening level
2,6-Dinitrotoluene	-	SW8270E	606-20-2	mg/kg	N/A	3.56	0.0102	16.1	0.0102	Soil to GW SL	0.133	0.08	0.04	N	LOQ met for direct contact screening level
3,3'-Dichlorobenzidine	-	SW8270E	91-94-1	mg/kg	N/A	11.8	0.124	0.646	0.124	Soil to GW SL	0.667	0.4	0.2	N	LOQ met for direct contact screening level
4,6-Dinitro-2-Methylphenol	-	SW8270E	534-52-1	mg/kg	N/A	4.93	0.0398	NS	0.0398	Soil to GW SL	1.33	1	0.65	N	LOQ met for direct contact screening level
4-Chloroaniline	-	SW8270E	106-47-8	mg/kg	N/A	27	0.0311	1	0.0311	Soil to GW SL	0.267	0.16	0.08	N	LOQ met for direct contact screening level
4-Nitroaniline	-	SW8270E	100-01-6	mg/kg	N/A	250	0.316	NS	0.316	Soil to GW SL	0.667	0.4	0.2	N	LOQ met for direct contact screening level
Bis(2-Chloroethyl)Ether	-	SW8270E	111-44-4	mg/kg	N/A	1.95	0.000605	NS	0.000605	Soil to GW SL	0.133	0.08	0.04	N	LOQ met for direct contact screening level
Hexachlorobutadiene	-	SW8270E	87-68-3	mg/kg	N/A	52.1	0.0413	0.04	0.04	Eco	0.133	0.08	0.04	N	LOQ met for direct contact screening level
Hexachlorocyclopentadiene	-	SW8270E	77-47-4	mg/kg	N/A	52.1	0.0413	0.755	0.755	Eco	1.67	0.08	0.04	N	LOQ met for direct contact screening level
Hexachloroethane	-	SW8270E	67-72-1	mg/kg	N/A	43.1	0.032	0.6	0.032	Soil to GW SL	0.133	0.08	0.04	N	LOQ met for direct contact screening level
Nitrobenzene	-	SW8270E	98-95-3	mg/kg	N/A	60.4	0.0144	53.6	0.0144	Soil to GW SL	0.133	0.08	0.04	N	LOQ met for direct contact screening level
N-Nitroso-Di-N-Propylamine	-	SW8270E	621-64-7	mg/kg	N/A	0.78	0.00162	NS	0.00162	Soil to GW SL	0.133	0.08	0.04	N	LOQ met for direct contact screening level
Pentachlorophenol	-	SW8270E	87-86-5	mg/kg	N/A	9.85	0.152	5	0.152	Soil to GW SL	1.67	0.8	0.4	N	LOQ met for direct contact screening level
Polycyclic Aromatic Hydrocarbons															
Naphthalene	-	SW8270E	91-20-3	mg/kg	N/A	22.6	0.0583	1.00	0.0583	Soil to GW SL	0.133	0.08	0.04	N	LOQ met for direct contact screening level
Volatile Organic Compounds															
1,1,2,2-Tetrachloroethane	-	SW8260D	79-34-5	mg/kg	N/A	7.98	0.00481	403	0.00481	Soil to GW SL	0.005	0.004	0.001	N	LOQ met for direct contact screening level
1,2,3-Trichloropropane	-	SW8260D	96-18-4	mg/kg	N/A	0.051	0.0000582	NS	0.0000582	Soil to GW SL	0.005	0.004	0.001	N	LOQ met for direct contact screening level
1,2-Dibromo-3-Chloropropane	-	SW8260D	96-12-8	mg/kg	N/A	0.0858	0.00139	NS	0.00139	Soil to GW SL	0.01	0.0075	0.0025	N	LOQ met for direct contact screening level
1,2-Dibromoethane	-	SW8260D	106-93-4	mg/kg	N/A	0.672	0.000352	NS	0.000352	Soil to GW SL	0.005	0.004	0.001	N	LOQ met for direct contact screening level
Explosives															
1,3-Dinitrobenzene	-	SW8330B	99-65-0	mg/kg	N/A	6.30	0.0353	1.03	0.0353	Soil to GW SL	0.1	0.075	0.025	N	LOQ met for direct contact screening level
2,4-Dinitrotoluene	-	SW8330B	121-14-2	mg/kg	N/A	17.1	0.0492	6.00	0.0492	Soil to GW SL	0.1	0.075	0.025	N	LOQ met for direct contact screening level
2,6-Dinitrotoluene	-	SW8330B	606-20-2	mg/kg	N/A	3.56	0.0102	16.1	0.0102	Soil to GW SL	0.15	0.1	0.05	N	LOQ met for direct contact screening level
2-Amino-4,6-Dinitrotoluene	-	SW8330B	35572-78-2	mg/kg	N/A	7.70	0.0230	14.0	0.0230	Soil to GW SL	0.2	0.15	0.05	N	LOQ met for direct contact screening level
2-Nitrotoluene	-	SW8330B	88-72-2	mg/kg	N/A	31.6	0.0458	81.0	0.0458	Soil to GW SL	0.2	0.15	0.05	N	LOQ met for direct contact screening level
3-Nitrotoluene	-	SW8330B	99-08-1	mg/kg	N/A	6.16	0.0250	97.3	0.0250	Soil to GW SL	0.2	0.15	0.05	N	LOQ met for direct contact screening level
4-Amino-2,6-Dinitrotoluene	-	SW8330B	19406-51-0	mg/kg	N/A	7.64	0.0230	33.0	0.0230	Soil to GW SL	0.1	0.075	0.025	N	LOQ met for direct contact screening level
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	-	SW8330B	121-82-4	mg/kg	N/A	83.1	0.0593	11.2	0.0593	Soil to GW SL	0.2	0.15	0.05	N	LOQ met for direct contact screening level
Nitrobenzene	-	SW8330B	98-95-3	mg/kg	N/A	60.4	0.0144	53.6	0.0144	Soil to GW SL	0.3	0.25	0.075	N	LOQ met for direct contact screening level
Nitroglycerin	-	SW8330B	55-63-0	mg/kg	N/A	6.16	0.0136	21.0	0.0136	Soil to GW SL	2	1.5	0.5	N	LOQ met for direct contact screening level

Table 11.8 – Evaluation of Analytes with LOQs Greater than Screening Levels

Analyte	Screening Level Surrogate	Analytical Method [1]	CASRN	Units	Background Value [2]	Lowest Human Health Screening Level Direct Contact [3]	Highest Human Health Screening Level - Groundwater Protection [4]	Most Protective Ecological Screening Level [5]	Lowest Screening Level (Human Health or Ecological) [6]	Lowest Screening Level for Risk Screening Evaluation Source	Achievable Laboratory Limits			Is this an issue (Y or N)? [6]	Justification
											LOQ	LOD	DL		
PCBs															
Aroclor 1221	-	SW8082A	11104-28-2	mg/kg	N/A	1.81	0.0143	NS	0.0143	Soil to GW SL	0.066	0.05	0.05	N	LOQ met for direct contact screening level
Aroclor 1232	-	SW8082A	11141-16-5	mg/kg	N/A	1.86	0.0143	NS	0.0143	Soil to GW SL	0.066	0.05	0.02	N	LOQ met for direct contact screening level
Aroclor 1248	-	SW8082A	12672-29-6	mg/kg	N/A	2.43	0.181	0.014	0.014	Eco	0.066	0.05	0.02	N	LOQ met for direct contact screening level

Notes:

1. Analytical Method - EPA Test Methods for Evaluating Solid Waste latest edition (the most current version of each method the laboratory is accredited to will be used).
2. Selected FWDA background values are presented in Table 8-1 from Soil Background Study and Data Evaluation Report (Shaw, 2010), except arsenic and antimony:
3. The lowest of the NMED direct contact soil screening levels for residents, industiral/occupational workers, and construction workers (or lowest soil EPA RSL [target excess cancer risk level of 1x10-5 or hazard quotient of 1.0] if there is no NMED screening level).
4. The highest SL-SSL for a chemical based on a DAF of 20 is listed in Table A-1 of the Humam Health NMED Risk Assessment Guidance (NMED, 2022). This approach maintains the conservative approach of the SL-SSL methodology, is protective of groundwater quality under a wide range of site conditions and complies with the groundwater protection requirements in 20.6.2 NMAC (NMED, 2022).
5. Lowest Ecological Screening Level of plants, Deer Mouse, and Horned Lark via NMED Risk Assessment Guidance for Site Investigations and Remediation, Volume II - Soil Screening Guidance for Ecological Risk Assessments, Appendix C. March 2017 Revised.
6. The most recent screening levels published by NMED and USEPA at the time the risk evaluation is conducted will be used in the risk evaluation.

Acronyms and Abbreviations:

CASRN = Chemical Abstracts Service Registry Number
DL = Detection limit
LOD = Limit of detection
LOQ = Limit of quantitation
mg/kg = Milligram per kilogram
SIM = Selected ion mode
SL = Screening Level

FIGURES

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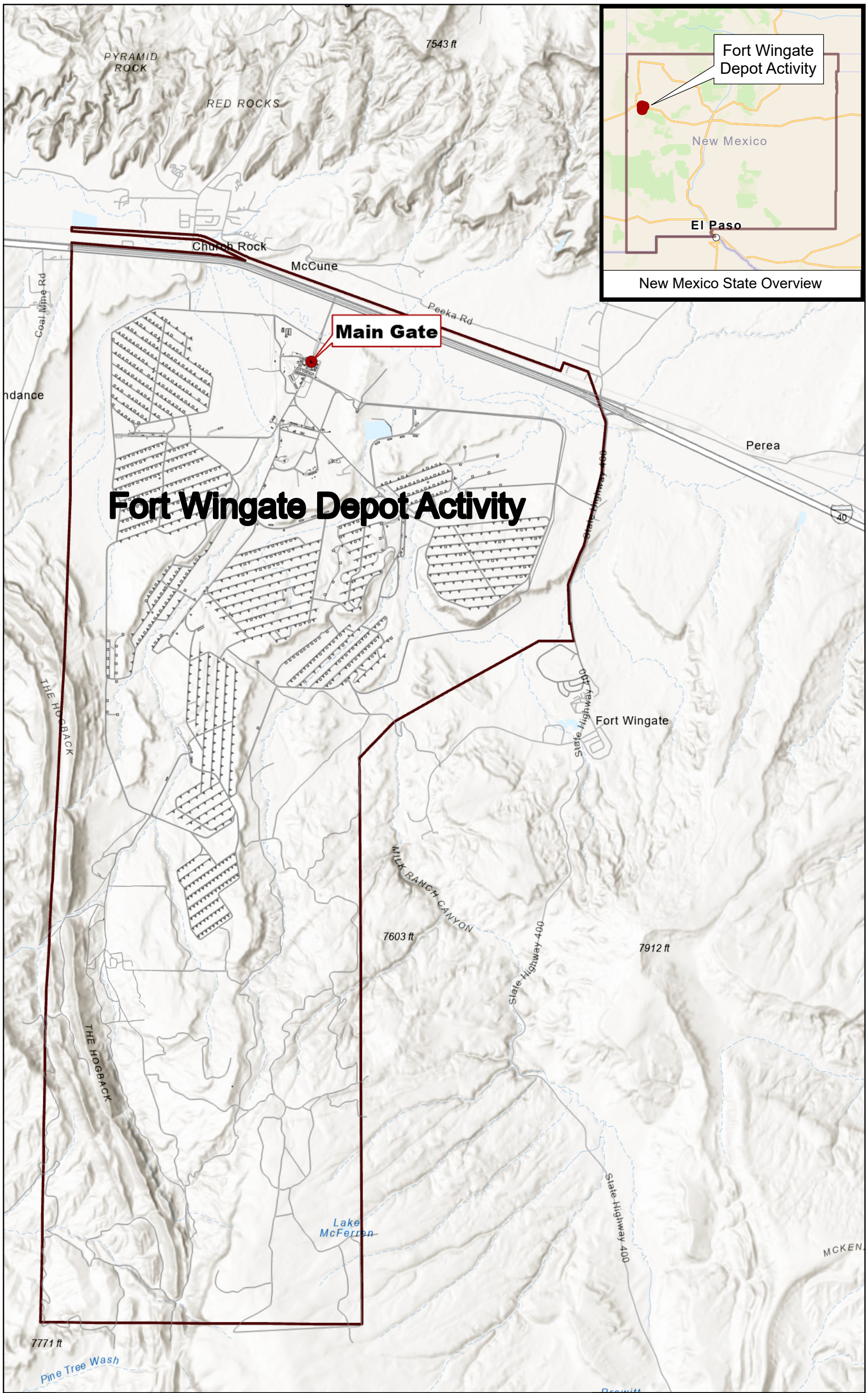

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Notes	Supplemental RCRA Facility Investigation Work Plan Parcel 6, Fort Wingate Depot Activity, McKinley County, NM			
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Basemap: Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, USFWS, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies,		PM	CR	3/26/2025

N

FIGURE 1.1

Facility Location Map

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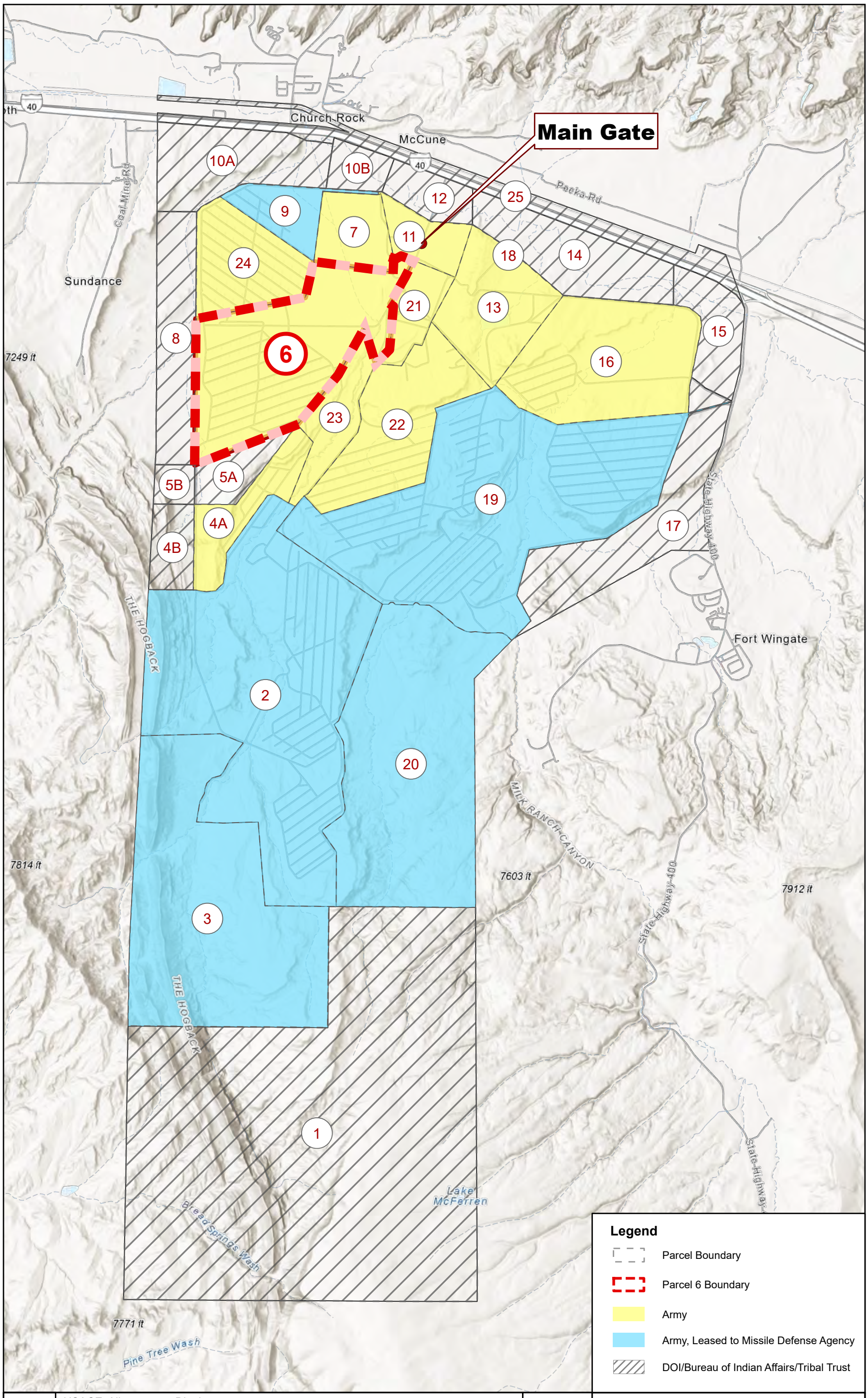

Client	USACE, Albuquerque District			
Notes	Supplemental RCRA Facility Investigation Work Plan Parcel 6, Fort Wingate Depot Activity, McKinley County, NM			
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Basemap: Esri, NASA, NGA, USGS, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and		CR	CR	8/26/2026

N

FIGURE 1.2

Parcel Map

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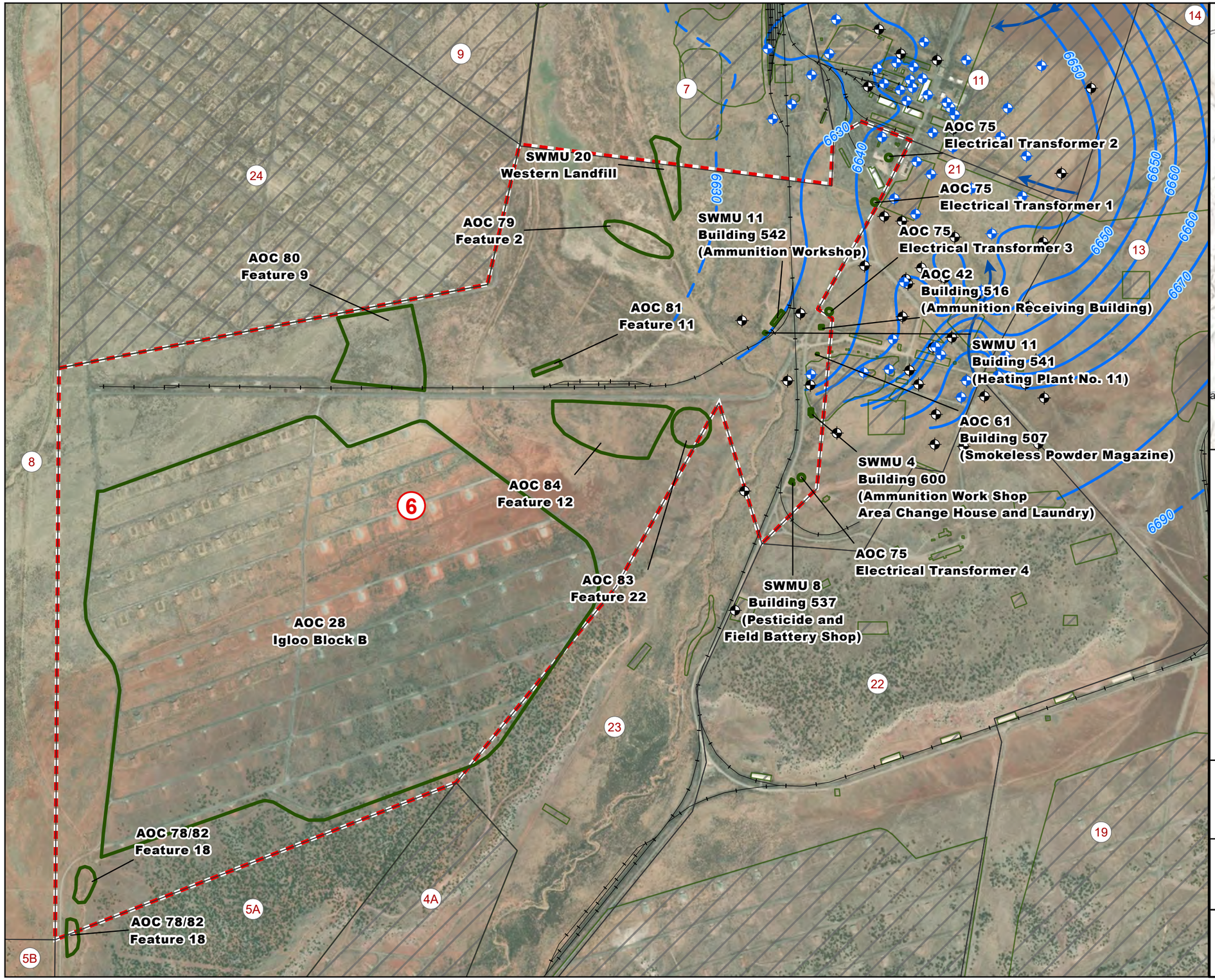

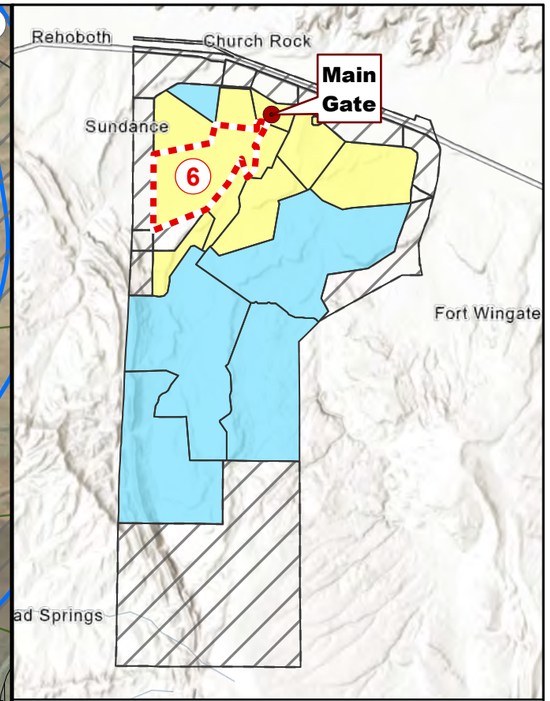

Legend

- Active Groundwater Monitoring Well
- Active Bedrock Well
- Groundwater Elevation, feet amsl (April 2023)
- Approximate Groundwater Flow Direction (Fall 2019)
- AOC/SWMU Boundary
- AOC/SWMU Boundary (not included in Parcel 6)
- Parcel 6 Boundary

Note:
AOC = Area of Concern
SWMU = Solid Waste Management Unit

0 750 1,500 Feet

N

Supplemental RCRA Facility Investigation Work Plan Parcel 6
Fort Wingate Depot Activity,
McKinley County, NM

FIGURE 1.3

Parcel 6 SWMU and AOC Locations

Client	USACE, Albuquerque District	GIS by	DB	8/26/2026
		Checked by	JH	8/26/2026
		PM	CR	8/26/2026

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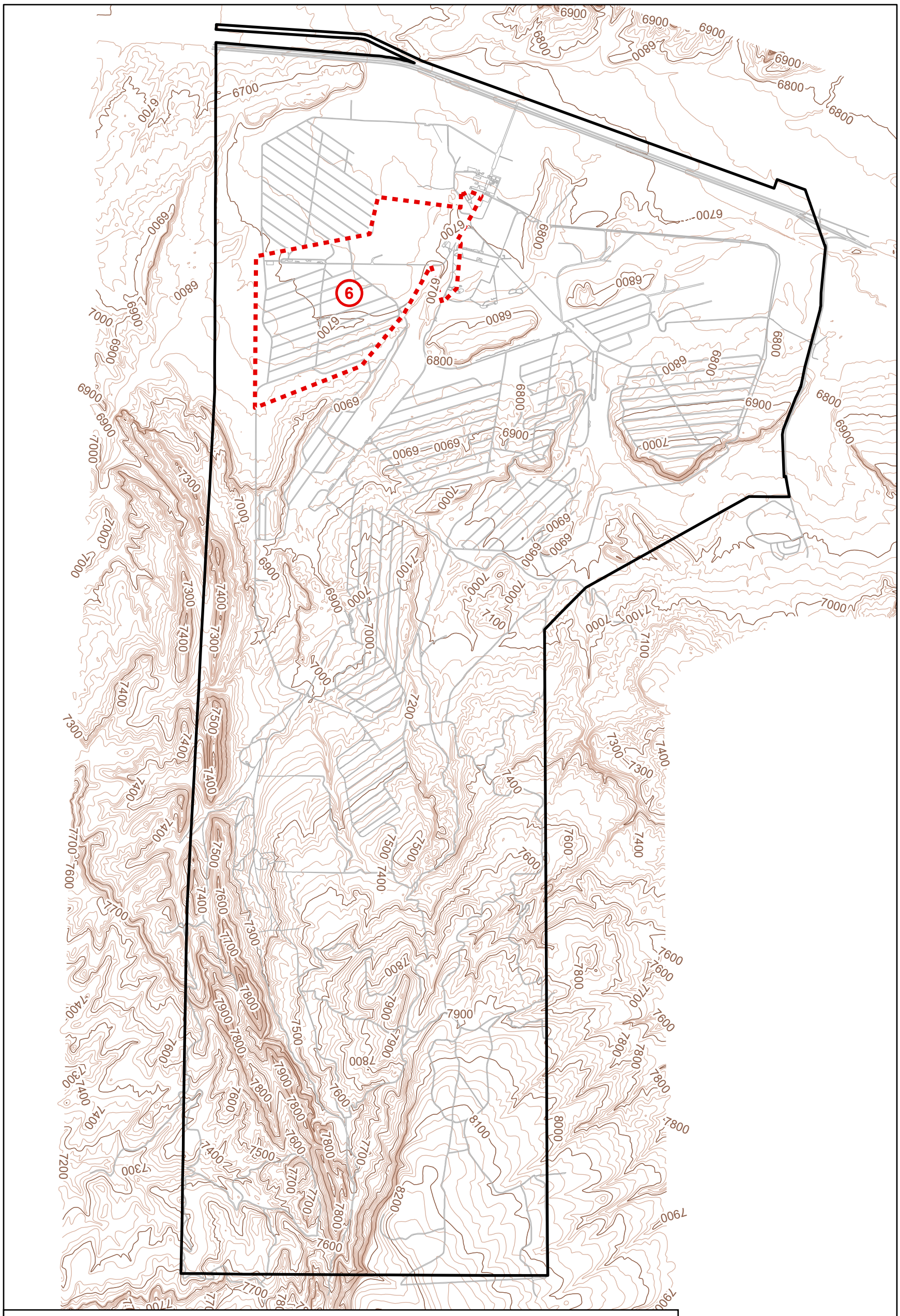

Legend

- 100-Foot Topographic Contour Line
- 20-Foot Topographic Contour Line
- FWDA Boundary
- FWDA Roads
- Parcel 6 Boundary
- 6 Parcel Number

Client	USACE, Albuquerque District			
Notes	Supplemental RCRA Facility Investigation Work Plan Parcel 6, Fort Wingate Depot Activity, McKinley County, NM			
Revised	5/29/2025	GIS by	AM	5/29/2025
Scale	1:50,000	Checked by	LR	5/29/2025
Source: Amec Foster Wheeler, 2018		PM	CR	5/29/2025

N

FIGURE 2.1

Facility-Wide Topographic Map

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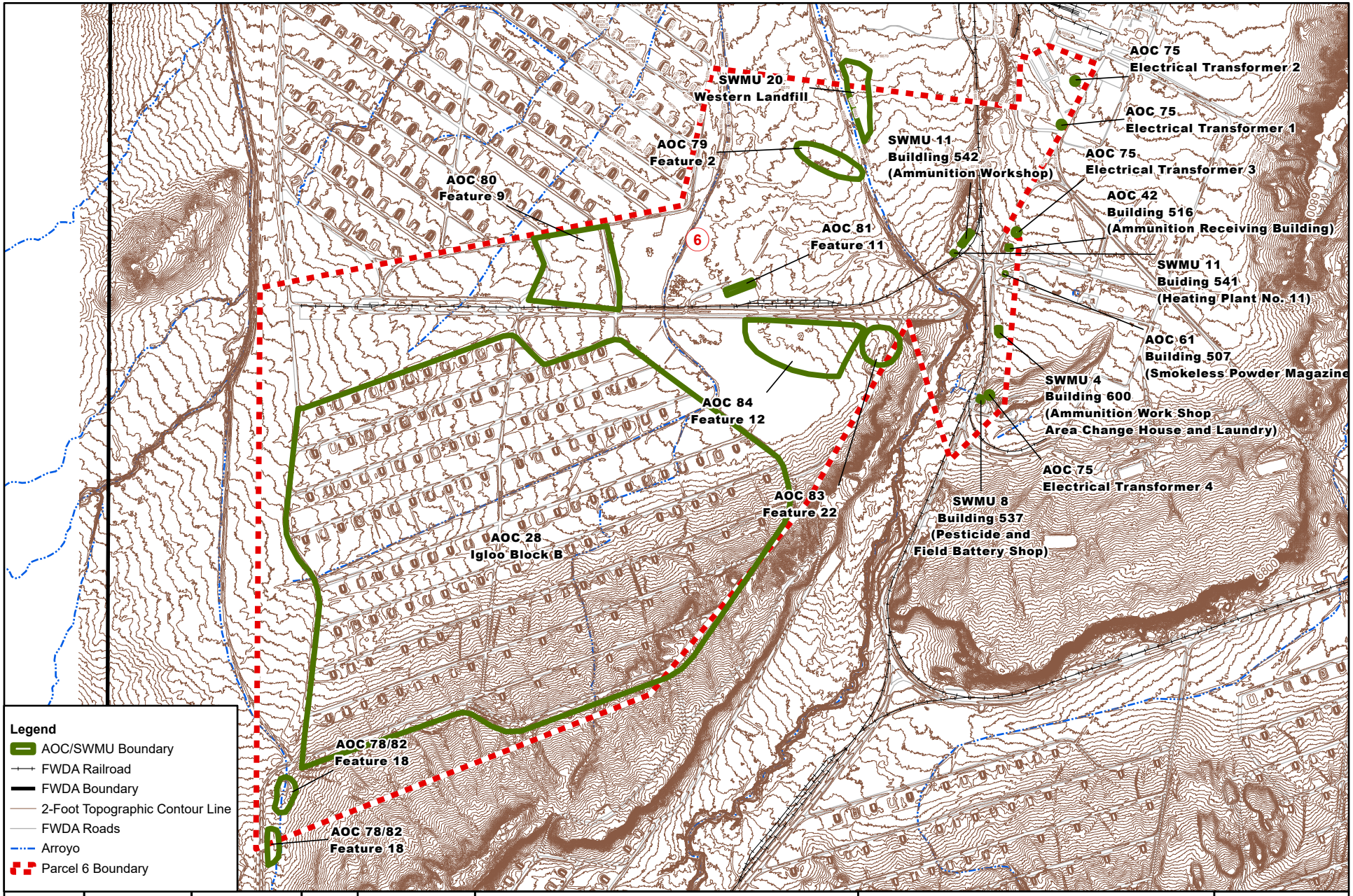

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		Checked by	LR	5/29/2025		**Parcel 6 Topographic Map**
		PM	CR	5/29/2025		FIGURE **2.2**

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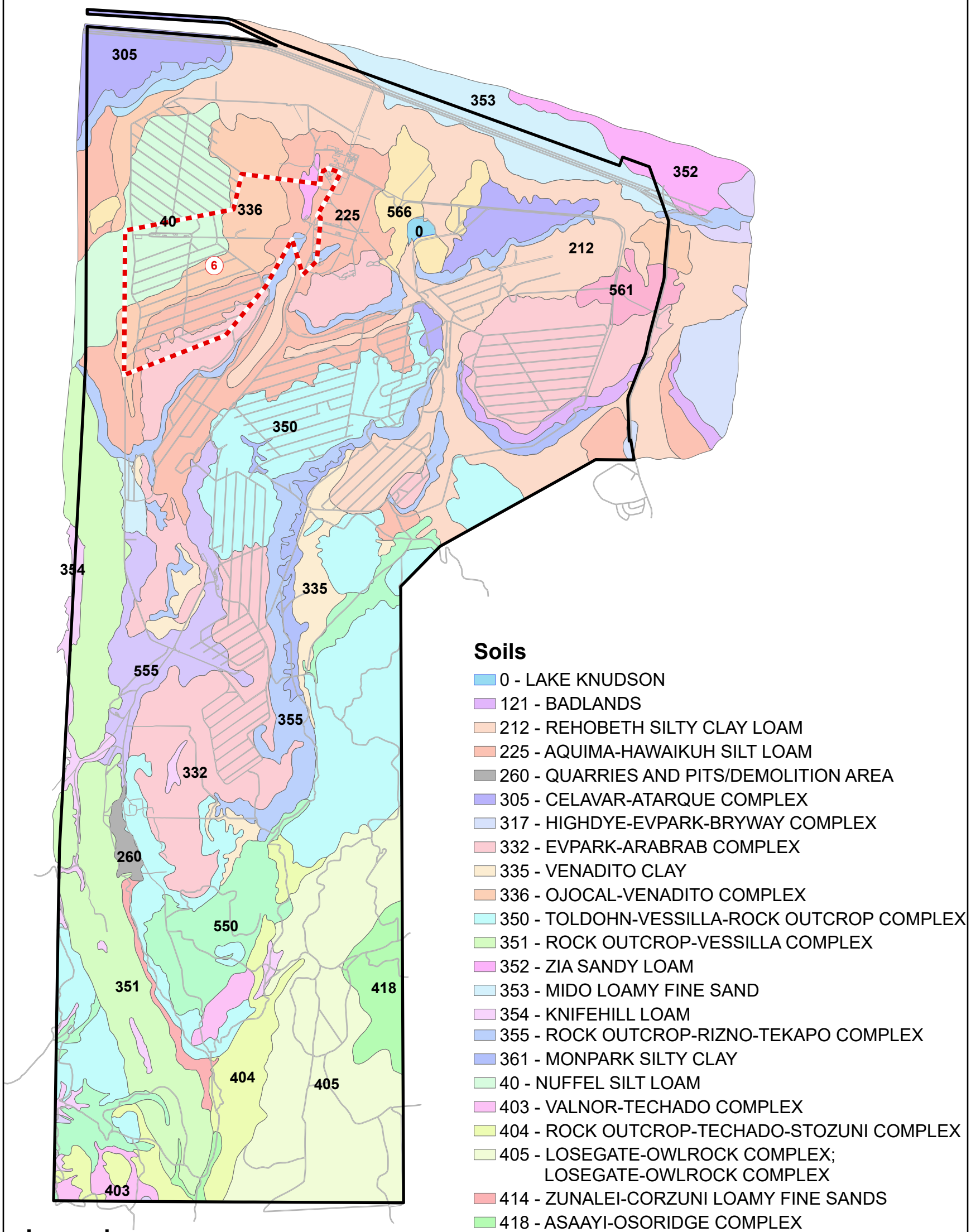

Client	USACE, Albuquerque District			
Notes	Supplemental RCRA Facility Investigation Work Plan Parcel 6, Fort Wingate Depot Activity, McKinley County, NM			
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Scale	1:56,560	Checked by	LR	3/26/2025
Source: Amec Foster Wheeler, 2018		PM	CR	3/26/2025

N

FIGURE 2.3

Facility-Wide Soils Map

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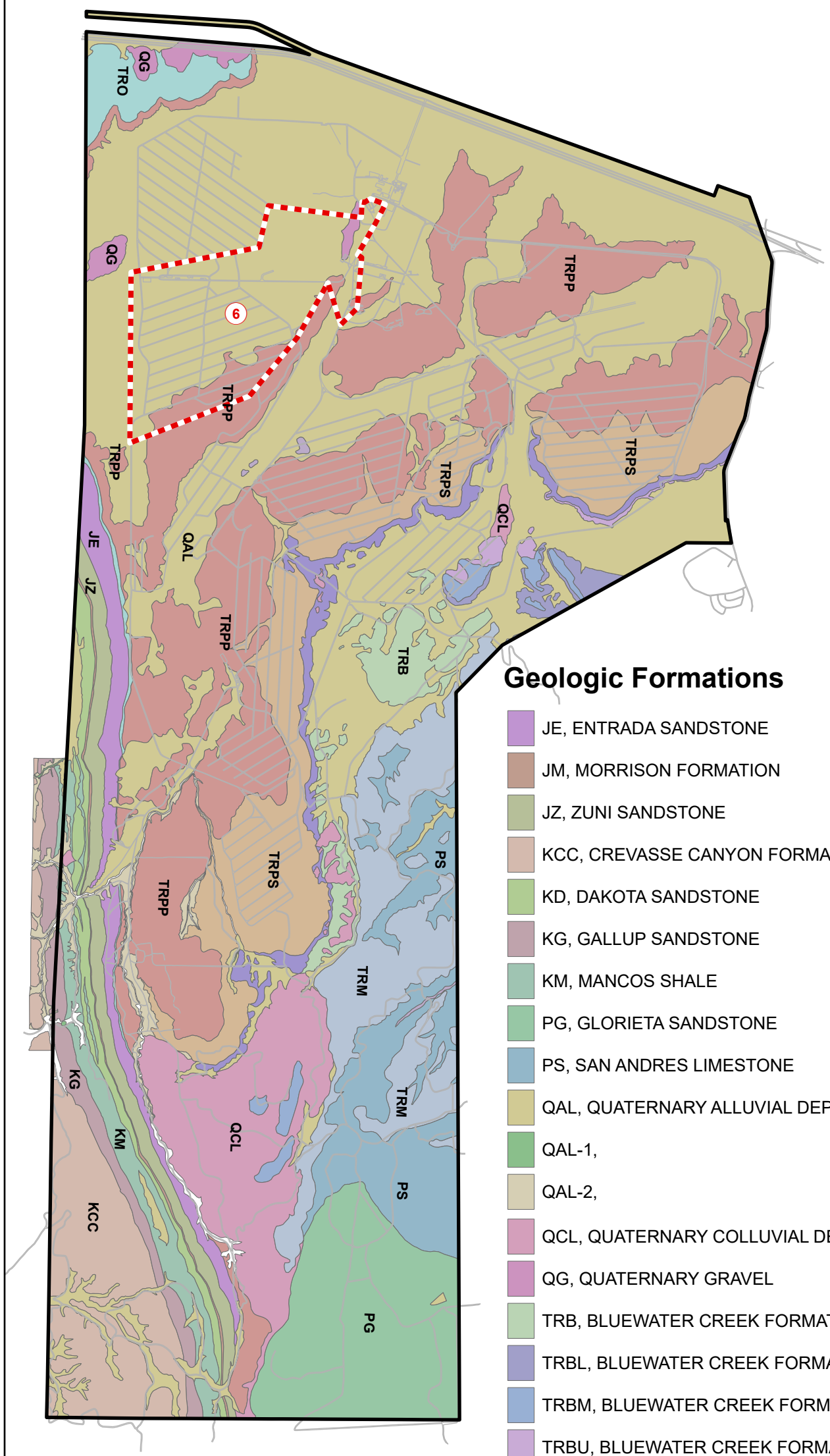

Geologic Formations

- JE, ENTRADA SANDSTONE
- JM, MORRISON FORMATION
- JZ, ZUNI SANDSTONE
- KCC, CREVASSE CANYON FORMATION
- KD, DAKOTA SANDSTONE
- KG, GALLUP SANDSTONE
- KM, MANCOS SHALE
- PG, GLORIETA SANDSTONE
- PS, SAN ANDRES LIMESTONE
- QAL, QUATERNARY ALLUVIAL DEPOSITS
- QAL-1,
- QAL-2,
- QCL, QUATERNARY COLLUVIAL DEPOSITS
- QG, QUATERNARY GRAVEL
- TRB, BLUEWATER CREEK FORMATION
- TRBL, BLUEWATER CREEK FORMATION - LOWER MEMBER
- TRBM, BLUEWATER CREEK FORMATION - MCGAFFEY MEMBER
- TRBU, BLUEWATER CREEK FORMATION - UPPER MEMBER
- TRM, SHINARUMP FORMATION AND MOENKOPI FORMATION DIVIDED
- TRO, OWL ROCK FORMATION
- TRPB, PETRIFIED FOREST FORMATION - BLUE MESA MEMBER
- TRPP, PETRIFIED FOREST FORMATION - PAINTED DESERT MEMBER
- TRPS, PETRIFIED FOREST FORMATION - SONSELA SANDSTONE MEMBER
- UNKNOWN, UNKNOWN

Legend

FWDA Boundary
FWDA Roads
6 Parcel Number
Parcel 6 Boundary

Source : AMEC Foster Wheeler, 2018
Reference: Thorstenson, D.J., and Beard, L.S., U.S. Geological Survey, 2000.

Client	USACE, Albuquerque District			
Notes	Supplemental RCRA Facility Investigation Work Plan Parcel 6, Fort Wingate Depot Activity, McKinley County, NM			
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Scale	1:56,560	Checked by	LR	3/26/2025
Source: Amec Foster Wheeler, 2018		PM	CR	3/26/2025

N

FIGURE 2.4

Facility-Wide Geologic Map

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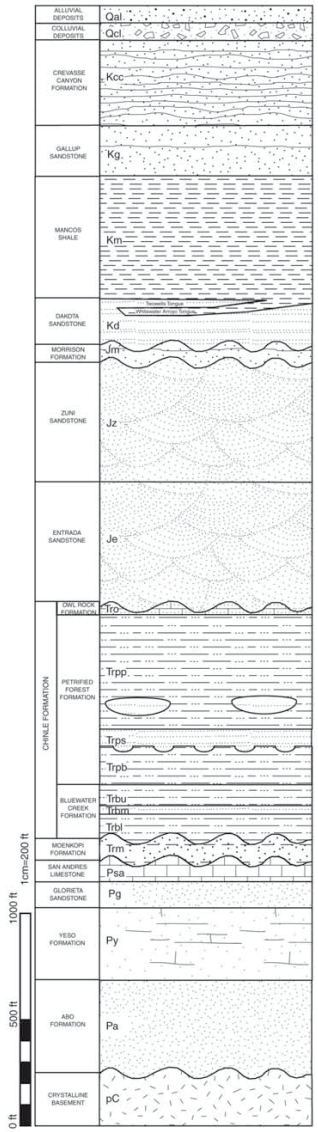

Description of Units

Qal - Alluvial deposits (Quaternary); sand, gravel, and clay in young valleys and drainages

Qcl - Colluvial deposits (Quaternary); land-slides, and cobble deposits in young valleys and on steep slopes

Kcc - Crevasse Canyon Formation (Upper Cretaceus, 88 Ma); mudstone, shale, very fine- to medium-grained sandstone, carbonaceous shale, and thin lenticular coal beds; outcrops in southwest corner only; <400 feet thick

Kg - Gallup Sandstone (Upper Cretaceus, 90 Ma); tan to pale-orange, medium-grained, well-sorted calcareous-sandstone, silty-sandstone, and coaly-carbonaceous layers; three prominent ridge forming sandstone layers (<20') are separated by silty, and carbonaceous intervals (<80'); sandstone layers have only minor amounts of cement and minimal matrix material resulting in high apparent permeability; <220 feet thick

Km - Mancos Shale (Upper Middle Cretaceus, 97-90 Ma); light- to dark-gray and mudstone, silty-mudstone, and shale; minor amounts of lenticular sandy-siltstone, limestone, and calcerous-sandstone present in upper portions; sandy layers have abundant cement and ultrafine matrix resulting in very low apparent-permeability; the Whitewater Arroyo Tongue of the Mancos Shale is intertounged with and underlies the Twowells Tongue of the Dakota Sandstone, abundant fossil corrals and cephalopods in Whitewater Arroyo Tongue; <600 feet thick excluding the Whitewater Arroyo Tongue which varies in thickness from 0-80 feet thick

Kd - Dakota Sandstone (Upper Middle Cretaceus, 97-90 Ma); tan to pale-yellow, fine- to medium-grained, sub-angular to well-rounded, grain-supported sandstone; small amounts of matrix and grain-support result in a very high apparent-permeability; Twowells Tongue of Dakota Sandstone is intertongued with and overlies the Whitewater Arroyo Tongue of the Mancos Shale; basal contact of Dakota Sandstone unconformably overlies an irregular erosional surface developed in the Morrison Formation; <230-310 feet thick including the Whitewater Arroyo Tongue

Jm - Morrison Formation (Upper Jurassic, 160-145 Ma); grayish-white to pale-orange, subangular to well rounded, fine- to coarse-grained sandstone and conglomeratic-sandstone; trough cross stratification locally; clay-rich fine-grained intervals present near upper contact; highly variable apparent-permeability; variable thickness possibly due to bedding-plane slip along monoclinal fold axis; <65 feet thick in northern part of base, thinning to <20 feet to the south

Jz - Zuni Sandstone (Middle Jurassic, 170-165 Ma); white, pink, and reddish-orange, well-rounded, clast-supported, fine- to very-fine-grained sandstone and silty-sandstone; horizontal color banding common; crossbedding in relatively thin sets (compared to Entrada Sandstone); siltier intervals correlate to shallow slopes and cleaner interval correlate to steep slopes; very-high apparent-permeability; <620 feet thick

Je - Entrada Sandstone (Middle Jurassic, 170-165 Ma); red, and pinkish-gray, moderately rounded, matrix supported, fine- to medium-grained sandstone; large-scale crossbedding; less competent than Zuni Sandstone; calcareous cement; very-high apparent-permeability; <650 feet thick

Tro - Owl Rock Formation (Upper Triassic, 225-210 Ma); white, grayish-pink, and orange, crystalline-limestone, sandy-limestone, and calcerous-sandstone; variable thickness possibly due to bedding-plane slip along monoclinal fold axis; <30 feet thick

Trpp - Petrified Forest Formation, Painted Desert Member (Middle Triassic, 225-210 Ma); purplish-red, orangish-red and rust colored, mudstone, siltstone, sandstone, and sandstone-conglomerate; sandstone intervals (<20') have tabular and trough cross beds, abundant ultrafine matrix, and are generally dirty resulting in low apparent-permeability; abundant 1-2cm greenish gray calcrete nodules present forming a distinctive mottled or speckled surface; shallow (<6') channel deposits with intraformational conglomerates containing mudstone and carbonate clasts; lenticular bodies of sandstone with similar lithology to the Sonsela Sandstone are laterally discontinuous; <600 feet thick

Trps - Petrified Forest Formation, Sonsela Sandstone Member (Middle Triassic, 225-210 Ma); yellow, tan, and olive-colored, well rounded, clast-supported, medium- to coarse-grained sandstone and conglomeratic sandstone; conglomeratic intervals containing intraformational (mudstone, carbonate) and extraformational (chert, quartzite) clasts; thin crossbedding common; minimal matrix and grain-support result in very-high apparent-permeability; <100 feet thick, highly variable thickness typical of large-scale channel deposits

Trpb - Petrified Forest Formation, Blue Mesa Member (Middle Triassic, 230-225 Ma); purple, and purplish-red, mudstone, and muddy-sandstone; mudstones are smectitic; light-gray sandy-smectitic-siltstone interval (<8') serves as marker bed for the base of the Petrified Forest Formation; high quantity of ultrafine matrix results in a very-low apparent-permeability; petrified wood very common in upper portions; <280 feet thick

Trbu - Bluewater Creek Formation, Upper Member (Upper Triassic, 230-225 Ma); pinkish-gray to reddish-brown siltstone and mudstone; calcrete nodules present locally; high silt and ultrafine matrix result in low apparent-permeability; <100 feet thick

Trbm - Bluewater Creek Formation, McGaffey Member (Upper Triassic, 230-225 Ma); white, pale-red and gray, medium-grained, ripple-laminated sandstone; color banding common; basal interval has carbonate-clast-conglomerate; calcareous cement; high apparent-permeability; <80 feet thick, highly variable thickness typical of large-scale channel deposits, locally not recognized

Trbl - Bluewater Creek Formation, Lower Member (Middle to Upper Triassic, 240-225 Ma); yellowish-gray, and reddish-brown mudstone and siltstone; calcrete nodules are present locally; low apparent-permeability; <115 feet thick

Trm - Shinarump Formation and Moenkopi Formation Undivided (Middle Triassic, 240-225 Ma); Shinarump Formation is purple and reddish-gray, motled chert- and quartzite-pebble-conglomerate and congloeratic-sandstone with reddish-brown matrix; Moenkopi is red, tan, and black calcareous-mottled-sandstone and calcareous-mudstone; massive to thinly-laminated and ripple-laminated siltstone and very fine-grained sandstones; 30-200 feet thick combined

Psa - San Andres Limestone (Middle Permian, 275-250 Ma); gray and white, fossiliferous, crystalline-limestone and dolomitic-limestone; locally absent due to karsting; <165 feet thick

Pg - Glorieta Sandstone (280-275 Ma); grayish-orange to orange, well-sorted, moderate- to well-rounded, fine- to medium-grained quartzose-sandstone; horizontal and low-angle crossbedding locally; <130 feet thick

Py - Yeso Formation (280-275 Ma); dark-orange to reddish-orange, very fine-grained gypsiferous-sandstone and silty-sandstone; three light-gray, dolomitic, carbonate beds (7') present in formation; <375 feet thick

Pa - Abo Formation (280-275 Ma); grayish-red, very fine-grained silty-sandstone; non-calcerous; flat-bedded; basal 3-12' are arkosic; <450 feet thick

pC - Precambrian Basement; typically granitic- to dioritic- igneous and metamorphic rocks

Source: AMEC Foster Wheeler, 2018
Reference: Thorstenson, D.J., and Beard, L.S., U.S. Geological Survey, 2000.

The map shown here has been created with all due and reasonable care and is strictly for use in this report. This map has not been certified by a licensed surveyor and any third party use comes without warranties of any kind. No liability is assumed, direct or indirect, whatsoever for any such third party use.

Supplemental RCRA Facility Investigation Work Plan
Parcel 6 - Fort Wingate Depot Activity McKinley County, New Mexico

Stratigraphic Column

Figure 2.5

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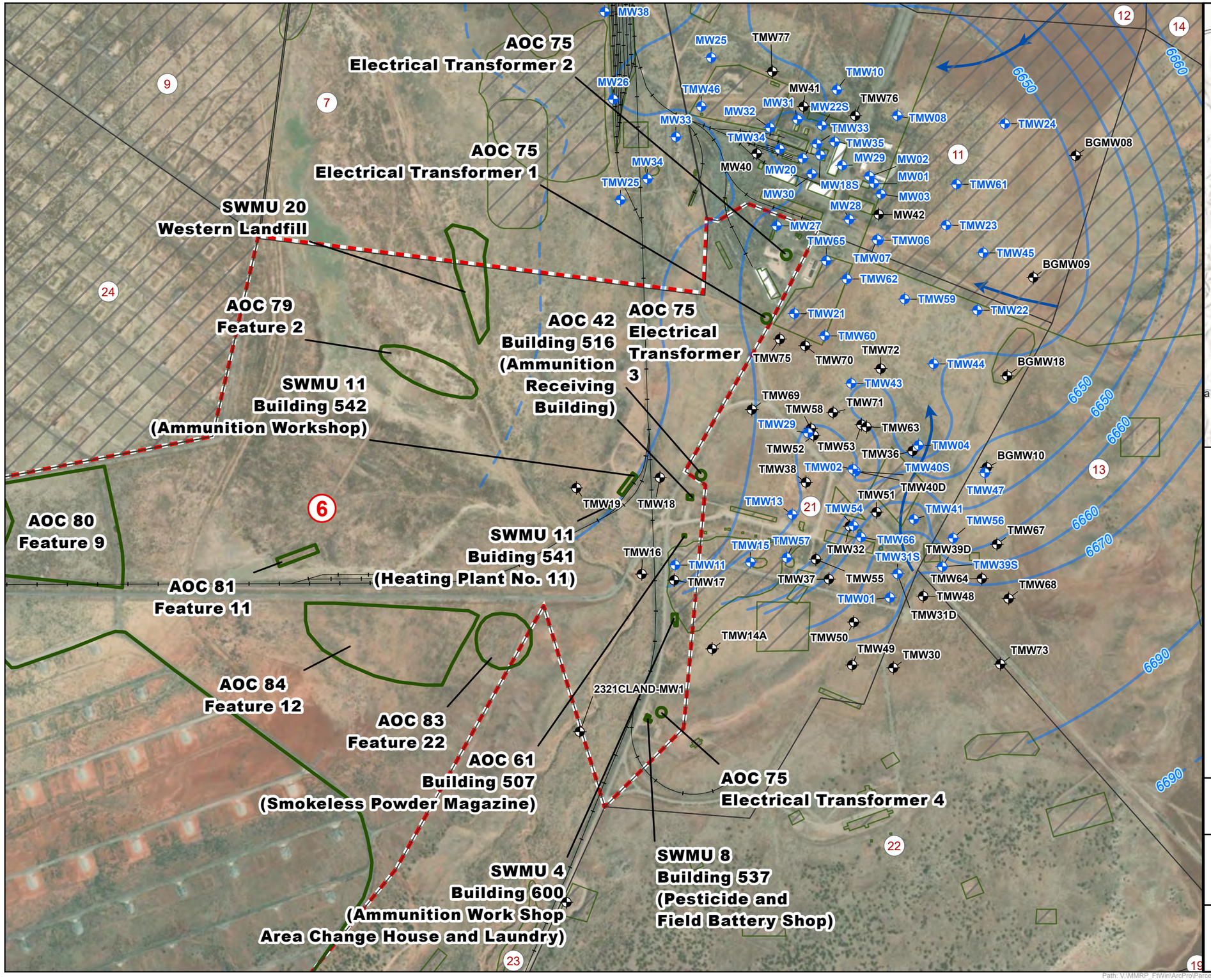

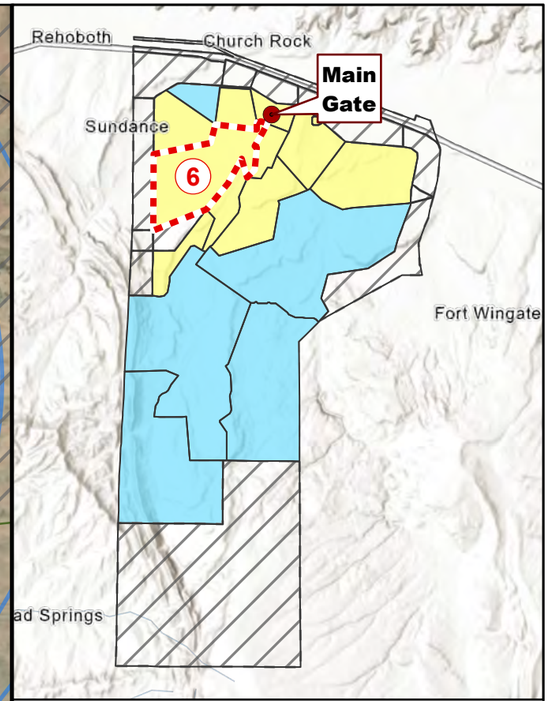

Legend

- Active Alluvial Groundwater Monitoring Well
- Active Bedrock Well
- Approximate Groundwater Flow Direction
- Inferred Alluvial Groundwater Elevation, feet amsl (April 2023)
- Alluvial Groundwater Elevation, feet amsl (April 2023)
- AOC/SWMU Boundary
- AOC/SWMU Boundary (not included in Parcel 6)
- Parcel 6 Boundary

Note:
AOC = Area of Concern
SWMU = Solid Waste Management Unit

0 500 1,000 Feet

N

Supplemental RCRA Facility Investigation Work Plan Parcel 6
Fort Wingate Depot Activity,
McKinley County, NM

FIGURE 2.6

Monitoring Wells in the Vicinity of Parcel 6

Client	USACE, Albuquerque District	GIS by	DB	8/26/2026
		Checked by	JH	8/26/2026
		PM	CR	8/26/2026

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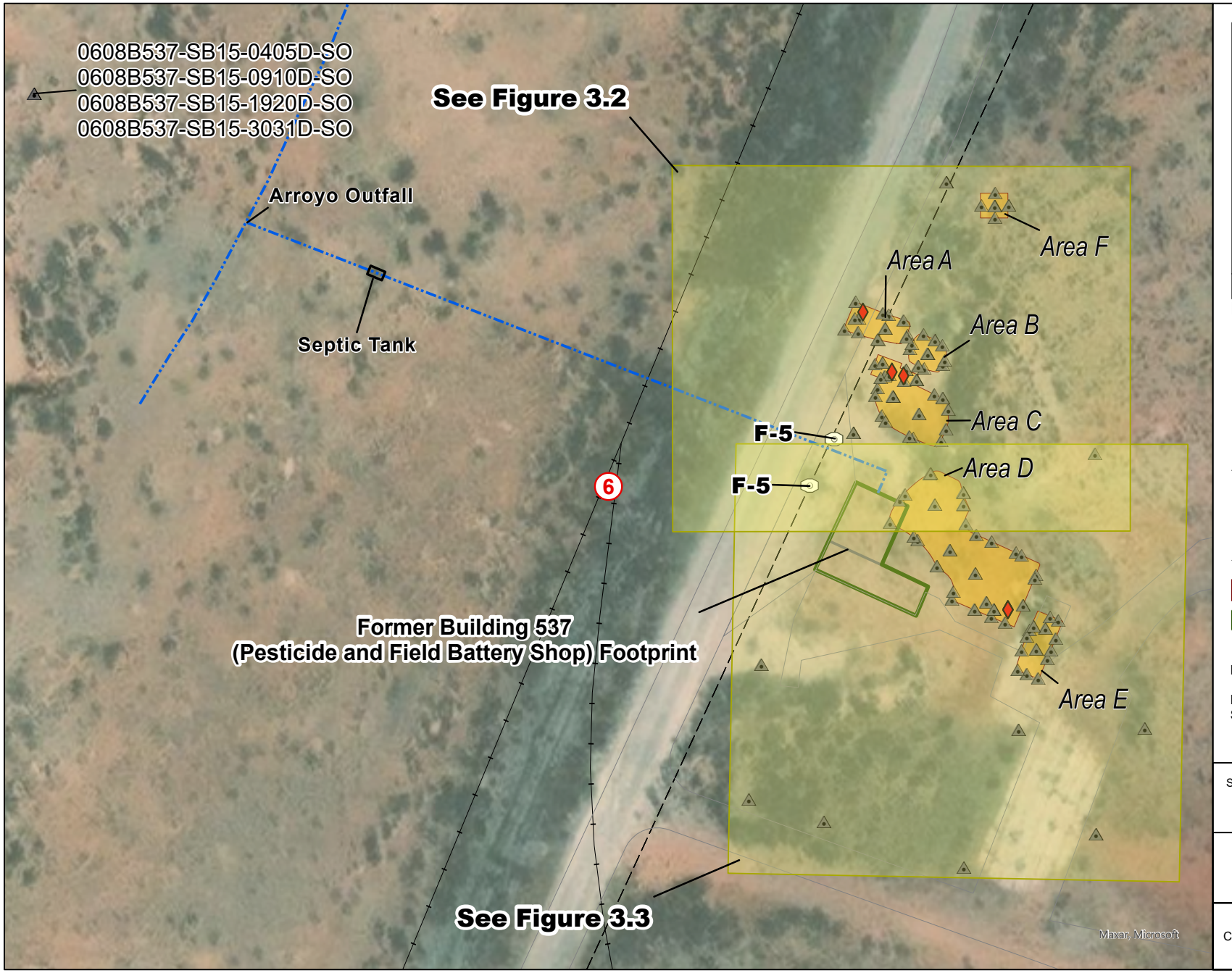

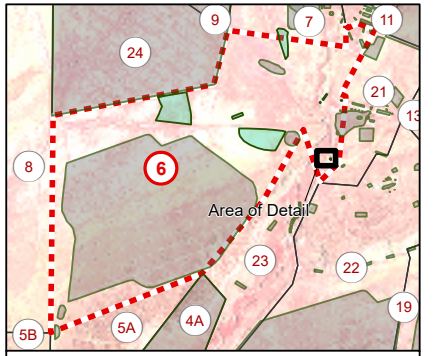

Parcel 6 Detail

Legend

- Previous Sample Location
- Previous Sample Location, Results Exceeding Human Health Screening Levels (see Appendix B [Table B.3-10])
- Sanitary Manhole
- Sanitary Sewer
- Arroyo
- Railroad
- Road
- PIIM Removal Area
- SWMU 8

Note:

PIIM = Permittee-Initiated Interim Measure
SWMU = Solid Waste Management Unit

0 30 60 Feet

N

Supplemental RCRA Facility Investigation Work Plan Parcel 6,
Fort Wingate Depot Activity,
McKinley County, NM

Figure 3.1

SWMU 8 - Building 537
Previous Sample Locations, Overview

Client	USACE, Albuquerque District	GIS by	AM	3/27/2025
		Checked by	KS	3/27/2025
		PM	CR	3/27/2025

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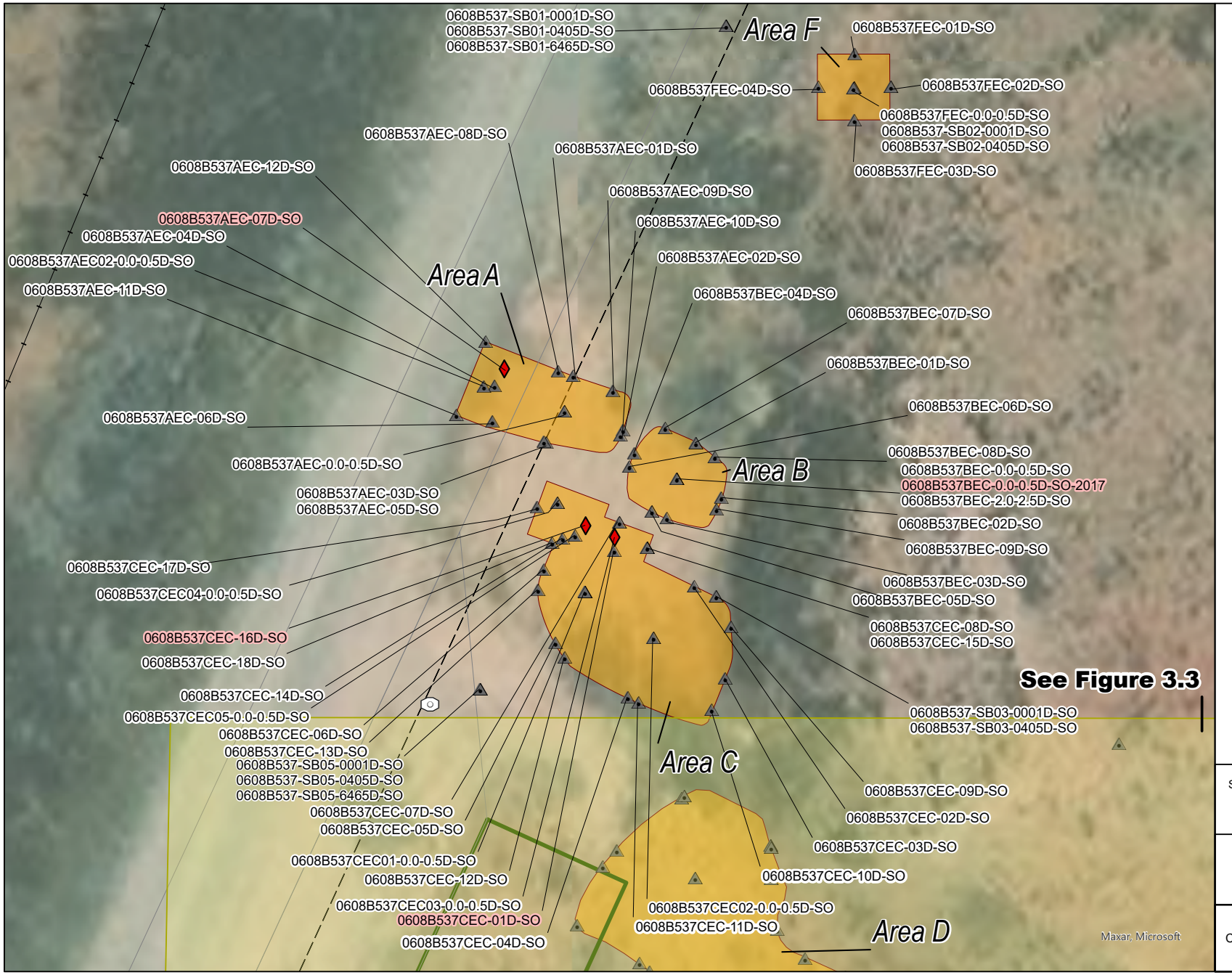

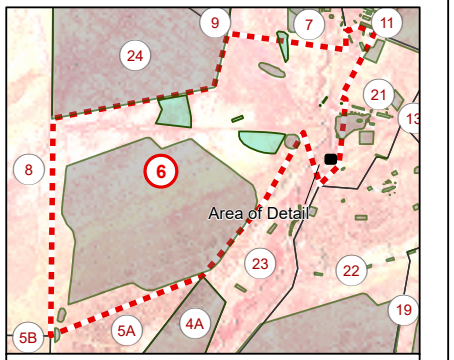

Parcel 6 Detail

Legend

- Previous Sample Location
- Previous Sample Location, Results Exceeding Human Health Screening Levels (see Appendix B [Table B.3-10])
- Sanitary Manhole
- Sanitary Sewer
- Railroad
- Road
- PIIM Removal Area
- SWMU 8

Note:

Red highlighting indicates sample location was excavated during PIIM.
PIIM = Permittee-Initiated Interim Measure
SWMU = Solid Waste Management Unit

0 10 20 Feet

N

Supplemental RCRA Facility Investigation Work Plan Parcel 6,
Fort Wingate Depot Activity,
McKinley County, NM

Figure 3.2
SWMU 8 - Building 537
Previous Sample Locations,
Areas A, B, C, and F

Client	USACE, Albuquerque District	GIS by	AM	3/27/2025
		Checked by	KS	3/27/2025
		PM	CR	3/27/2025

Path: V:\MMRP_FtWin\ArcPro\Parcel6\WorkPlan\Wingate_P6_Samples.aprx Layout: SWMU 8_Inset1
Date Saved: 3/27/2025 11:28 AM Date Exported:3/27/2025 11:33 AM

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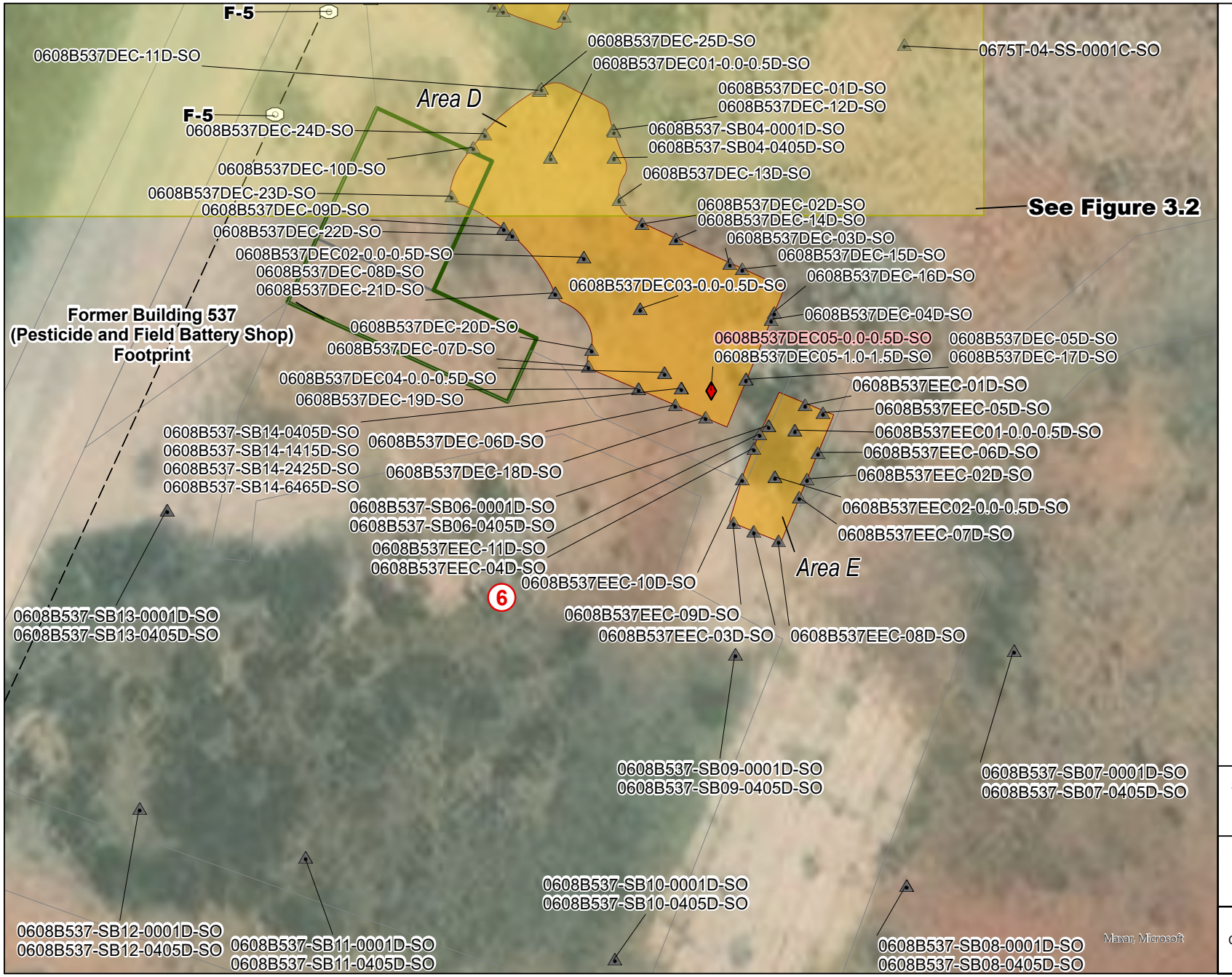

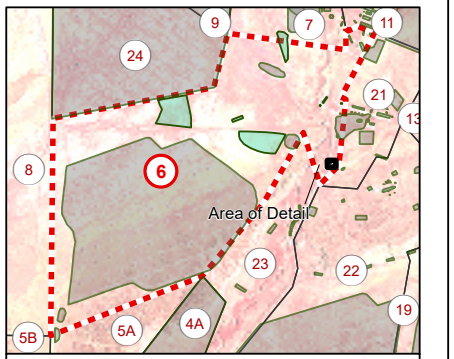

Parcel 6 Detail

Legend

- Previous Sample Location
- Previous Sample Location, Results Exceeding Human Health Screening Levels (see Appendix B [Table B.3-10])
- Sanitary Manhole
- Sanitary Sewer
- Railroad
- Road
- PIIM Removal Area
- SWMU 8

Note:

Red highlighting indicates sample location was excavated during PIIM.
PIIM = Permittee-Initiated Interim Measure
SWMU = Solid Waste Management Unit

0 10 20 Feet

N

Supplemental RCRA Facility Investigation Work Plan Parcel 6,
Fort Wingate Depot Activity,
McKinley County, NM

Figure 3.3
SWMU 8 - Building 537
Previous Sample Locations,
Areas D and E

Client	USACE, Albuquerque District	GIS by	AM	3/27/2025
		Checked by	KS	3/27/2025
		PM	CR	3/27/2025

Path: V:\MMRP_FtWin\ArcPro\Parcel6\WorkPlan\Wingate_P6_Samples.aprx Layout: SWMU 8_Inset2
Date Saved: 3/27/2025 11:28 AM Date Exported:3/27/2025 11:41 AM

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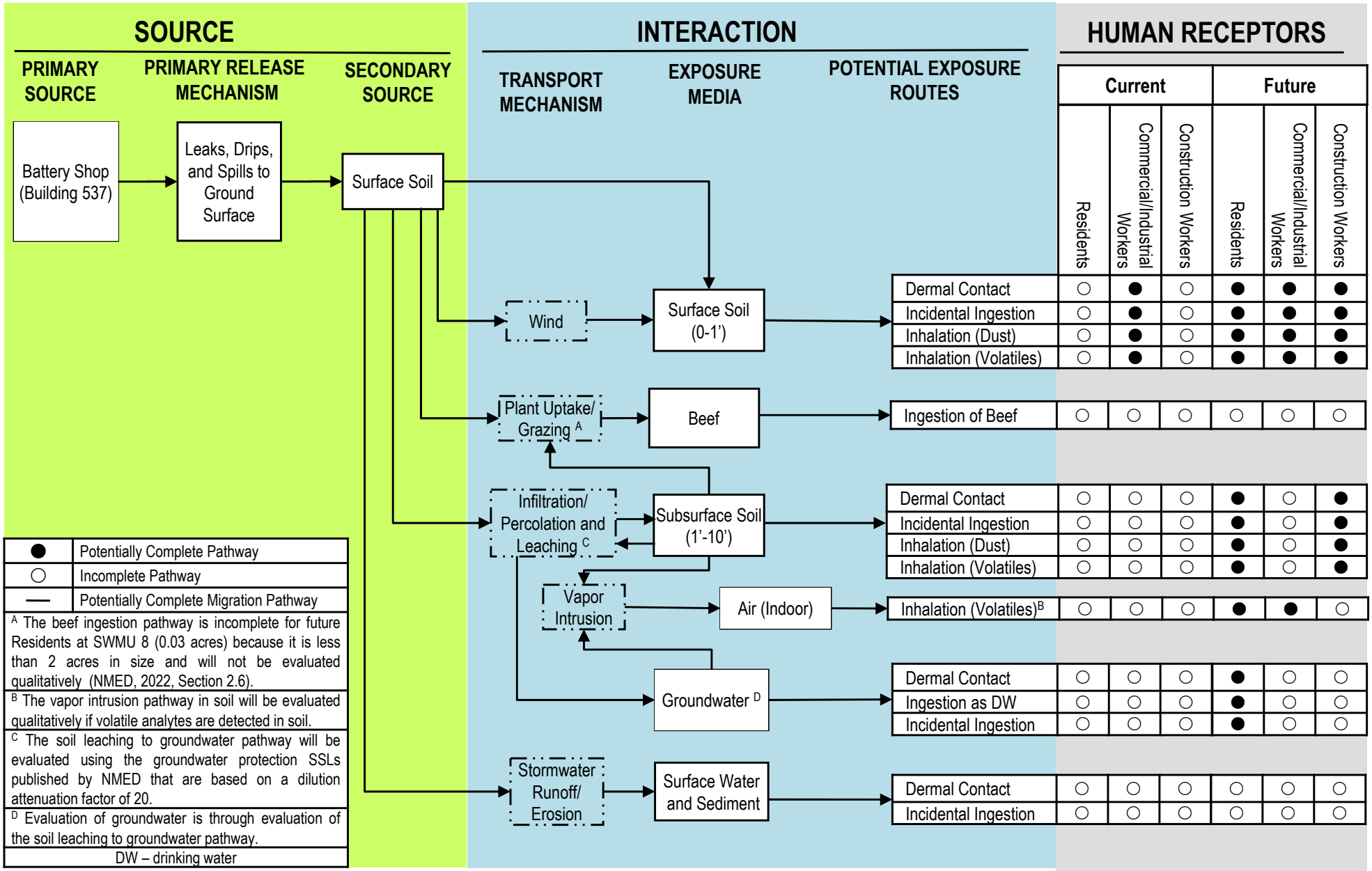
FIGURE 3.4
SWMU 8 Preliminary Human Health Conceptual Site Model

Site Name: Parcel 6, Fort Wingate Depot Activity, McKinley County, New Mexico

Completed By: Jessica Hinger, PARSONS ***Date Completed:*** May 14, 2024



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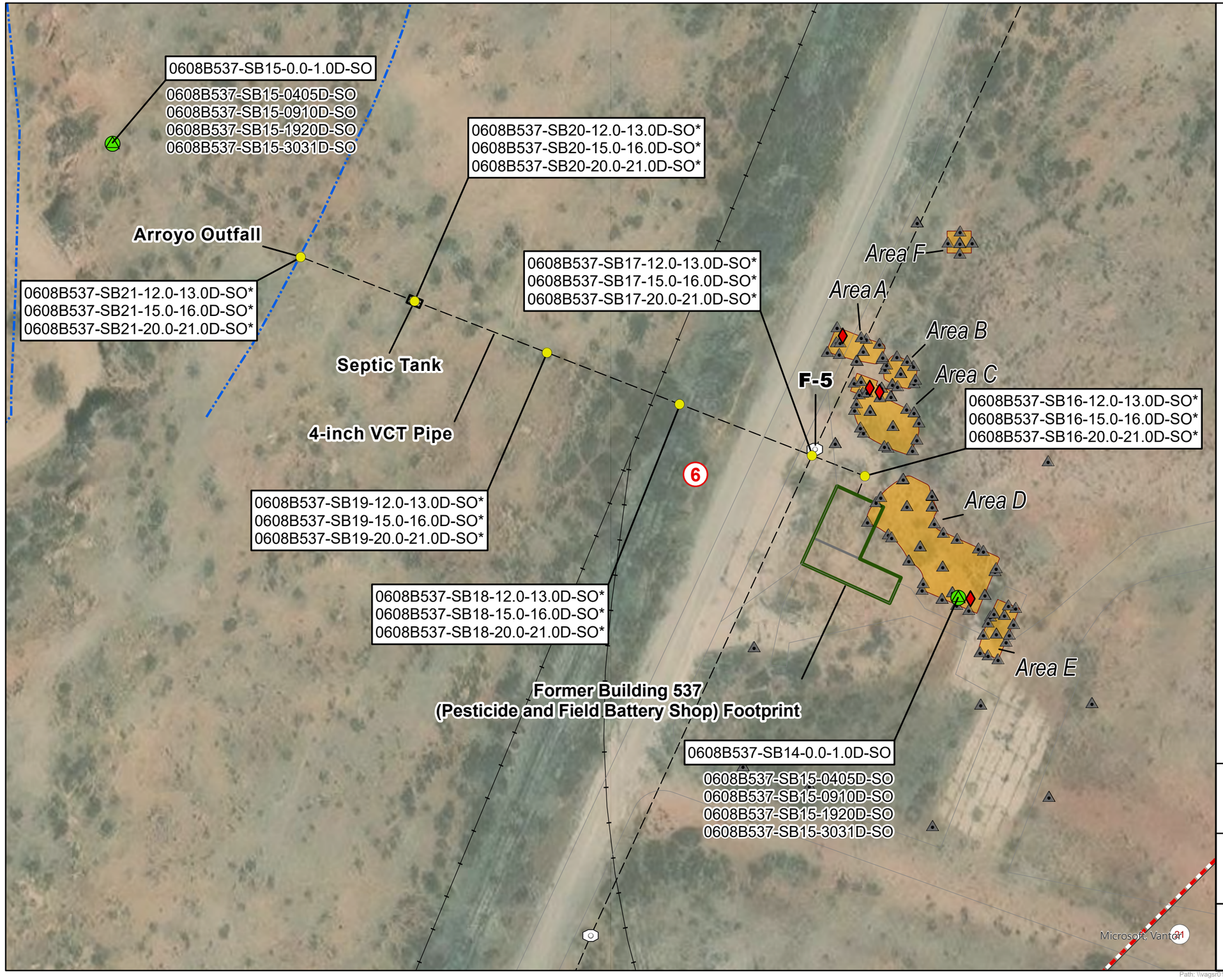

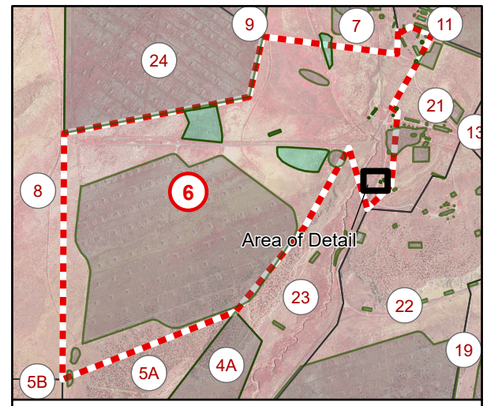

Parcel 6 Detail

Legend

- Previous Sample Location
- Previous Sample Location, Results Exceeding Human Health Screening Levels (see Appendix B [Table B.3-10])
- Proposed Soil Boring Location
- Proposed Soil Boring at Previous Sample Location
- Sanitary Manhole
- Sanitary Sewer
- Road
- Arroyo
- PIIM Removal Area
- Railroad
- SWMU 8

Note:
* Final sample depths will be adjusted in the field based on confirmed depth of sewer line.

PIIM = Permittee-Initiated Interim Measure
SWMU = Solid Waste Management Unit
VCT = Vitrified Clay Tile

0 25 50 Feet

N

Supplemental RCRA Facility Investigation Work Plan Parcel 6
Fort Wingate Depot Activity,
McKinley County, NM

Figure 3.5

SWMU 8 - Building 537
Proposed Sample Locations

Client	USACE, Albuquerque District	GIS by	JF	7/13/2026
		Checked by	SS	7/13/2026
		PM	CR	7/13/2026

Path: \\vagsr01na01fs01\GIS\MMRP_FtWin\ArcPro\Parcel6\WorkPlan\Wingate_P6_Samples.aprx Layout: SWMU 8_Proposed
Date Saved: 7/13/2026 9:33 AM Date Exported:7/13/2026 9:37 AM

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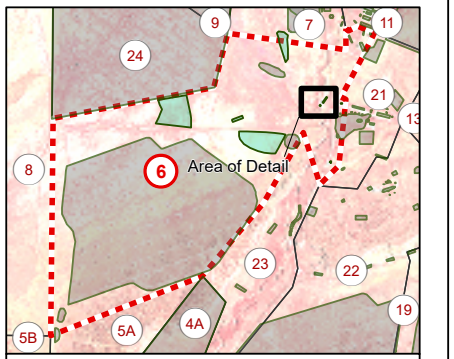

Parcel 6 Detail

Legend

- Previous Sample Location
- Sanitary Manhole
- Sanitary Sewer
- Railroad
- Road
- SWMU 11
- Parcel 6 Boundary

Note:

SWMU = Solid Waste Management Unit

0 40 80 Feet

N

Supplemental RCRA Facility Investigation Work Plan Parcel 6,
Fort Wingate Depot Activity,
McKinley County, NM

Figure 4.1

SWMU 11 - Buildings 541 and 542
Previous Sample Locations

Client	USACE, Albuquerque District	GIS by	AM	3/25/2025
		Checked by	KS	3/25/2025
		PM	CR	3/25/2025

Path: V:\MMRP_FtWin\ArcPro\Parcel6\WorkPlan\Wingate_P6_Samples.aprx Layout: SWMU 11
Date Saved: 3/25/2025 11:15 AM Date Exported:3/25/2025 11:39 AM

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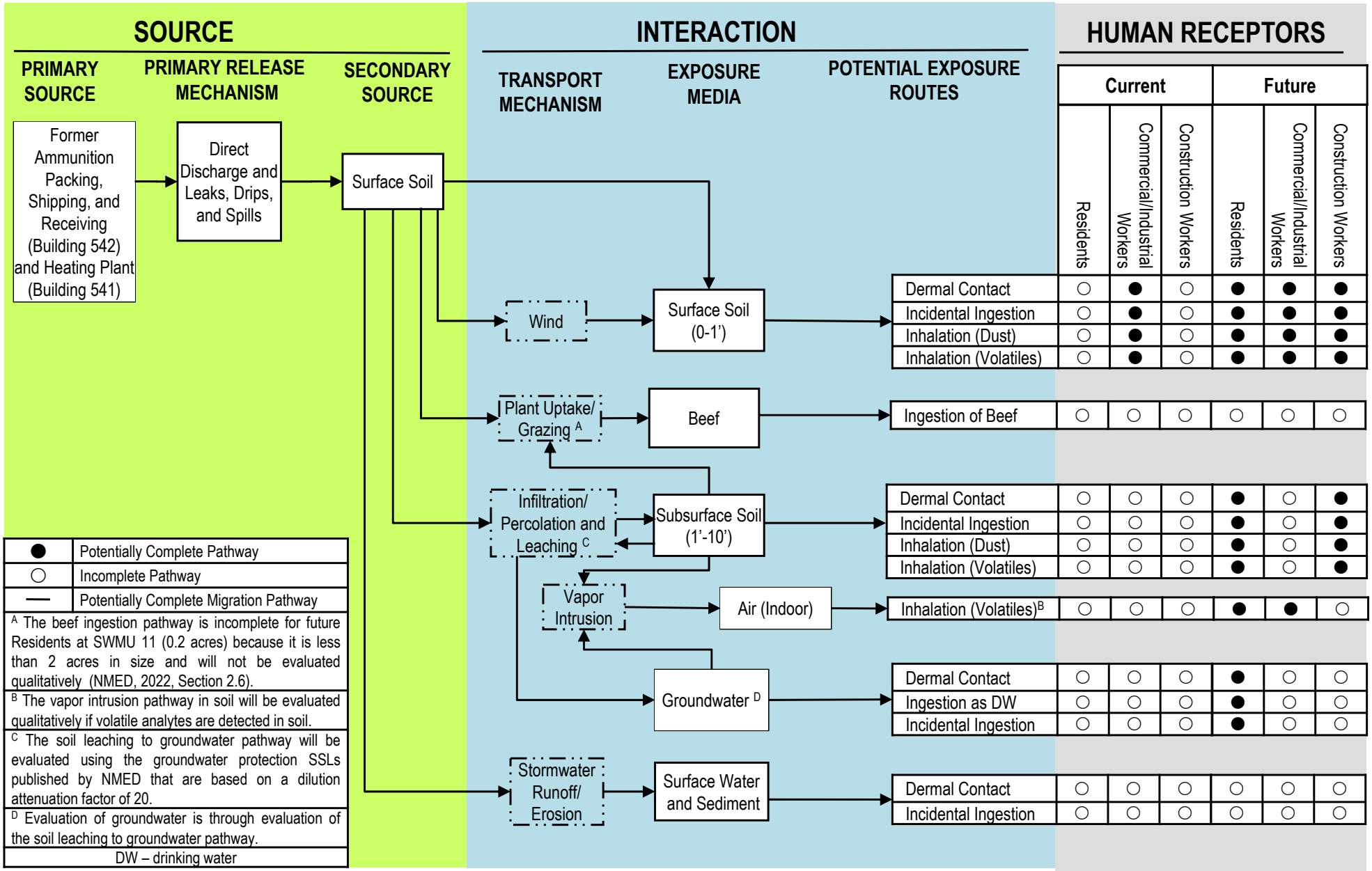
FIGURE 4.2
SWMU 11 Preliminary Human Health Conceptual Site Model

Site Name: Parcel 6, Fort Wingate Depot Activity, McKinley County, New Mexico

Completed By: Jessica Hinger, PARSONS ***Date Completed:*** May 15, 2024



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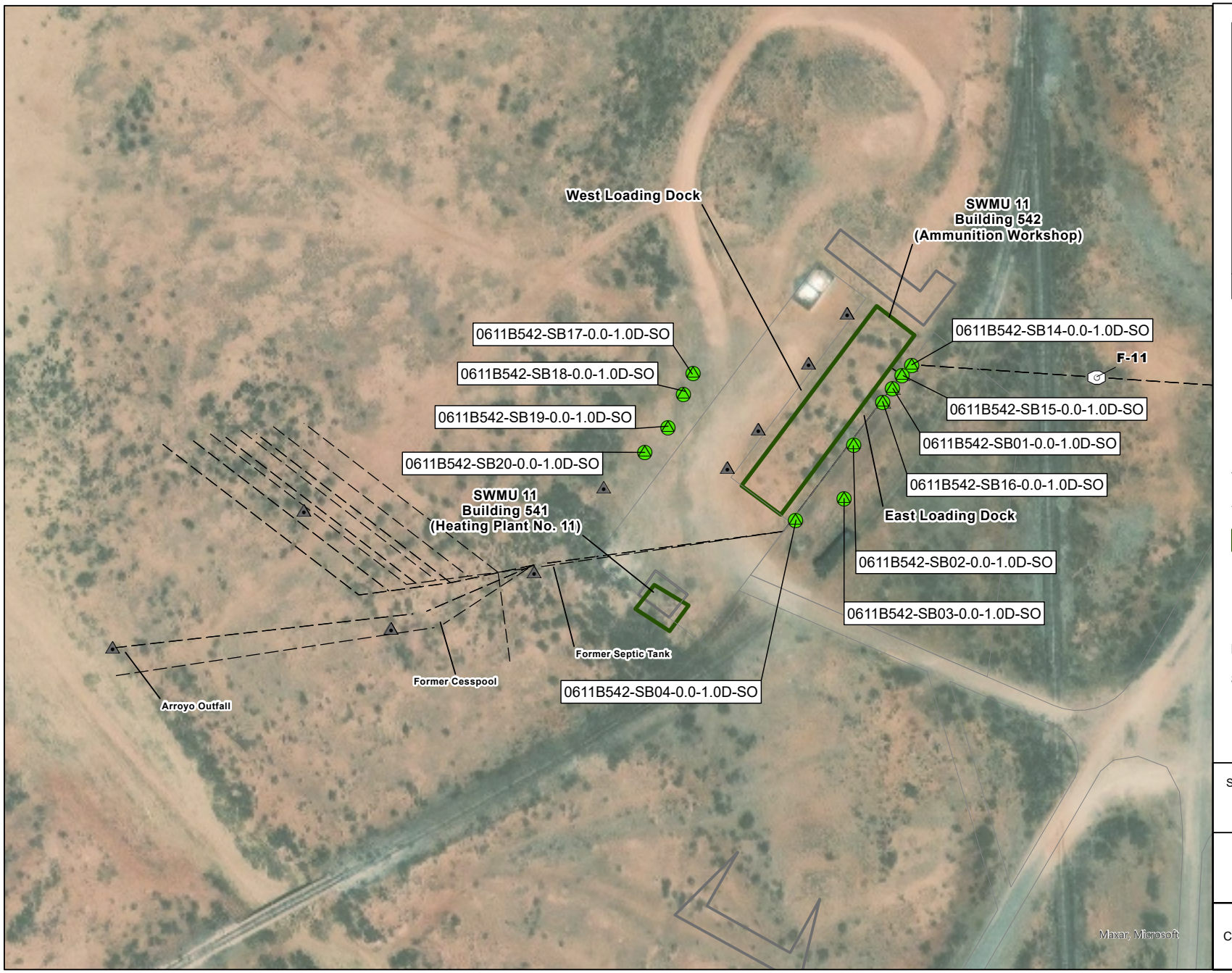

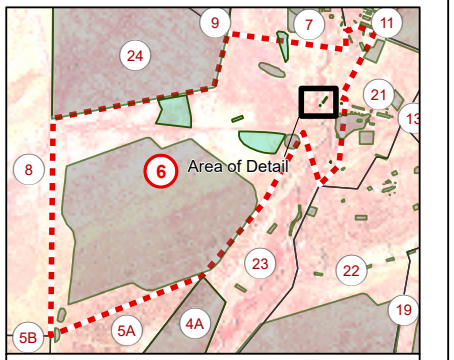

Parcel 6 Detail

Legend

- Previous Sample Location
- Proposed Soil Boring at Previous Sample Location
- Sanitary Manhole
- Sanitary Sewer
- Road
- SWMU 11
- Parcel 6 Boundary

Note:

SWMU = Solid Waste Management Unit

0 40 80 Feet

N

Supplemental RCRA Facility Investigation Work Plan Parcel 6,
Fort Wingate Depot Activity,
McKinley County, NM

Figure 4.3

SWMU 11 - Buildings 541 and 542
Proposed Sample Locations

Client	USACE, Albuquerque District	GIS by	AM	3/25/2025
		Checked by	KS	3/25/2025
		PM	CR	3/25/2025

Path: V:\MMRP_FtWin\ArcPro\Parcel6\WorkPlan\Wingate_PB_Samples.aprx Layout: SWMU 11_Proposed
Date Saved: 3/25/2025 11:15 AM Date Exported:3/25/2025 11:41 AM

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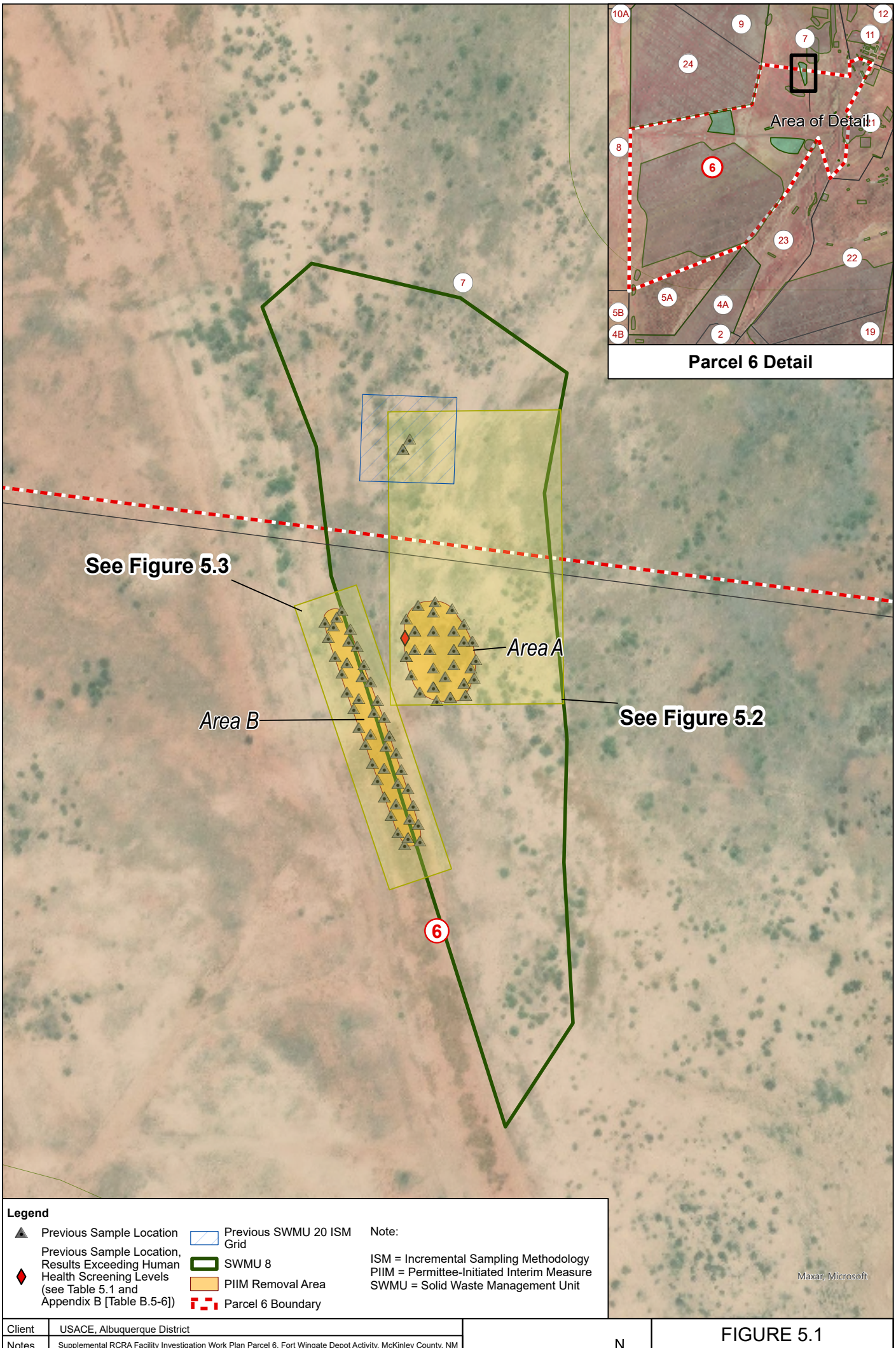

Client	USACE, Albuquerque District			
Notes	Supplemental RCRA Facility Investigation Work Plan Parcel 6, Fort Wingate Depot Activity, McKinley County, NM			
Revised	3/27/2025	GIS by	AM	3/27/2025
Scale	1:39,782	Checked by	SS	3/27/2025
		PM	CR	3/27/2025

0 45 90 Feet

N

FIGURE 5.1

SWMU 20 - Feature 4
Previous Samples Location, Overview

Path: V:\MMRP_FtWinArcPro\Parcel6\WorkPlan\Wingate_P6_Samples.aprx Layout: SWMU 20_Overview
Date Saved: 3/27/2025 11:28 AM Date Exported:3/27/2025 11:57 AM

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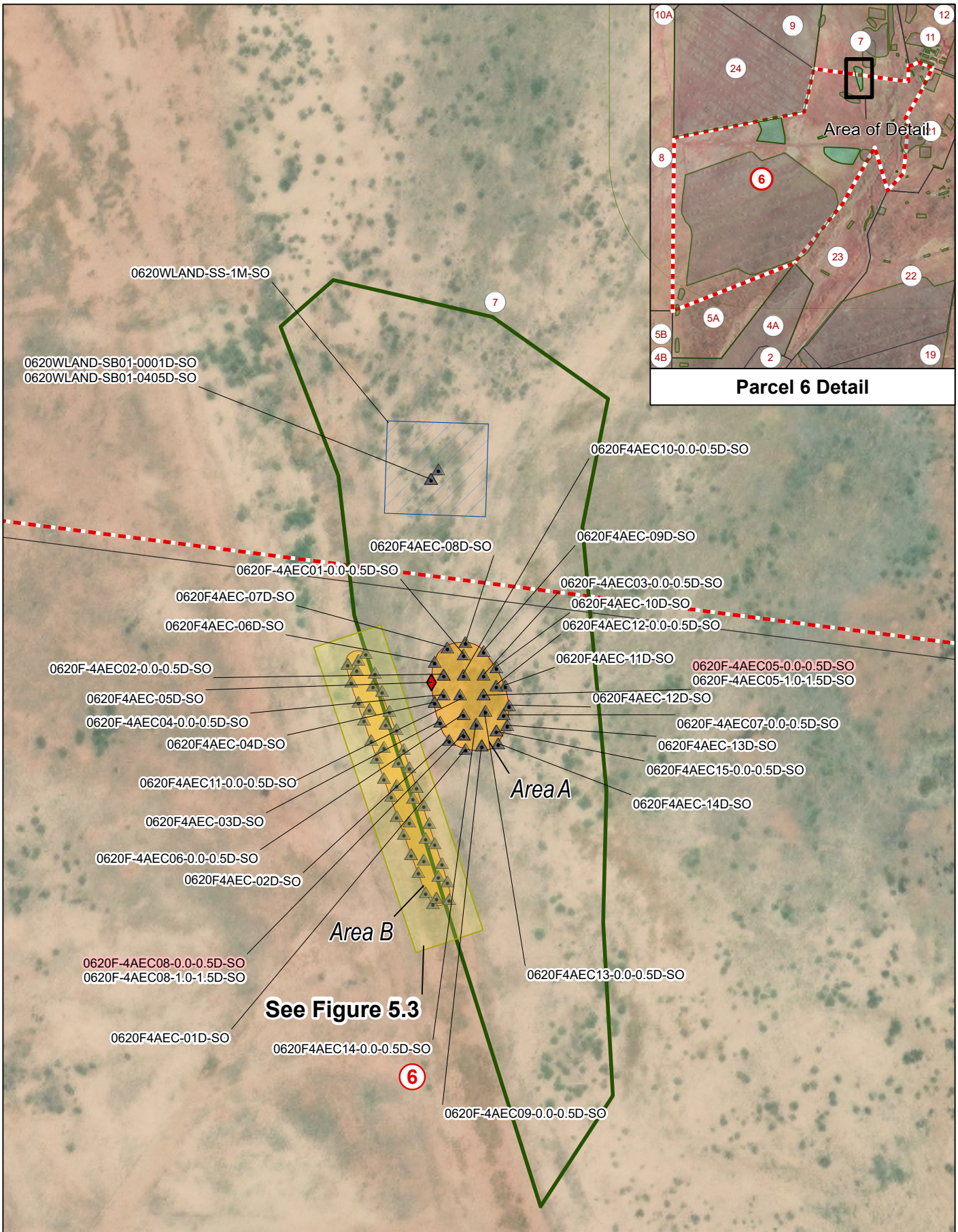

Legend

- Previous Sample Location
- Previous Sample Location, Results Exceeding Human Health Screening Levels (see Table 5.1 and Appendix B [Table B.5-6])
- Previous SWMU 20 ISM Grid
- SWMU 8
- PIIM Removal Area
- Parcel 6 Boundary

Note:

Red highlighting indicates sample location was excavated during PIIM.
ISM = Incremental Sampling Methodology
PIIM = Permittee-Initiated Interim Measure
SWMU = Solid Waste Management Unit

Client	USACE, Albuquerque District			
Notes	Supplemental RCRA Facility Investigation Work Plan Parcel 6, Fort Wingate Depot Activity, McKinley County, NM			
Revised	3/27/2025	GIS by	AM	3/27/2025
Scale	1:1,080	Checked by	SS	3/27/2025
		PM	CR	3/27/2025

0 45 90 Feet

N

FIGURE 5.2

SWMU 20 - Feature 4
Previous Sample Locations, Area A

Path: V:\MMRP_FtWin\ArcPro\Parcel6\WorkPlan\Wingate_P6_Samples.aprx Layout: SWMU 20_Inset
Date Saved: 3/27/2025 11:28 AM Date Exported:3/27/2025 11:58 AM

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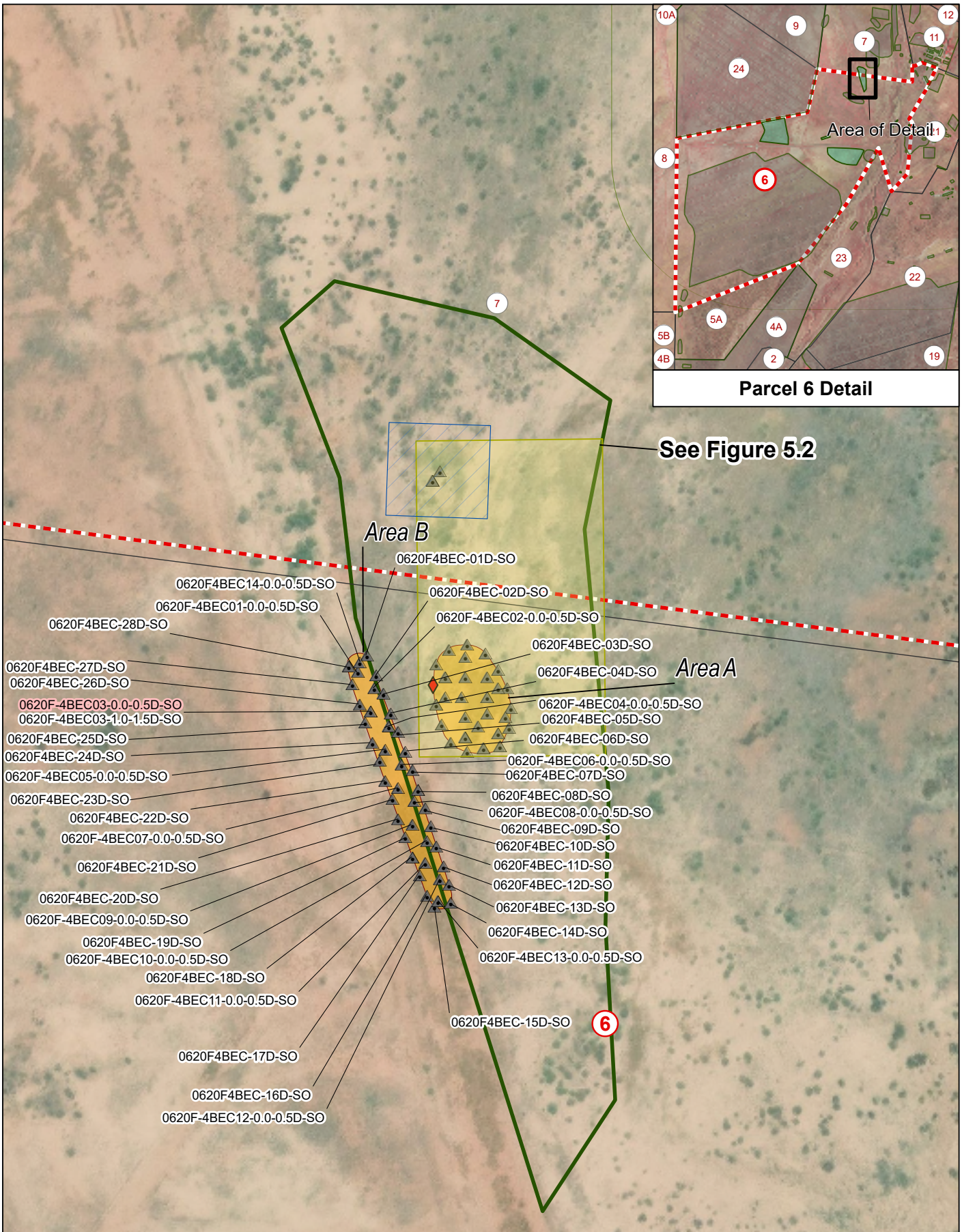

Legend

- Previous Sample Location
- Previous Sample Location, Results Exceeding Human Health Screening Levels (see Table 5.1 and Appendix B [Table B.5-6])
- Previous SWMU 20 ISM Grid
- SWMU 8
- PIIM Removal Area
- Parcel 6 Boundary

Note:

Red highlighting indicates sample location was excavated during PIIM.
ISM = Incremental Sampling Methodology
PIIM = Permittee-Initiated Interim Measure
SWMU = Solid Waste Management Unit

Client	USACE, Albuquerque District			
Notes	Supplemental RCRA Facility Investigation Work Plan Parcel 6, Fort Wingate Depot Activity, McKinley County, NM			
Revised	3/27/2025	GIS by	AM	3/27/2025
Scale	1:39,782	Checked by	SS	3/27/2025
		PM	CR	3/27/2025

0 45 90 Feet

N

FIGURE 5.3

SWMU 20 - Feature 4
Previous Sample Locations, Area B

Path: V:\MMRP_FtWin\ArcPro\Parcel6\WorkPlan\Wingate_P6_Samples.aprx Layout: SWMU 20_Inset2
Date Saved: 3/27/2025 11:28 AM Date Exported:3/27/2025 12:02 PM

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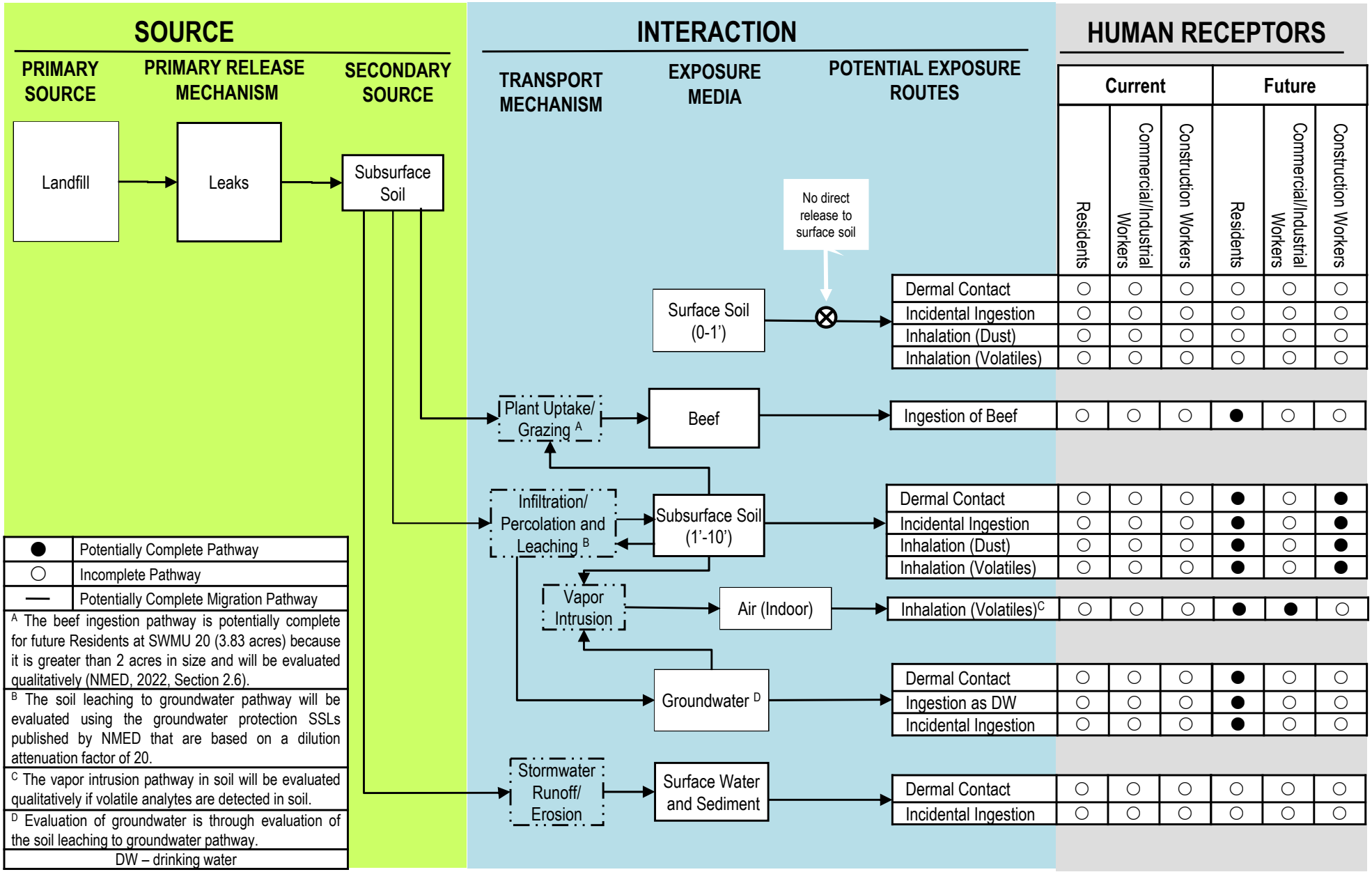
FIGURE 5.4
SWMU 20 Preliminary Human Health Conceptual Site Model

Site Name: Parcel 6, Fort Wingate Depot Activity, McKinley County, New Mexico

Completed By: Jessica Hinger, PARSONS ***Date Completed:*** May 15, 2024



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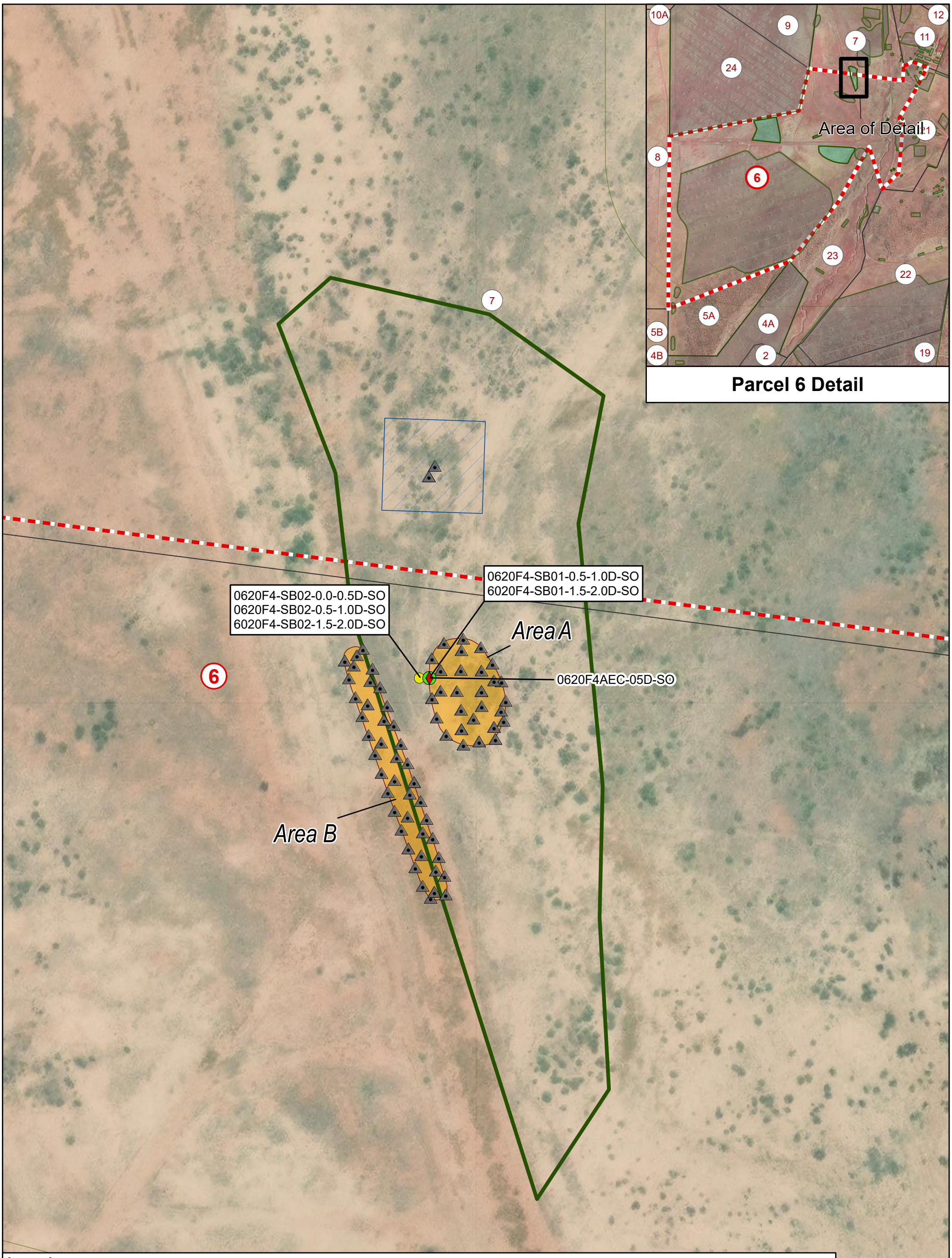

Client	USACE, Albuquerque District			
Notes	Supplemental RCRA Facility Investigation Work Plan Parcel 6, Fort Wingate Depot Activity, McKinley County, NM			
Revised	7/14/2025	GIS by	AM	7/14/2025
Scale	1:39,782	Checked by	SS	7/14/2025
		PM	CR	7/14/2025

0 45 90 Feet

N

FIGURE 5.5

SWMU 20 - Feature 4
Proposed Sample Locations

Path: V:\MMRP_FtWin\ArcPro\Parcel6\WorkPlan\Wingate_P6_Samples.aprx Layout: SWMU 20_Proposed
Date Saved: 7/14/2025 12:18 PM Date Exported:7/14/2025 12:59 PM

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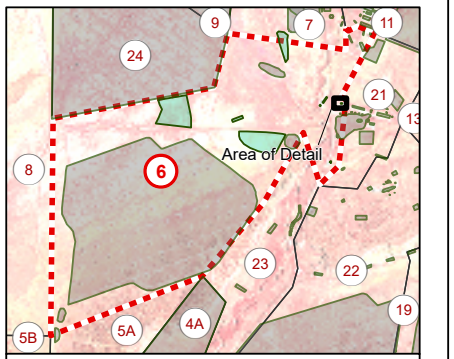

Parcel 6 Detail

Legend

- Previous AOC 42 ISM Grid
- Sanitary Manhole
- Sanitary Sewer
- Railroad
- Road
- AOC 42
- AOC/SWMU Boundary
- Parcel 6 Boundary

Note:

AOC = Area of Concern
SWMU = Solid Waste Management Unit
ISM = Incremental Sampling Methodology

0 15 30 Feet

N

Supplemental RCRA Facility Investigation Work Plan Parcel 6,
Fort Wingate Depot Activity,
McKinley County, NM

Figure 6.1

AOC 42 - Building 516
Previous Sample Locations

Client	USACE, Albuquerque District	GIS by	AM	3/27/2025
		Checked by	KS	3/27/2025
		PM	CR	3/27/2025

Path: V:\IMMRP_FtWin\ArcPro\Parcel6\WorkPlan\Wingate_P6_Samples.aprx Layout: AOC 42
Date Saved: 3/27/2025 11:28 AM Date Exported:3/27/2025 12:07 PM

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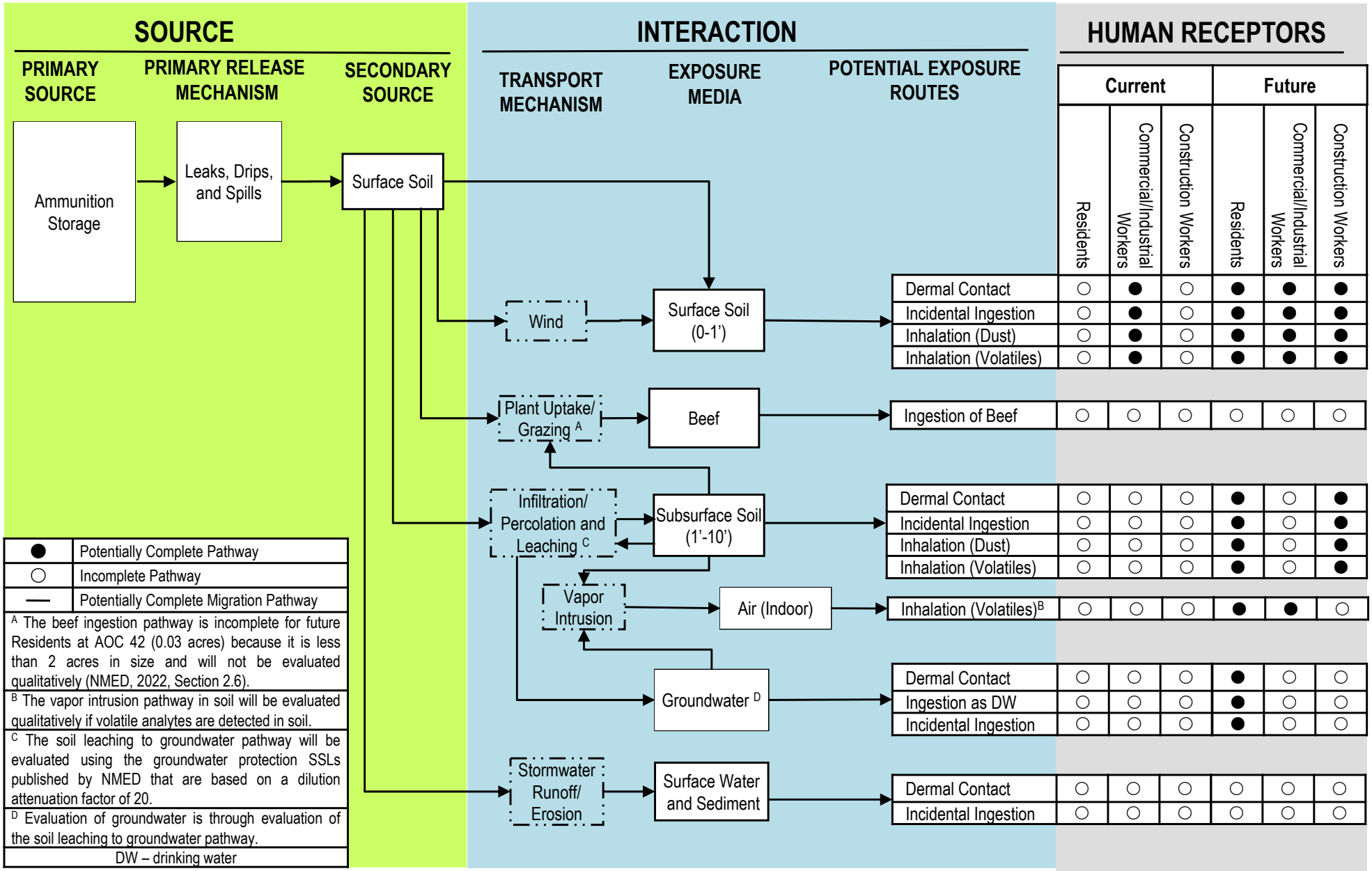
FIGURE 6.2
AOC 42 Preliminary Human Health Conceptual Site Model

Site Name: Parcel 6, Fort Wingate Depot Activity, McKinley County, New Mexico

Completed By: Jessica Hinger, PARSONS ***Date Completed:*** May 15, 2024



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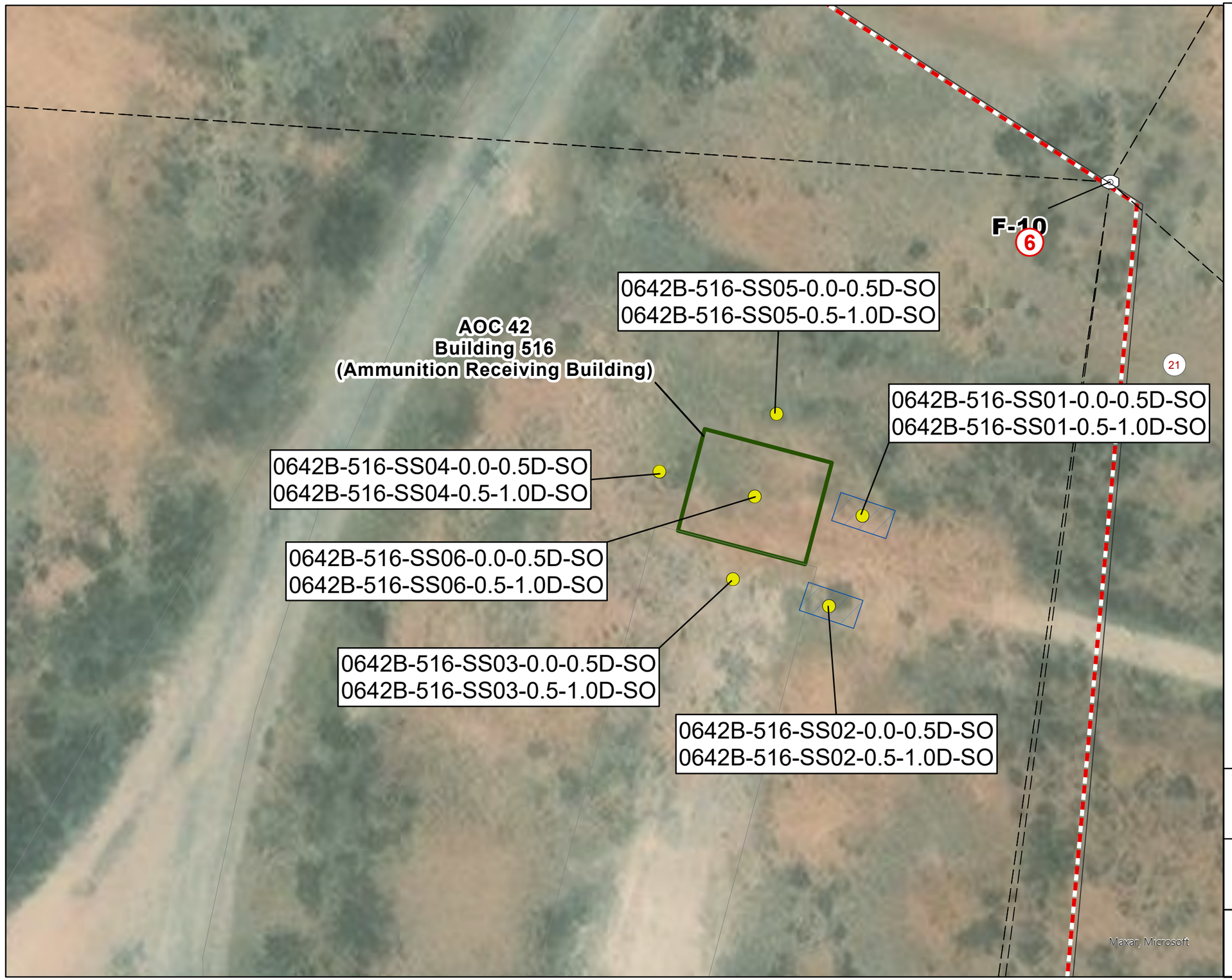

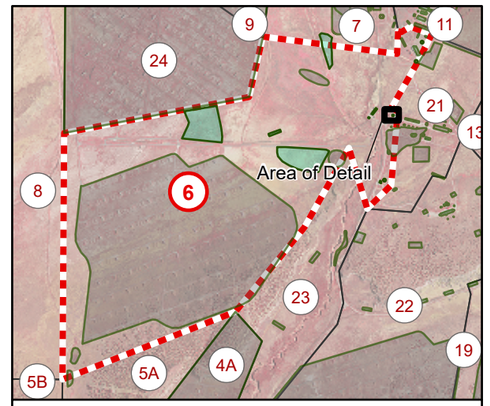

Parcel 6 Detail

Legend

- Proposed Surface Soil Sample Location
- Previous AOC 42 ISM Grid
- Road
- Railroad
- AOC 42
- AOC/SWMU Boundary
- Sanitary Manhole
- Sanitary Sewer
- Parcel 6 Boundary

Note:

AOC = Area of Concern
SWMU = Solid Waste Management Unit
ISM = Incremental Sampling Methodology

0 15 30 Feet

N

Supplemental RCRA Facility Investigation Work Plan Parcel 6,
Fort Wingate Depot Activity,
McKinley County, NM

Figure 6.3

AOC 42 - Building 516
Proposed Sample Locations

Client	USACE, Albuquerque District	GIS by	AM	7/7/2025
		Checked by	KS	7/7/2025
		PM	CR	7/7/2025

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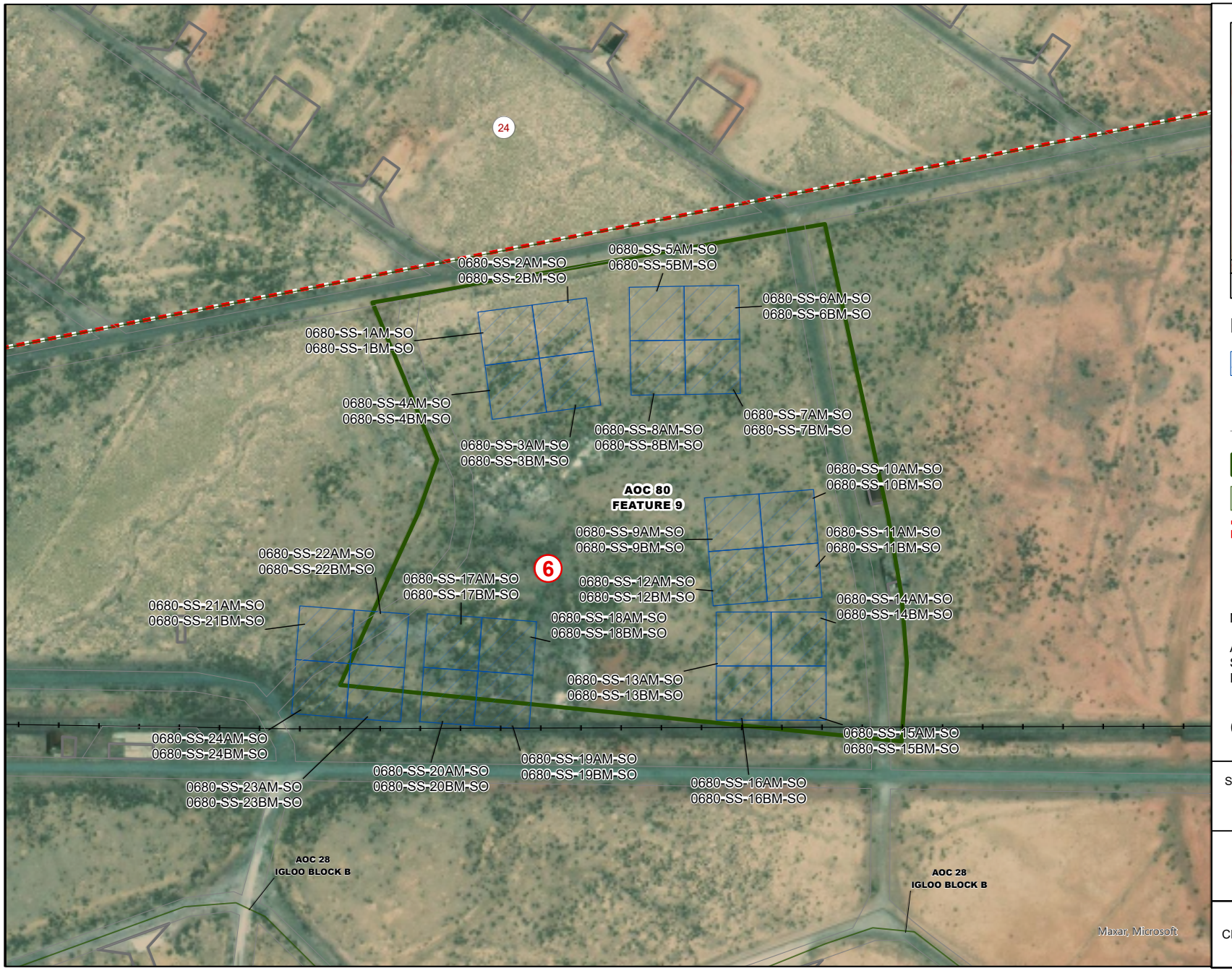

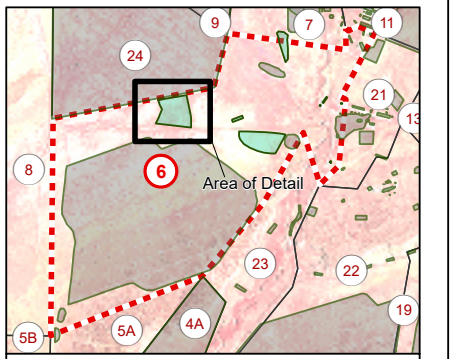

Parcel 6 Detail

Legend

- Previous AOC 80 ISM Grid
- Railroad
- Road
- AOC 80
- AOC/SWMU Boundary
- Parcel 6 Boundary

Note:

AOC = Area of Concern
SWMU = Solid Waste Management Unit
ISM = Incremental Sampling Methodology

0 90 180 Feet

N

Supplemental RCRA Facility Investigation Work Plan Parcel 6,
Fort Wingate Depot Activity,
McKinley County, NM

Figure 7.1

AOC 80 - Feature 9
Previous Sample Locations

Client	USACE, Albuquerque District	GIS by	AM	3/25/2025
		Checked by	KS	3/25/2025
		PM	CR	3/25/2025

Path: V:\MMRP_FtWin\ArcPro\Parcel6\WorkPlan\Wingate_P6_Samples.aprx Layout: AOC 80
Date Saved: 3/25/2025 11:15 AM Date Exported:3/25/2025 11:58 AM

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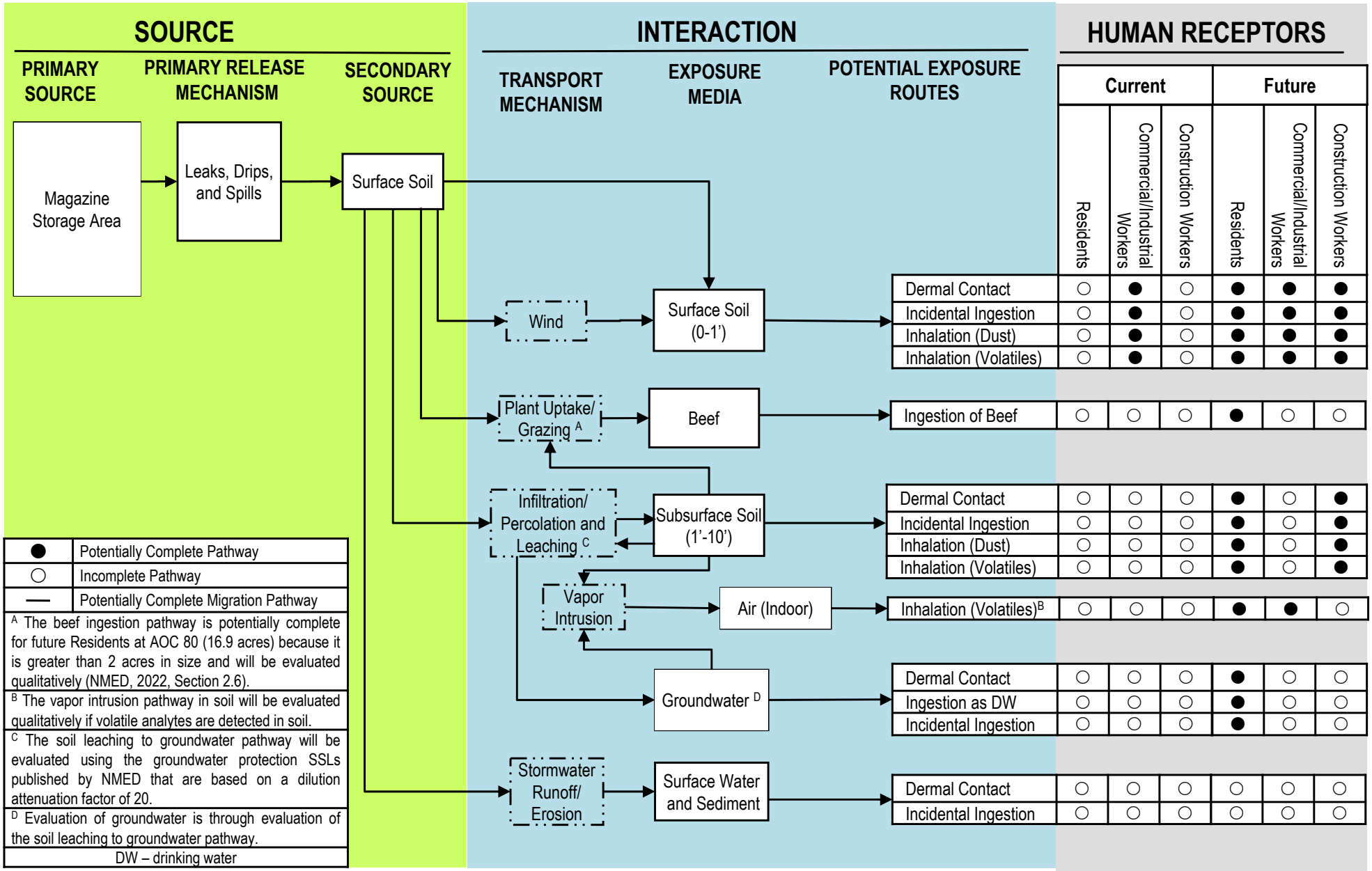
FIGURE 7.2
AOC 80 Preliminary Human Health Conceptual Site Model

Site Name: Parcel 6, Fort Wingate Depot Activity, McKinley County, New Mexico

Completed By: Jessica Hinger, PARSONS ***Date Completed:*** May 15, 2024



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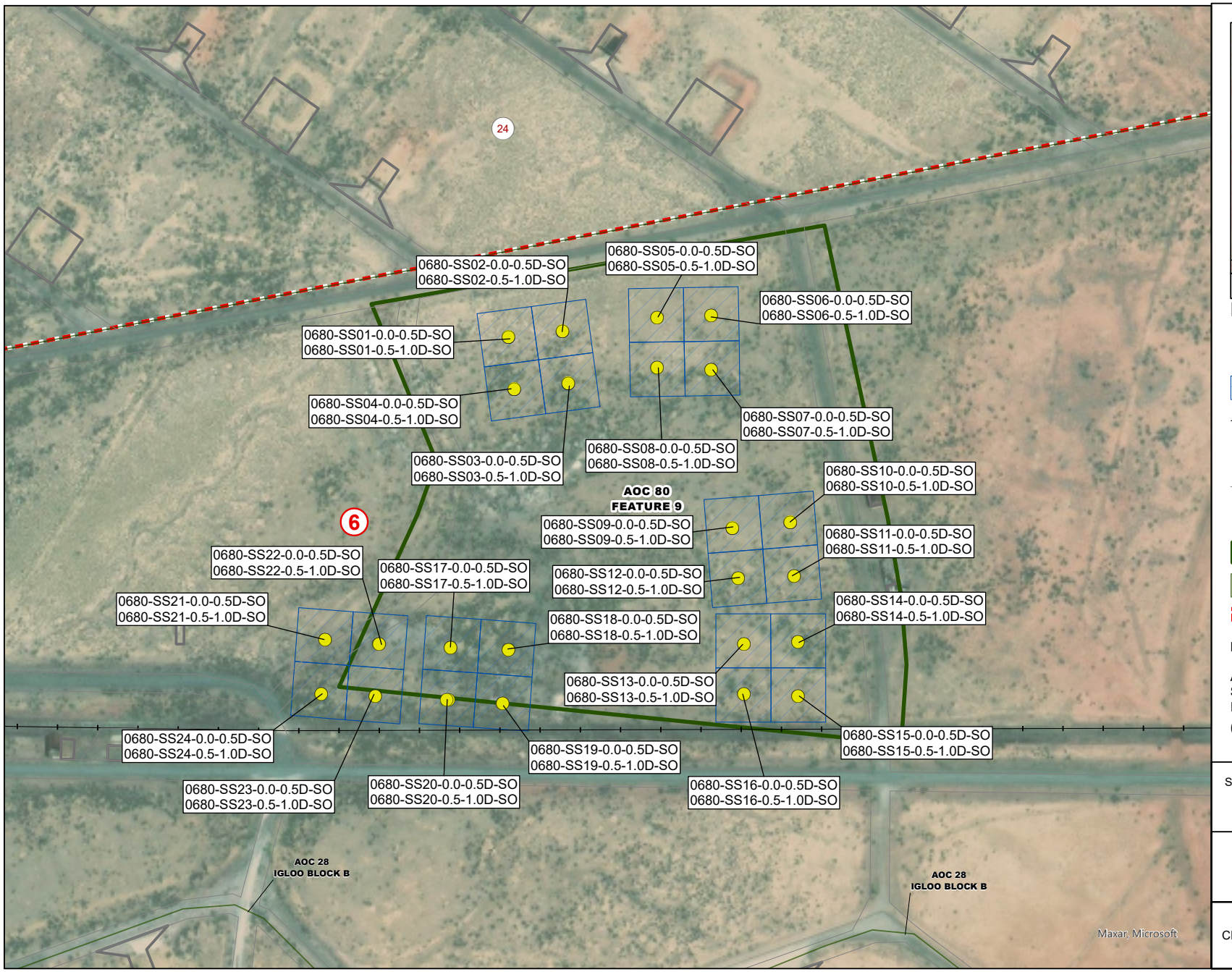

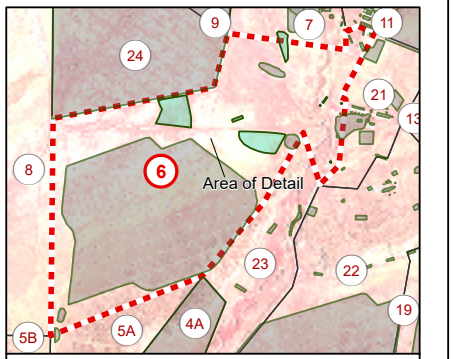

Parcel 6 Detail

Legend

- Proposed Surface Soil Sample Location
- Previous AOC 80 ISM Grid
- Sanitary Sewer
- Sanitary Manhole
- Road
- Railroad
- AOC 80
- AOC/SWMU Boundary
- Parcel 6 Boundary

Note:

AOC = Area of Concern
SWMU = Solid Waste Management Unit
ISM = Incremental Sampling Methodology

0 90 180 Feet

N

Supplemental RCRA Facility Investigation Work Plan Parcel 6,
Fort Wingate Depot Activity,
McKinley County, NM

Figure 7.3

AOC 80 - Feature 9
Proposed Sample Locations

Client	USACE, Albuquerque District	GIS by	AM	3/25/2025
		Checked by	KS	3/25/2025
		PM	CR	3/25/2025

Path: V:\MMRP_FtWin\ArcPro\Parcel6\WorkPlan\Wingate_P6_Samples.aprx Layout: AOC 80_Proposed
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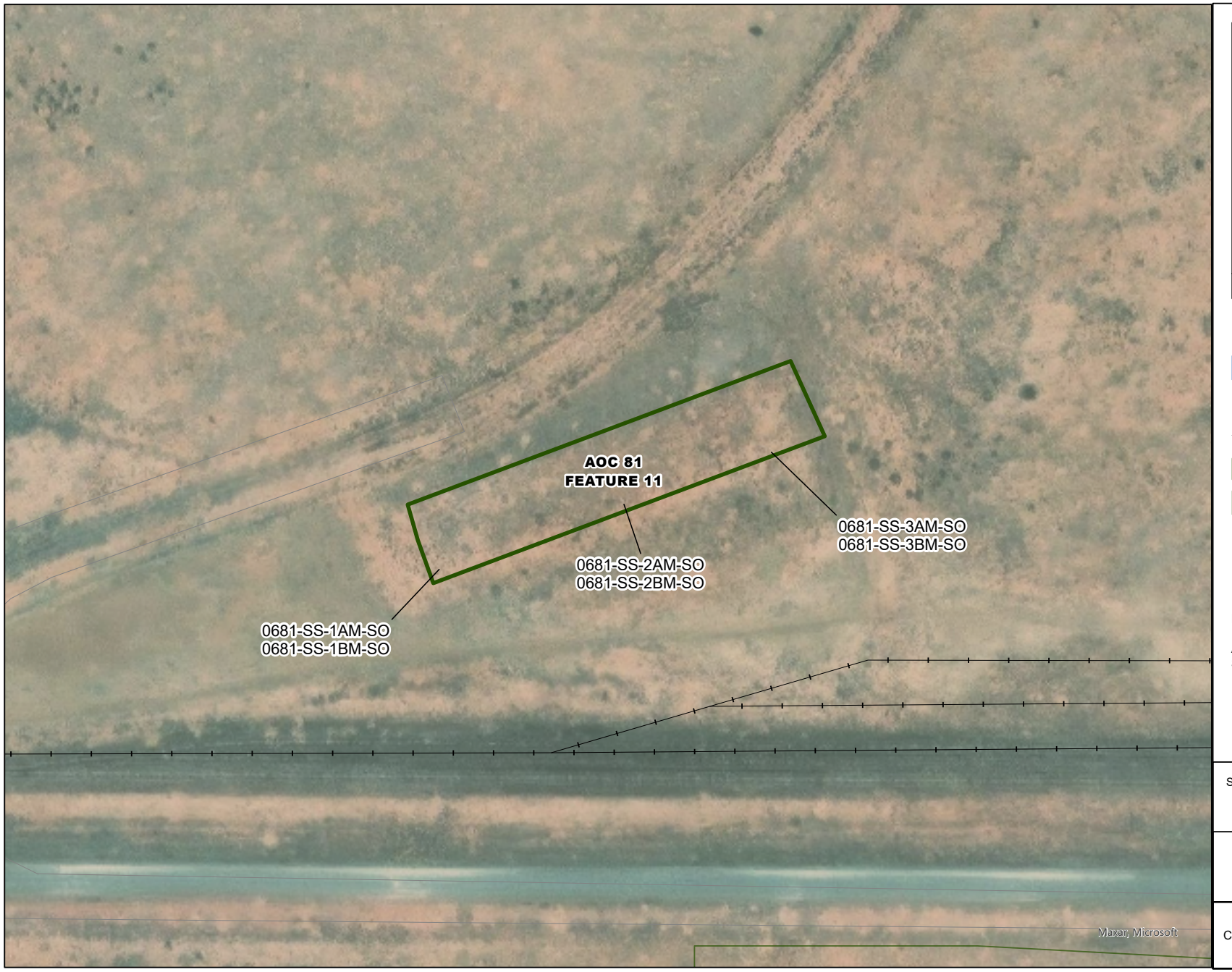

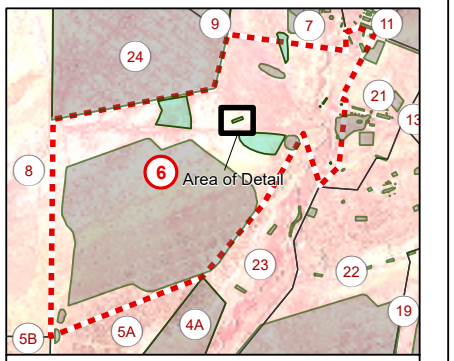

Parcel 6 Detail

Legend

- Previous AOC 81 ISM Grid
- Railroad
- Road
- AOC 81
- AOC/SWMU Boundary
- Parcel 6 Boundary

Note:

AOC = Area of Concern
SWMU = Solid Waste Management Unit
ISM = Incremental Sampling Methodology

0 40 80 Feet

N

Supplemental RCRA Facility Investigation Work Plan Parcel 6,
Fort Wingate Depot Activity,
McKinley County, NM

Figure 8.1

AOC 81 - Feature 11
Previous Sample Locations

Client	USACE, Albuquerque District	GIS by	AM	3/25/2025
		Checked by	KS	3/25/2025
		PM	CR	3/25/2025

Path: V:\MMRP_FtWin\ArcPro\Parcel6\WorkPlan\Wingate_P6_Samples.aprx Layout: AOC 81
Date Saved: 3/25/2025 11:15 AM Date Exported:3/25/2025 12:01 PM

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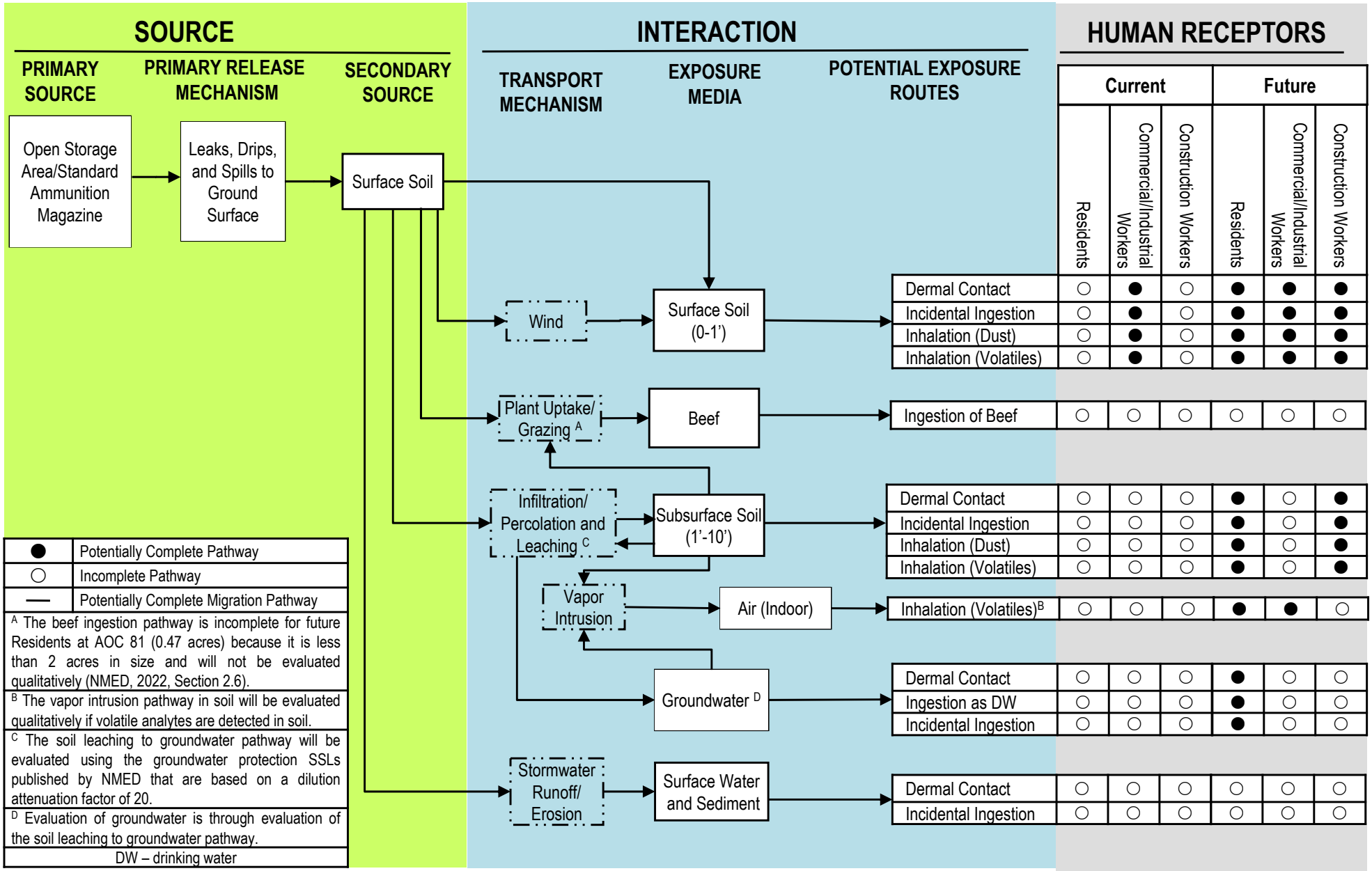
FIGURE 8.2
AOC 81 Preliminary Human Health Conceptual Site Model

Site Name: Parcel 6, Fort Wingate Depot Activity, McKinley County, New Mexico

Completed By: Jessica Hinger, PARSONS ***Date Completed:*** May 15, 2024



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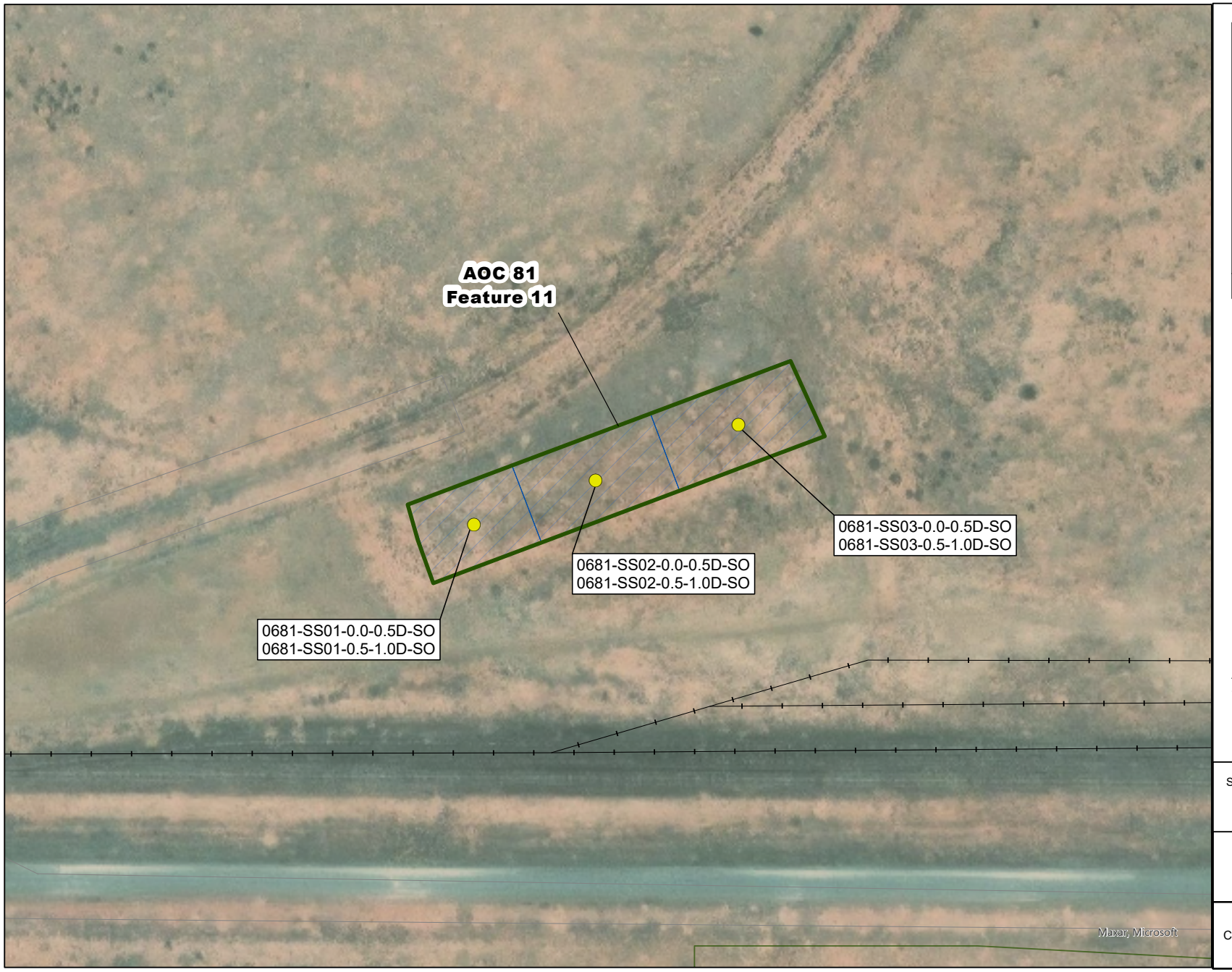

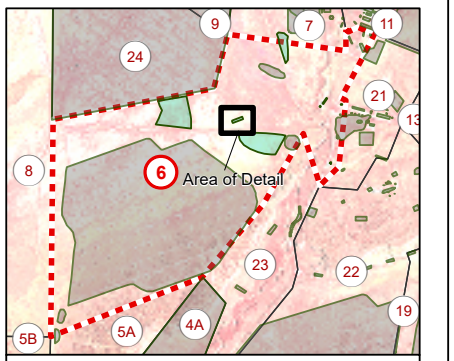

Parcel 6 Detail

Legend

- Proposed Surface Soil Sample Location
- Previous AOC 81 ISM Grid
- Sanitary Sewer
- Sanitary Manhole
- Road
- Railroad
- AOC 81
- AOC/SWMU Boundary
- Parcel 6 Boundary

Note:

AOC = Area of Concern
SWMU = Solid Waste Management Unit
ISM = Incremental Sampling Methodology

0 40 80 Feet

N

Supplemental RCRA Facility Investigation Work Plan Parcel 6,
Fort Wingate Depot Activity,
McKinley County, NM

Figure 8.3

AOC 81 - Feature 11
Proposed Sample Locations

Client	USACE, Albuquerque District	GIS by	AM	3/25/2025
		Checked by	KS	3/25/2025
		PM	CR	3/25/2025

Path: V:\MMRP_FtWin\ArcPro\Parcel6\WorkPlan\Wingate_P6_Samples.aprx Layout: AOC 81_Proposed
Date Saved: 3/25/2025 11:15 AM Date Exported:3/25/2025 12:03 PM

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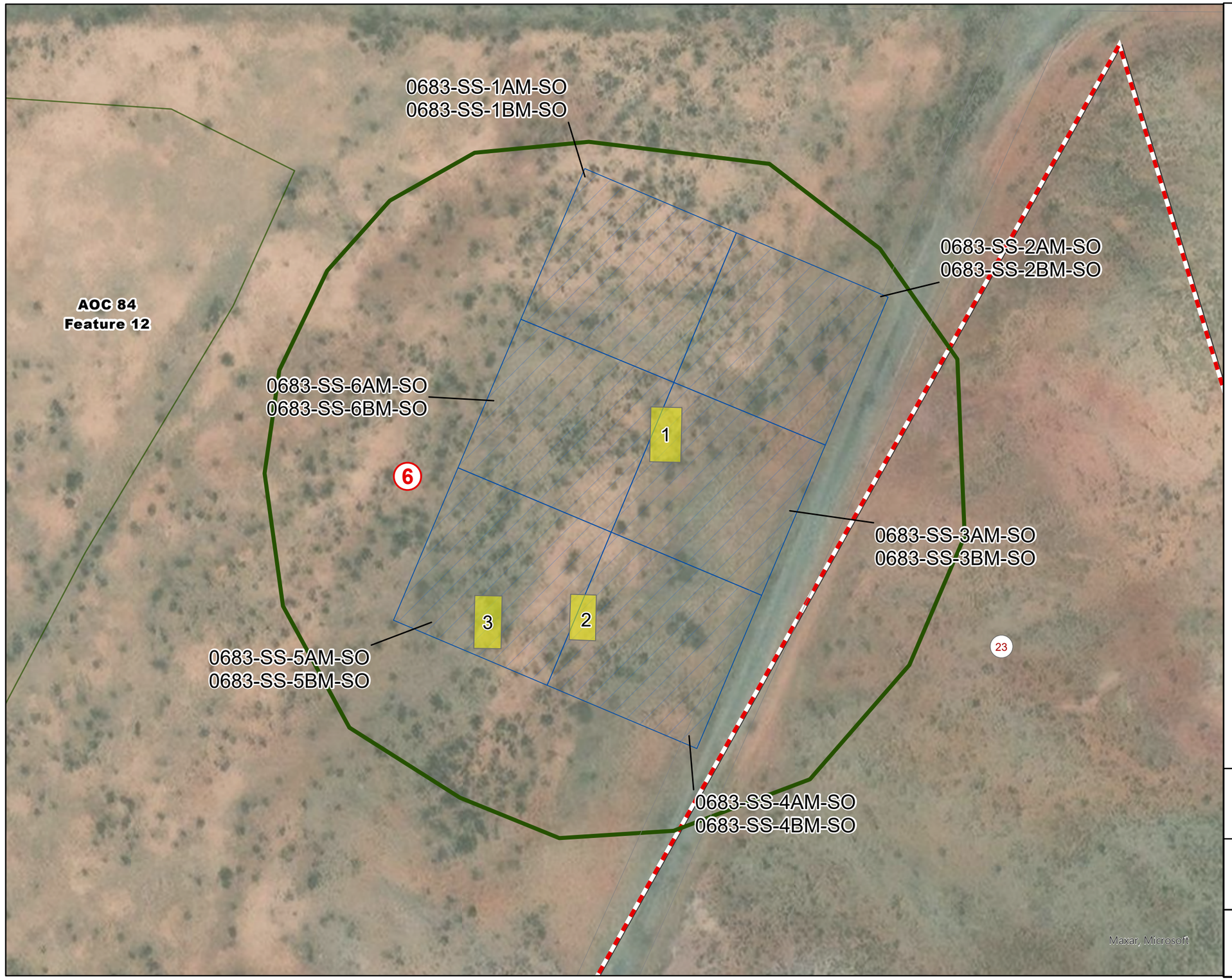

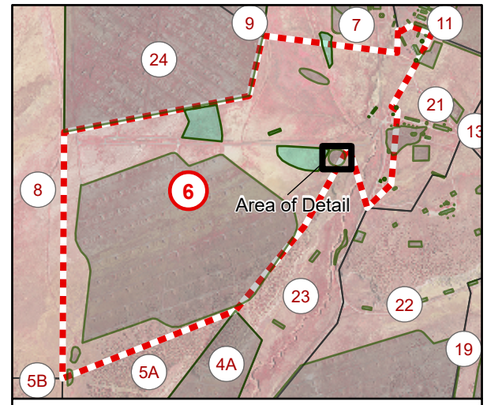

Parcel 6 Detail

Legend

- Previous AOC 83 ISM Grid
- Road
- RFI Test Trenches
- AOC 83
- AOC
- Parcel 6 Boundary

Note:

AOC = Area of Concern
ISM = Incremental Sampling Methodology

0 60 120 Feet

N

Supplemental RCRA Facility Investigation Work Plan Parcel 6,
Fort Wingate Depot Activity,
McKinley County, NM

Figure 9.1

AOC 83 - Feature 22
Previous Sample Locations

Client	USACE, Albuquerque District	GIS by	AM	6/16/2025
		Checked by	KS	6/16/2025
		PM	CR	6/16/2025

Path: V:\MMRP_FtWin\ArcPro\Parcel6\WorkPlan\Wingate_P6_Samples.aprx Layout: AOC 83
Date Saved: 6/16/2025 5:05 PM Date Exported:6/16/2025 5:06 PM

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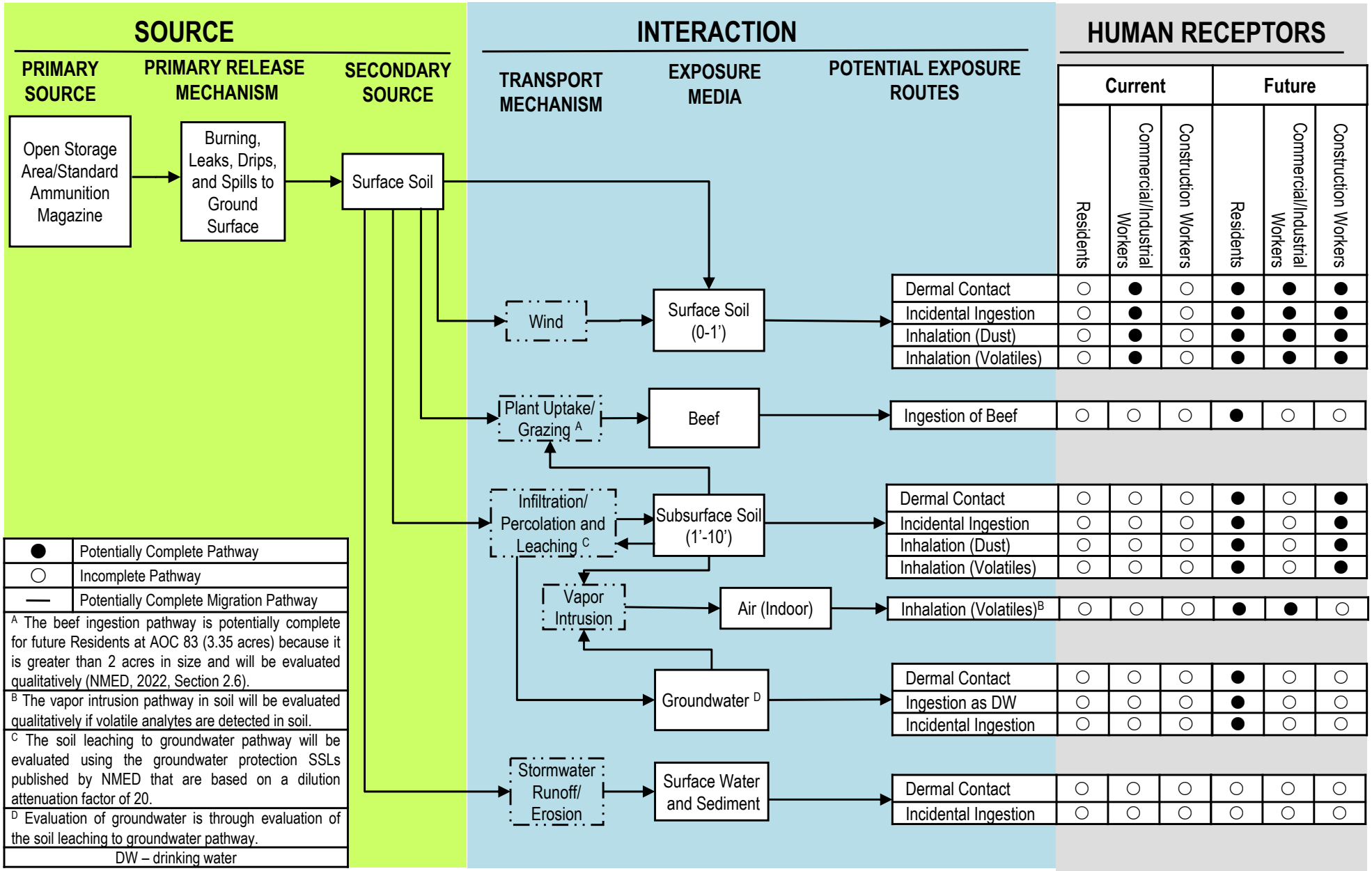
FIGURE 9.2
AOC 83 Preliminary Human Health Conceptual Site Model

Site Name: Parcel 6, Fort Wingate Depot Activity, McKinley County, New Mexico

Completed By: Georgia Caplen, PARSONS ***Date Completed:*** July 9, 2024



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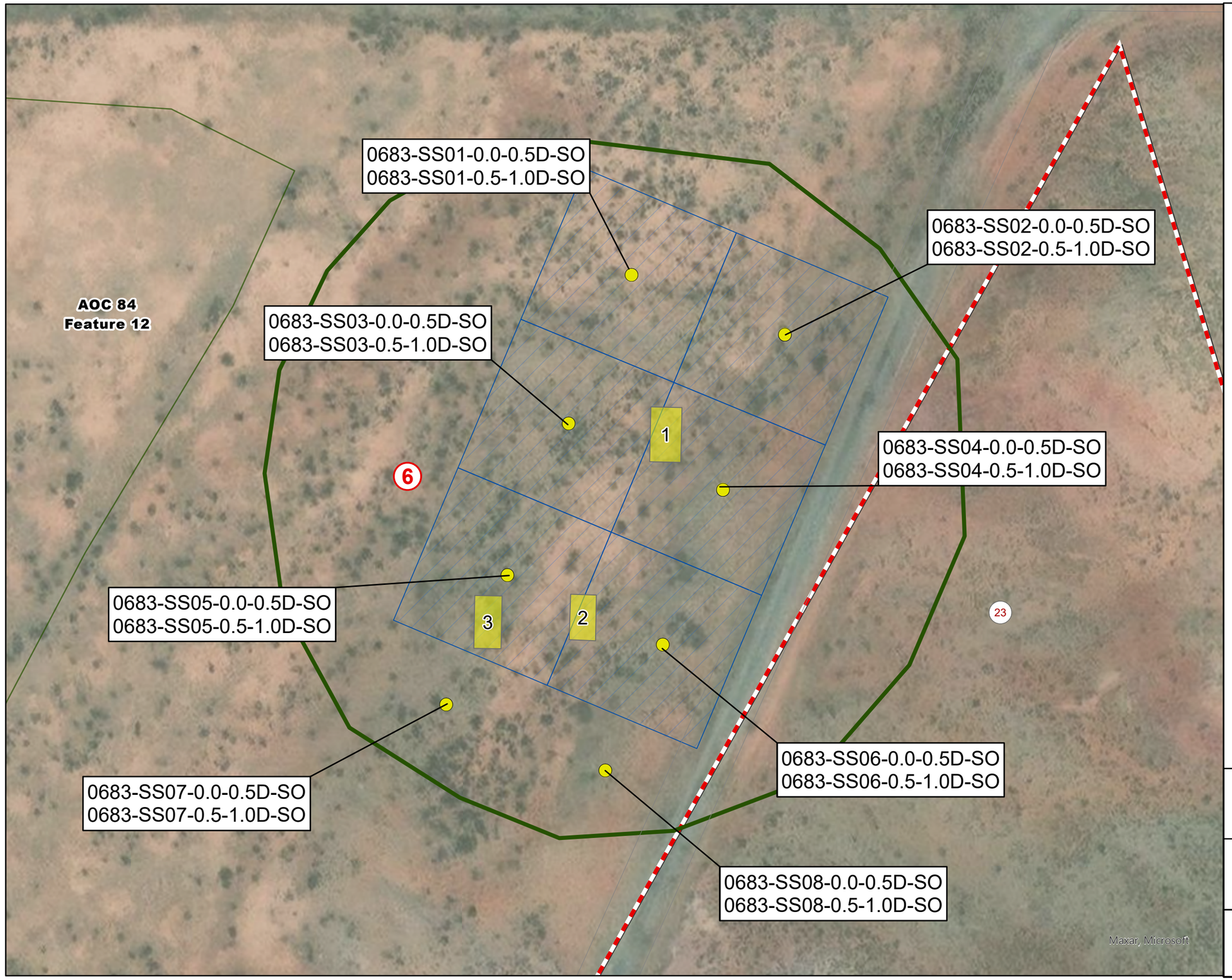

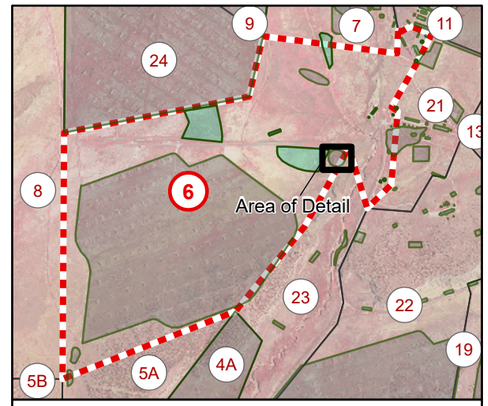

Parcel 6 Detail

Legend

- Previous AOC 83 ISM Grid
- Proposed Surface Soil Sample Location
- Road
- RFI Test Trenches
- AOC 83
- AOC
- Parcel 6 Boundary

Note:

AOC = Area of Concern
ISM = Incremental Sampling Methodology

0 60 120 Feet

N

Supplemental RCRA Facility Investigation Work Plan Parcel 6,
Fort Wingate Depot Activity,
McKinley County, NM

Figure 9.3

AOC 83 - Feature 22
Proposed Sample Locations

Client	USACE, Albuquerque District	GIS by	AM	7/8/2025
		Checked by	KS	7/8/2025
		PM	CR	7/8/2025

Path: V:\MMRP_FtWin\ArcPro\Parcel6\WorkPlan\Wingate_P6_Samples.aprx Layout: AOC 83_Proposed
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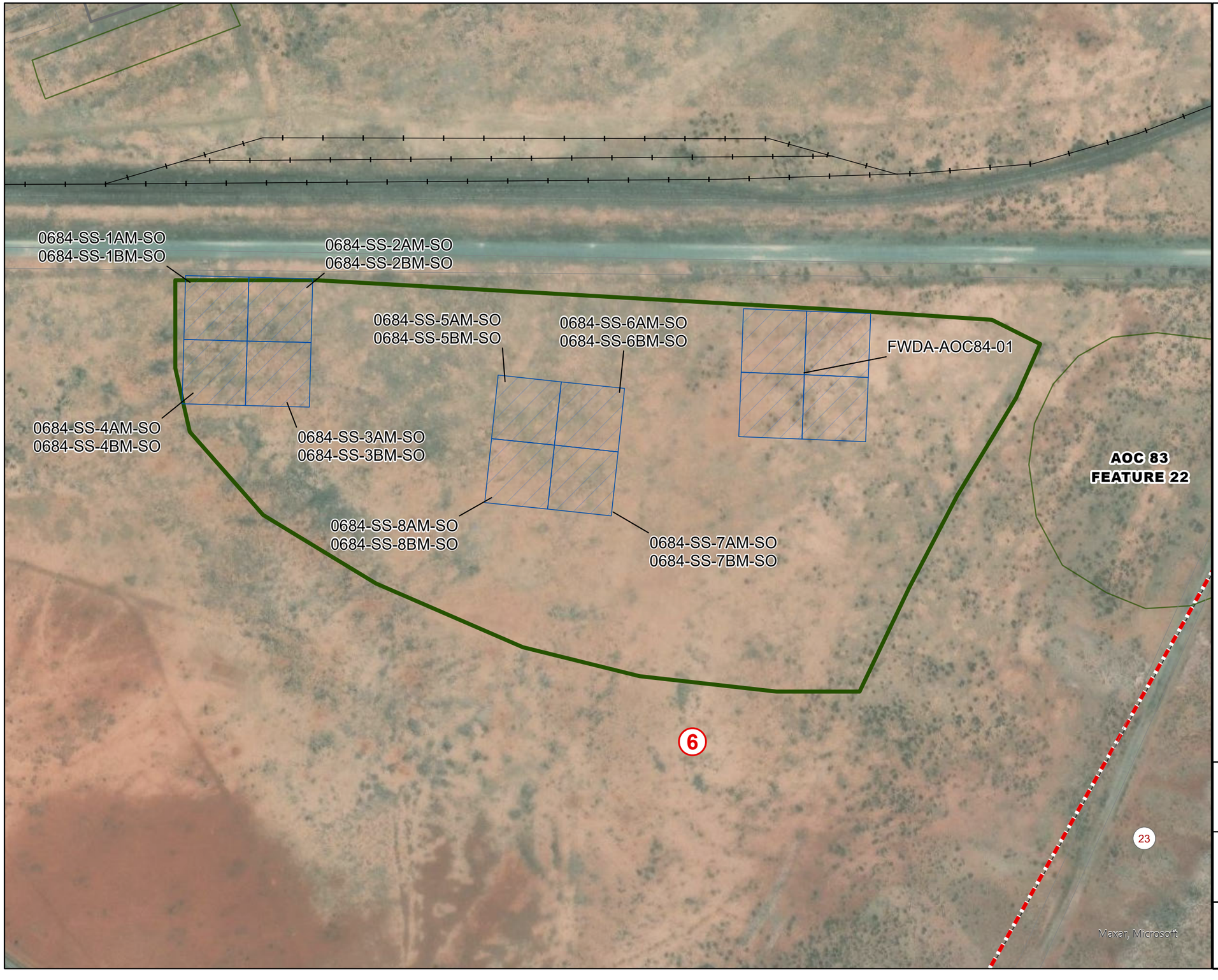

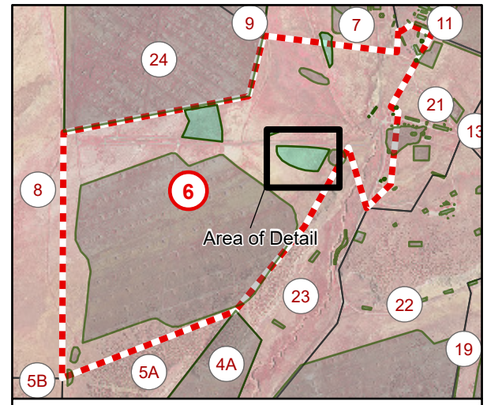

Parcel 6 Detail

Legend

- Previous AOC 84 ISM Grid
- Railroad
- Road
- AOC 84
- AOC Boundary
- Parcel 6 Boundary

Note:

AOC = Area of Concern
ISM = Incremental Sampling Methodology
FWDA-AOC84-01 was sampled during the 2008 release assessment investigation, however no samples were collected at this grid during the 2012 RFI.

0 75 150 Feet

N

Supplemental RCRA Facility Investigation Work Plan Parcel 6,
Fort Wingate Depot Activity,
McKinley County, NM

Figure 10.1

AOC 84 - Feature 12
Previous Sample Locations

Client	USACE, Albuquerque District	GIS by	AM	8/13/2025
		Checked by	KS	8/13/2025
		PM	CR	8/13/2025

Path: V:\MMRP_FtWin\ArcPro\Parcel6\WorkPlan\Wingate_P6_Samples.aprx Layout: AOC 84
Date Saved: 7/14/2025 12:17 PM Date Exported:8/13/2025 11:19 AM

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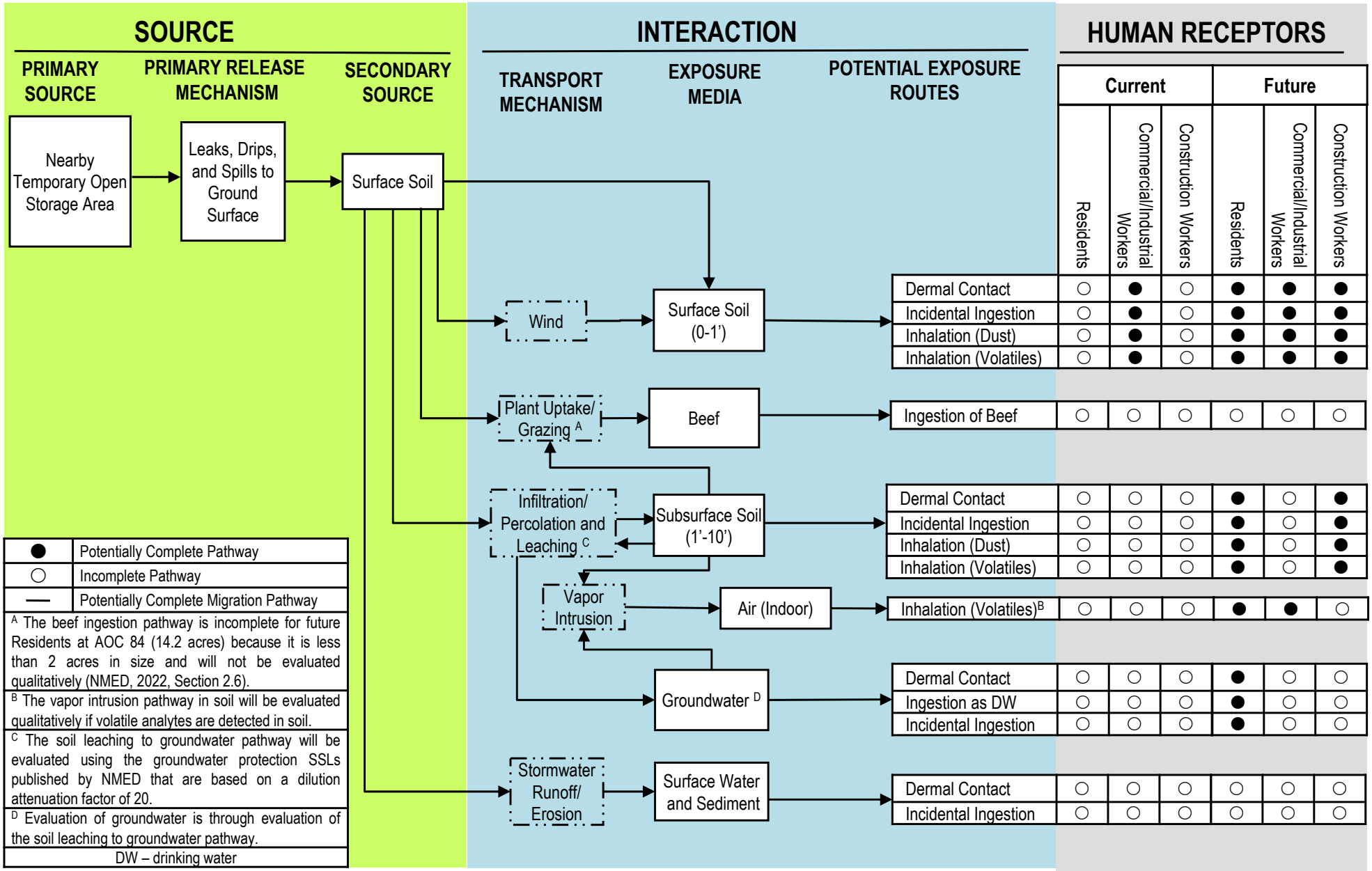
FIGURE 10.2
AOC 84 Preliminary Human Health Conceptual Site Model

Site Name: Parcel 6, Fort Wingate Depot Activity, McKinley County, New Mexico

Completed By: Jessica Hinger, PARSONS ***Date Completed:*** May 15, 2024



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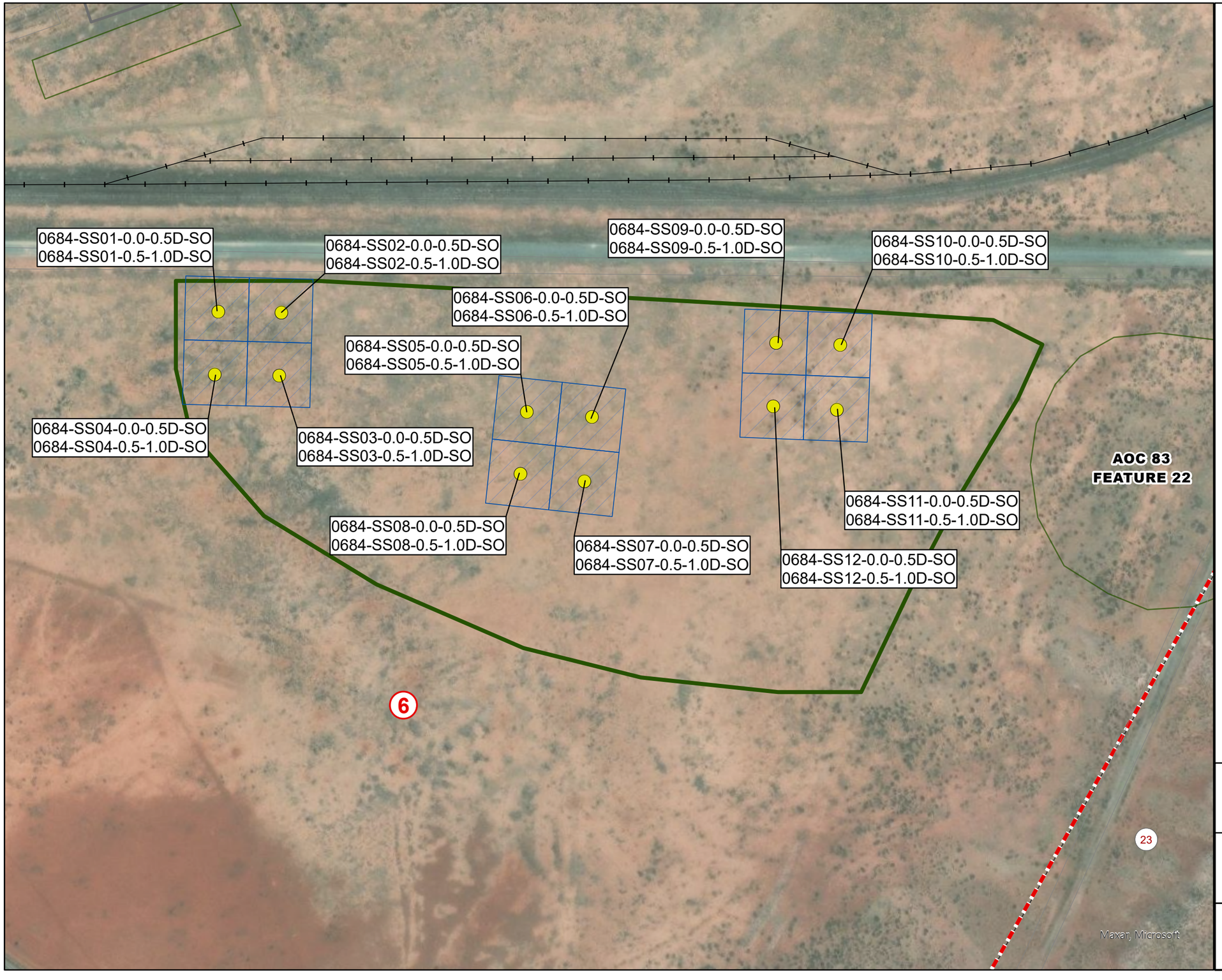

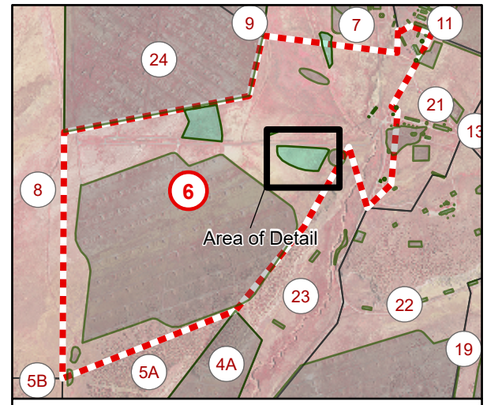

Parcel 6 Detail

Legend

- Previous AOC 84 ISM Grid
- Proposed Surface Soil Sample Location
- Sanitary Manhole
- Sanitary Sewer
- Road
- Railroad
- AOC 84
- AOC Boundary
- Parcel 6 Boundary

Note:

AOC = Area of Concern
ISM = Incremental Sampling Methodology

N

0 75 150 Feet

Supplemental RCRA Facility Investigation Work Plan Parcel 6,
Fort Wingate Depot Activity,
McKinley County, NM

Figure 10.3

AOC 84 - Feature 12
Proposed Sample Locations

Client	USACE, Albuquerque District	GIS by	AM	6/16/2025
		Checked by	KS	6/16/2025
		PM	CR	6/16/2025

Path: V:\MMRP_FtWin\ArcPro\Parcel6\WorkPlan\Wingate_P6_Samples.aprx Layout: AOC 84_Proposed
Date Saved: 6/16/2025 4:12 PM Date Exported:6/16/2025 4:16 PM

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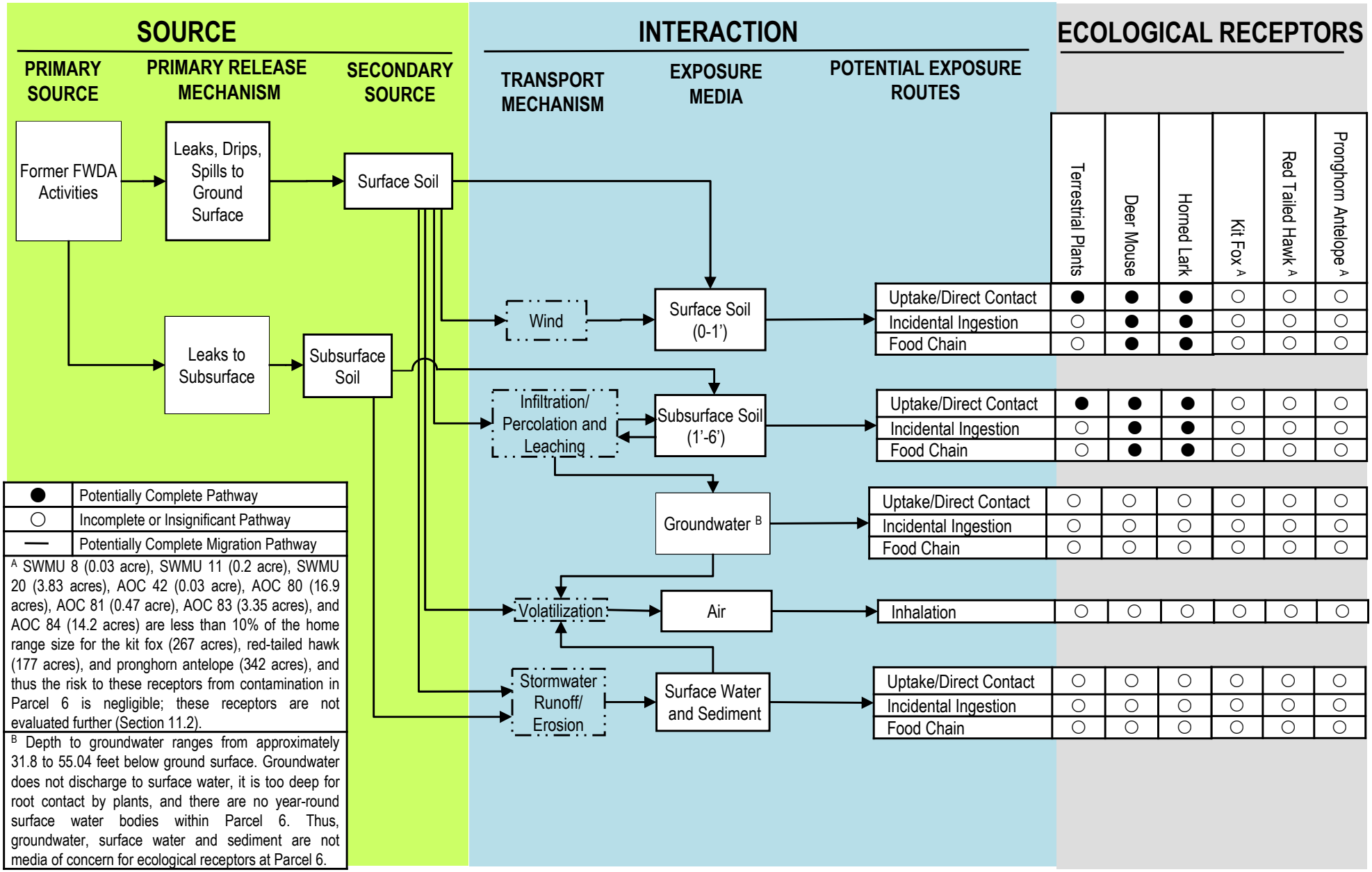
FIGURE 12.1
Preliminary Ecological Conceptual Site Model

Site Name: Parcel 6, Fort Wingate Depot Activity, McKinley County, New Mexico

Completed By: Cortnie Lewis, PARSONS ***Date Completed:*** June 25, 2026



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APPENDIX A
NMED Disapproval Letters and Army Responses

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State of New Mexico
ENVIRONMENT DEPARTMENT

Hazardous Waste Bureau

2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6313
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www.env.nm.gov

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Governor
JOHN A. SANCHEZ
Lieutenant Governor

BUTCH TONGATE
Cabinet Secretary
J. C. BORREGO
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

April 3, 2018

Mark Patterson
BRAC Environmental Coordinator
Fort Wingate Depot Activity
13497 Elton Road
North Lima, OH 44452

Steve Smith
USACE
CESWF-PER-DD
819 Taylor Street, Room 3B06
Fort Worth, TX 76102

RE: SECOND EXTENSION REQUEST
FINAL RCRA FACILITY INVESTIGATION REPORT PARCEL 6
FORT WINGATE DEPOT ACTIVITY
MCKINLEY COUNTY, NEW MEXICO
EPA # NM6213820974
HWB-FWDA-12-008

Dear Messrs. Patterson and Smith:

The New Mexico Environment Department (NMED) is in receipt of the Fort Wingate Depot Activity's (Permittee) letter requesting an extension for the revised *Final RCRA Facility Investigation Report* (Report), dated March 21, 2018 and received March 26, 2018. The Permittee requires additional time to prepare the revised document. This is the second request for an extension for this revised Report (previous extension granted on March 30, 2017). This extension effectively extends the submittal date two years beyond the original date of March 31, 2017.

The Permittee has shown good cause for an extension; therefore, NMED hereby grants the extension. The date to submit the revised Report has been changed to **March 29, 2019**.

If you have any questions regarding this letter, please contact Ben Wear at (505) 476-6041.

Sincerely,

John E. Kieling
Chief
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB
B. Wear, NMED HWB
M. Suzuki, NMED HWB
C. Hendrickson, U.S. EPA Region 6
L. Rodgers, Navajo Nation
S. Begay-Platero, Navajo Nation
M. Harrington, Pueblo of Zuni
C. Seoutewa, Southwest Region BIA
G. Padilla, Navajo BIA
J. Wilson, BIA
B. Howerton, BIA
R. White, BIA
C. Esler, Sundance Consulting, Inc.

File: FWDA 2018 and Reading, Parcel 6, FWDA-12-008

State of New Mexico
ENVIRONMENT DEPARTMENT

Hazardous Waste Bureau

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SUSANA MARTINEZ
Governor
JOHN A. SANCHEZ
Lieutenant Governor

BUTCH TONGATE
Cabinet Secretary
BRUCE YURDIN
Acting Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

November 7, 2018

Mark Patterson
BRAC Environmental Coordinator
Fort Wingate Depot Activity
13497 Elton Road
North Lima, OH 44452

Steve Smith
USACE
CESWF-PER-DD
819 Taylor Street, Room 3B06
Fort Worth, TX 76102

RE: DISAPPROVAL
FINAL PERMITTEE-INITIATED INTERIM MEASURES REPORT
PARCEL 6, REVISION 1
FORT WINGATE DEPOT ACTIVITY
MCKINLEY COUNTY, NEW MEXICO
EPA ID# NM6213820974
HWB-FWDA-16-011

Dear Messrs. Patterson and Smith:

The New Mexico Environment Department (NMED) is in receipt of the Fort Wingate Depot Activity (Permittee) *Final Permittee-Initiated Interim Measures Report Parcel 6, Revision 1* (Report), dated July 27, 2018. NMED has reviewed the Report and hereby issues this Disapproval. The Permittee must address the following comments.

1. Response to NMED's August 21, 2017 Disapproval Comment 2

Permittee Statements: "The removal action at SWMU 8 occurred in 4 separate phases. One waste profile sample was collected following the initial removal on 10/20/15; 2 samples were collected on 12/08/15; a 4th sample was collected on 5/12/16; and a fifth sample was collected on January 18, 2018."
and,
"The text was revised to reflect that 5 waste profile samples were collected [in Section 5.3]."

NMED Comment: In Section 5.3, *Waste Profile Sampling and Disposal,* lines 22-24, page 5-2, the Permittee states, "[c]opies of waste profile laboratory report summary and waste manifests and landfill weigh tickets are included in Appendix G." Appendix G notes, "[d]ue to the excessive number of scanned pages, this appendix has not been tagged for accessibility." The information presented in Appendix G is not organized in a reviewable manner. Provide a table summarizing the analytical results for all waste profile samples collected for Solid Waste Management Unit (SWMU) 8 in the revised Report. In addition, all appendices must be organized reviewable manner for readers (e.g., table of contents) and include bookmarks in the electronic version.

2. Responses to NMED's August 21, 2017 Disapproval Comments 4 and 6

Permittee Statements: "In cases where it is not possible to meet sensitivity criteria the laboratory will be instructed to inform the Army prior to completing a work plan."

NMED Comment: Comment 2 in NMED's *Approval with Modifications for Final 2017 Interim Facility-wide Groundwater Monitoring Plan, Version 10 Revision 1,* dated October 22, 2018, provides further instruction regarding the issue. No response is required.

3. Sampling Result Tables

NMED Comment: Tables 5-1A, 5-1B, 6-1A, 6-1B, and others list all analytes for all analytical methods applied to the samples. This is a departure from the standard practice of presenting data in tables based on the analytical group (e.g., a table for VOCs, a table for SVOCs, a table for metals, etc.). Presenting data for all analytes in one table increases review time for a document based on the difficulty of finding a specific analyte for a specific sample in a single 320-page table that spans two volumes (Table 6-1B). Revise the Report to present data in tables specific to analyte groups as has been performed in the past. This applies to all tables where data is presented in this and all future documents.

4. Electronic Database

NMED Comment: The Permittee failed to submit an electronic database that includes all historical data for Parcel 6 in the Report, which has been provided historically. The document cannot be fully reviewed without the electronic database. For all documents that include analytical data, the Permittee must include a searchable electronic file with all historical data included in a format acceptable to NMED. Provide the searchable electronic data in the revised Report.

5. Analytical Laboratory Reports

NMED Comment: The Report includes Level IV reports from the analytical laboratories. This has resulted in over 18,000 pages of laboratory reports for this Report. This level of reporting is rarely needed and cumbersome. NMED requests that only Level II analytical laboratory reports be included with all submittals. Revise the Report by substituting the Level

II reports for the Level IV analytical reports. In addition, for large appendices such as the 12,228-page Appendix J where multiple analytical and quality assurance/quality control reports are included, the Permittee must include descriptive bookmarks indicating where each new report begins.

6. Sample to Analytical Laboratory Report Link

NMED Comment: The Permittee provided large quantities of data with no indication where to locate a specific sample within a specific analytical laboratory report. For this document alone, the Permittee provided over 18,000 pages of analytical laboratory reports with no indication of where a specific sample can be located. For every document that includes analytical data, provide a link for each specific sample to a specific lab report filename (if multiple files are provided) or to a page number in the appendix where the specific lab report can be found (if multiple lab reports are combined into one large file). For Appendices C and F, the lab reports are indexed by lab report number. The Permittee must provide a link to the lab report number for each analyte. For Appendix J, no indexing is provided and multiple laboratory reports are combined. The Permittee must either provide indexing for each report and indicate which particular report contains a particular sample, or provide specific page numbers for each sample ID that indicates where the sample can be found in the lab reports. This information can be provided either in a new table or in the analytical data electronic database.

7. Section 2.2, Remediation Goals, lines 7-13, and Section 2.2.1, Human Health Screening Levels and Risk Evaluation Approach, lines 30-33, page 2-2

Permittee Statements: "The risk evaluation inititally [sic] presented in the October 2016 PIIM Report used the July 2015 NMED risk guidance because the risk evaluation started in 2016 prior to NMED issuing the March 2017 (Revised) edition of the its risk guidance. This PIIM report retains use of the 2015 NMED SSLs and 2015 USEPA RSLs, as allowed by NMED consistent with Comment 4 on the Final RCRA Facility Investigation Report for Parcel 7 (NMED, 2017a) that states, "If the risk assessment is already in progress (e.g., started or being revised through comments), NMED allows the older version of the guidance to be followed.", and
"The screening levels used in the human health risk evaluation were those appropriate for evaluating residential receptors exposed to COPCs in soil through the direct contact pathway and the soil to groundwater pathway, and that were in effect at the time the original risk evaluation was submitted to NMED (October 2016).

NMED Comment: The Permittee used a statement taken out of context from NMED comments on another Parcel's investigation report to justify use of the 2015 risk guidance. The Permittee failed to include that field work continued to be conducted through 2018 for this investigation. In addition, while the initial risk evaluation was submitted in 2016, the Permittee had not completed the scope of the investigation as approved by NMED; therefore, risk evaluation at that time was not appropriate. NMED's policy is that the risk assessment guidance that is in effect when the field work is completed is the appropriate guidance to

follow. Therefore, the Permittee must reevaluate the risk related to Parcel 6 based on NMED's March 2017 *Risk Assessment Guidance for Site Investigations and Remediations* (Guidance). Revise the Report to include risk assessment based on the appropriate guidance.

8. Section 4.5, Confirmation Sampling Results, lines 14-15, page 4-2

Permittee Statement: "Based on the confirmation sampling, soil removal for lead in AOC 28 -Igloo Block B is considered complete."

NMED Comment: NMED does not agree with this statement. The Permittee has been directed through comments in multiple documents that direct comparison of multi-incremental (MI) samples to SSLs is not appropriate for compliance purposes. Disregarding NMED's comments without adequate justification constitutes non-compliance. Further characterization is required at multiple apron sites where MI sample concentrations exceeded the background concentration for lead and multiplication of the sample concentration by the number of subsamples results in exceedance of the SSL. A preliminary review of the data indicates that 55 MI samples from decision units in Igloo Block B fit the criteria above and require further characterization. Review the data for the aprons and propose to submit a Phase 2 interim measures work plan that proposes to further subdivide the decision units for collection of MI samples or collect discrete samples where further characterization is warranted in the revised Report.

9. Section 4.8.3, Background Threshold Values, lines 32-33, page 4-7

Permittee Statement: "However, an evaluation of metals background may not be conducted if a cumulative risk evaluation is not required because only one analyte is detected."

NMED Comment: The statement is not correct. Regardless of the number of contaminants of potential concern (COPCs), it is acceptable to screen out site concentrations as being within background levels. If the site metal concentrations were within background levels, eliminating all COPCs, no risk assessment would be required. For Area of Concern (AOC) 28, because the background reference value for lead (12.4 milligrams per kilogram, mg/kg) is significantly below the direct contact residential soil screening levels (SSLs) (400 mg/kg residential and 800 mg/kg industrial/construction), retention and/or elimination of lead as a COPC through site attribution analysis does not impact the conclusions for this site. Revise the Report accordingly.

10. Section 4.8.9, Risk Evaluation Results – Human Health, lines 17-18, page 4-9

Permittee Statement: "The results of the risk screening are illustrated in Table 4-1. All lead results were below the screening level."

NMED Comment: The evaluation of the data for AOC 28 does not include an evaluation of the soil-to-groundwater pathway. All of the data provided in Table 4-1 that are not reflective of background levels exceed the lead soil-to-groundwater screening level based on a dilution

attenuation factor (DAF) of 20. However, given the site history, small areas of impact and comparison to background levels, it is unlikely that impact to groundwater has occurred. Revise the Report to address the soil-to-groundwater pathway and provide lines of evidence to demonstrate why it is incomplete in the revised Report.

11. Section 5.1, Previous Investigations, lines 8-9, page 5-1

Permittee Statement: "Former Building 537 was also used to store containers of pesticides and was demolished in 2010."

NMED Comment: An inspection for asbestos-containing materials (ACM) must be conducted during the investigation in accordance with Permit Section VIII.A.1.e. If ACM is found, the soil must be analyzed for the presence of asbestos. Propose to submit a phase 2 interim measures work plan to evaluate for the presence of ACM in SWMU 8 in the revised Report.

12. Section 5.4, Confirmation Sampling, lines 8-9 and 14-15, page 5-4

Permittee Statements: "[The analytical results indicated that COPC concentrations exceeded the screening levels in] one sample from Area B (0608B537BEC-0.0-0.5D-SO) [in SWMU 8],"
and,
"One discrete bottom sample (0608B537BEC-1.0-1.5D-SO) was collected from Area B."

NMED Comment: The second confirmation sample was designated as 0608B537BEC-2.0-2.5D-SO in Table 5-1B, *SWMU 8 – Former Building 537 Excavation Confirmation Sampling Results (all results)*. Correct the discrepancy in the revised Report.

13. Section 5.6.2.8.2, Initial Cumulative Risk Evaluation, Residential Receptors (Area A through E), lines 10-12, page 5-15

Permittee Statement: "The results of the cumulative evaluation for the direct contact pathway are presented in Table 5-3A, and indicate the estimated cancer risk of $1.5x10^{-5}$ is greater than the NMED target risk threshold of $1x10^{-5}$."

NMED Comment: The 2015 NMED Soil Screening Levels were applied. If the 2017 NMED Soil Screening Levels had been applied, it is likely the initial screen would have met target risk levels. Although the refined risk assessment, using the 95% upper confidence level of the mean, resulted in acceptable risk levels, use of the current screening levels would have resulted in less cumbersome assessments with less refinement and justification needed to address uncertainties. Revise the Report to use the 2017 SSLs.

14. Table 5-2, Quantitation Limits Compared to Human Health Soil Screening Levels - Direct Contact, p 5-T137 and Table 5-5, SWMU 9 - POL Discharge Area - Quantitation Limits Compared to Ecological Screening, p 5-T145, etc.

NMED Comment: According to Tables 5-2 and 5-5, there were multiple analytes with quantitation limits that exceeded the residential and ecological soil screening levels. Quantitation limits that exceed screening levels make it impossible for the Permittee to demonstrate, or for NMED to defend, that contamination is not present at unacceptable concentrations at the facility. The Permittee must make a concerted effort to identify analytical laboratories that can achieve appropriate quantitation limits that are below the screening levels. Revise the Report to discuss efforts to achieve appropriate quantitation limits as detailed above.

15. Section 6.4, Confirmation Sampling, lines 33-38, page 6-2 and line 1, page 6-3

Permittee Statement: "The analytical results indicated that COPC concentrations exceeded the NMED direct contact [soil screening levels] SSLs in two samples from Area A (4AEC05-0.0-0.5D-SO and 4AEC08-0.0-0.5D-SO) and in one sample from Area B (4BEC03-0.0-0.5D-SO). Additional soil was removed from Areas A and B and three new confirmation samples were collected on March 7, 2016 (4AEC05-1.0 1.5D-SO, 4AEC08-1.0-1.5D-SO, and 4BEC03-1.0-1.5D-SO). The analytical results from the three new confirmation samples indicated that COPC concentrations were below the NMED direct contact SSL."

NMED Comment: The Permittee returned to the field during 2017 and 2018 to collect samples required by the NMED-approved work plan that were omitted during the initial field work. Three of the collected samples from SWMU 20, Feature 4 exceeded the SSLs for SVOCs, yet discussion of these results was not provided in the text. Table 6-1A, *Excavation Confirmation Sampling Results (detections only)* and Figure 6-3, *Exceedance Area Map, Human Receptors,* indicate that the concentrations of COPCs exceeded the applicable screening levels in the soil samples collected from 4AEC-05D-SO, 4BEC-03D-SO, and 4BEC-28D-SO. The soils that contain these exceedances are still present. The Permittee must propose to collect step-out and deeper samples to define the extent of contamination, remove the soils where the exceedances are detected, and conduct confirmation sampling after removal of the contaminated soils. Use of the 2017 Guidance, which increased the direct contact SSL concentration for benzo(a)pyrene, results in only one exceedance versus three. Propose to submit a phase 2 interim measures work plan to define and remediate the SVOC contamination at this location in the revised Report.

16. Section 6.6.2.5, Screening Levels, lines 30-33, page 6-9

Permittee Statement: "Direct contact pathway – SSLs for residential receptors and construction workers identified in NMED risk guidance (NMED, 2015b) were considered in the human health risk evaluation, with the exception of arsenic in soil where NMED is allowing use of the site-specific background level of 5.6 mg/kg in lieu of the NMED screening level."

NMED Comment: The site-specific background level of 5.6 mg/kg was used to screen arsenic as a potential COPC and for assessing site risk. The agreement with NMED to use 5.6 mg/kg for screening purposes was based on the fact that at the time of this agreement, the SSL for arsenic was below the background level. However, the 2017 SSL for arsenic is 7.07 mg/kg (residential). The current SSL for arsenic must be used for estimating risk, to avoid an overly conservative evaluation for arsenic. Revise the Report to include risk assessment evaluation based on the March 2017 Guidance.

17. Section 6.6.2.7, Risk Evaluation Approach, Step 1, lines17-22, page 6-11

Permittee Statement: "Metals with maximum concentrations greater than the site-specific background level were further evaluated by comparing the maximum detected concentration in the sample set to the maximum detected concentration in the background data set. Metals with maximum concentrations from the sample set that are at or below the maximum concentration from the background data set are not considered site-related and are eliminated from further evaluation."

NMED Comment: The comparison of site data to a background range is only applicable for arsenic. According to Section 2.7.3 of the 2015 NMED Guidance, if the maximum detected concentration is greater than the background reference value, a statistical evaluation is required to determine if the data are statistically different. Further, as noted in Section 2.8.3.3 of the 2017 NMED Guidance, a "simple comparison to a range of data or quartiles are not acceptable lines of evidence" to drop a constituent from the risk assessment. Remove the statement from the Report and revise the risk assessment tables and discussions accordingly.

18. Section 6.6.2.8.3, Initial Cumulative Risk Evaluation, lines 26-28, page 6-13

Permittee Statement: "The initial cumulative risk evaluation considered six metals, two pesticides (4,4'-DDE and 4,4'-DDT), three PCBs (Aroclors 1254, 1260, and 1268), five VOCs, and 14 PAHs."

NMED Comment: Five volatile organic compounds (VOCs) were retained as COPCs for the human health risk assessments. However, an evaluation of the vapor intrusion pathway has not been provided. Section 2.5.2 of the 2015 NMED Guidance (and Section 2.5.2 of the 2017 NMED Guidance) outlines the tiered approach for the evaluation of the vapor intrusion pathway. Since VOCs were detected, the vapor intrusion pathway is at least potentially complete and requires a qualitative discussion. If the pathway is complete according to the guidance, a quantitative assessment conducted in accordance with the methodology outlined in Section 2.5.2 of the 2017 NMED Guidance, is required. Revise the Report to address vapor intrusion.

19. Section 6.6.2.8.3, Initial Cumulative Risk Evaluation, Soil to Groundwater Pathway, lines 24-29, page 6-14

Permittee Statement: "The results of the initial cumulative risk evaluation for the soil to groundwater pathway are presented in Table 6-4C and indicate that the estimated total cancer risk of $1x10^{-4}$ is greater than the NMED target risk threshold of $1x10^{-5}$. PAHs contribute the majority of the risk with benzo(a)pyrene contributing the greatest percent of risk from PAHs. Further evaluation of potential cancer risks was warranted and a refined cumulative risk evaluation was conducted."

NMED Comment: For the soil-to-groundwater screening analyses, risks were calculated using constituent-specific concentrations in the subsurface and the generic soil-to-groundwater SSLs for a dilution attenuation factor DAF of 20 taken from the 2015 NMED Soil Screening Guidance. The generic soil-to-groundwater SSLs address the potential leaching of contaminants from the vadose zone to groundwater and incorporate chemical and physical properties of the constituents. The soil-to-groundwater SSLs are not truly risk-based numbers and as such, estimations of risk should not be conducted nor be included in cumulative risk/hazard estimates; therefore, comparison to target risk levels is not applicable to the soil-to-groundwater pathway. Rather than estimating risk, soil contaminant concentrations must be compared directly to the soil-to-groundwater screening levels to determine if the subsurface soil contamination has the potential to act as a source of contamination for groundwater. If the site concentration is greater than the appropriate soil-to-groundwater SSL, additional investigation is necessary to evaluate potential leaching and migration to groundwater in excess of NMED groundwater protection criteria. Refinements of the soil-to-groundwater pathway do not include evaluation on a target organ-specific basis; again, the soil-to-groundwater SSLs are not evaluated as risk-based numbers and comparison of risk by target organ is inappropriate. Section 4.3 of the 2017 NMED Guidance allows the use of the least conservative SSL for the initial SSL evaluation (this may be based on a water quality parameter, a contaminant limit or drinking water standard). Revise all text and associated tables in the Report, removing all estimates of risk/hazard for the soil-to-groundwater pathway. In addition, revise the discussion of the soil-to-groundwater screening in terms of point comparisons and the identification of constituents that exceed the corresponding SSLs. Where soil-to-groundwater SSLs are exceeded, additional evaluation following Section 4.3 of the 2017 NMED Guidance is required.

20. Table 6-3, Metals Background Evaluation, page 1 of 1

NMED Comment: Barium was detected above the background reference value. As such, it should have been retained as a COPC. The only metal where comparison to a range of background is acceptable is arsenic. Revise the table (and the risk in Table 6-4A) to include barium as a COPC in the revised Report. It is noted that inclusion of barium will not significantly change the estimated hazard index.

21. Table 6-5A, Cumulative Risk/Hazards Calculations for Detected Analytes, page 1 of 1

NMED Comment: The total cancer risk (1.3E-05) when using the refined exposure point concentrations (95% upper confidence level of the mean) slightly exceeds the target risk level of 1E-05. The primary driver is polycyclic aromatic hydrocarbons (PAHs). Note that PAH risks are based on outdated toxicity. The three PAHs with the highest level of contribution to total risk are benzo(a)pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene. Based on the 2015 SSLs, the risk resulting from these three PAHs is 1.11E-05. However, if the 2017 SSLs are applied, the cumulative risk due to these three PAHs drops to 6.8E-06. It is likely that use of the 2017 NMED SSLs will show acceptable cancer risk for the residential receptor at SWMU 20. Reevaluate the cancer risk using the 2017 NMED SSLs in the revised Report.

The Permittee must submit a revised Report that addresses all comments contained in this Disapproval. In addition, the Permittee must include a response letter that cross-references where NMED's numbered comments were addressed. The Permittee must also submit an electronic redline-strikeout version of the revised Report showing all changes that have been made. The revised Report must be submitted no later than **January 31, 2019**. The revised Report must include a schedule for submittal of a phase 2 interim measures work plan as directed in the comments.

Should you have any questions, please contact Michiya Suzuki of my staff at (505) 476-6059.

Sincerely,

John E. Kieling
Chief
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB
B. Wear, NMED HWB
M. Suzuki, NMED HWB
C. Hendrickson, U.S. EPA Region 6
L. Rodgers, Navajo Nation
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File: FWDA 2018 and Reading, Parcel 6, FWDA-16-011

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CERTIFIED MAIL – RETURN RECEIPT REQUESTED

June 4, 2019

Mark Patterson
BRAC Environmental Coordinator
Fort Wingate Depot Activity
13497 Elton Road
North Lima, OH 44452

Steve Smith
USACE
CESWF-PER-DD
819 Taylor Street, Room 3B06
Fort Worth, TX 76102

RE: DISAPPROVAL
FINAL RCRA FACILITY INVESTIGATION REPORT
PARCEL 6, REVISION 1.0
FORT WINGATE DEPOT ACTIVITY
MCKINLEY COUNTY, NEW MEXICO
EPA ID# NM6213820974
HWB-FWDA-12-008

Dear Messrs. Patterson and Smith:

The New Mexico Environment Department (NMED) is in receipt of the Fort Wingate Depot Activity (Permittee) *Final RCRA Facility Investigation Report Parcel 6 Revision 1.0* (Report), dated March 29, 2019. NMED has reviewed the Report and hereby issues this Disapproval. The Permittee must address the following comments.

GENERAL COMMENTS

1. Overarching Issues with the Report

NMED Comment: The Permittee has again provided a document that appears not to have been reviewed for quality, accuracy, or completeness prior to submittal. The Permittee has repeatedly been directed to ensure that the documents they submit are accurate and complete. The Permittee is required to submit a redline-strikeout version of the Report that shows where all changes have been made. The redline-strikeout version provided by the Permittee

does not show all changes that were made to the Report. The Permittee is also required to provide a response-to-comment table (RTCs) indicating where changes were made to the Report based on NMED's previous comments. Every page number/line reference in the table that the Permittee provided is inaccurate. Review time for this document was significantly increased by both issues because the reviewer was forced to re-review the entire document versus being able to review just where changes were made based on the redline-strikeout version and the response-to-comment table. In addition, the Report is missing figures and tables referenced in the text and contains multiple inaccuracies. The Report also contains many other issues that have previously been commented on by NMED, including the inclusion of inappropriate appendices, the inclusion of other reports in appendices, and inappropriate appendix designations within an appendix. The Permittee's submittal of inaccurate documents constitutes noncompliance [see 40 CFR 270.11(d)(1)]. All documents submitted by the Permittee to the NMED subsequent to receipt of this letter shall include the certification included in 40 CFR 270.11(d)(1) in its entirety and without any modification above the signature line(s) on each document.

2. Electronic Media Provided

NMED Comment: The Permittee provided three media discs with the formal submittal of the Report. Each disc is labeled "Disk 1 of 1". This is misleading. Each disc should have been labeled "Disk 1 of 3", "Disk 2 of 3" or "Disk 3 of 3" for continuity and organization. In addition, one of the discs contained the revised Report and four of the Appendices, one disc contained only the same four Appendices included with the first disc, and the third disk contained only the inaccurate redline-strikeout version of the Report. It is redundant and unnecessary to include the same appendices on more than one disc. Again, this illustrates a lack of review for quality, accuracy, and completeness. For all future submittals, ensure that labels on media are accurate and that the submitted media contains the appropriate information.

3. Incremental Sampling Methodology

NMED Comment: As stated in comments issued by the NMED to the Permittee spanning more than a decade, Incremental Sampling Methodology or Multi-Incremental (ISM or MI) samples in this application are only appropriate for screening-level decisions. NMED's September 5, 2007 *Notice of Disapproval Parcel 21 RCRA Facility Investigation Work Plan and Release Assessment Report for Parcel 21* states:

> The Permittee proposes to perform multi-incremental (MI) sampling at various SWMUs and AOCs. NMED views multi-incremental sampling for the applications proposed in this Work Plan as a screening tool only. If contamination is identified in soils using MI procedures, the Permittee may be required to conduct additional sampling at selected sites.

NMED's December 12, 2008 *Approval with Modification RCRA Facility Investigation Work Plan Parcel 21* states:

> NMED considers MI sampling to be acceptable as a screening tool in some situations but is appropriate for compliance only for surface releases with detonations as the contaminant release source and then only for explosive compounds and some metals.

The Permittee's repeated attempts to use the ISM sampling data for compliance purposes rather than screening purposes make it appear that the Permittees do not understand the function of a screening tool. Therefore, in NMED's February 2, 2018 *Disapproval Final RCRA Facility Investigation Work Plan Parcel 2 Revision 1,* the Permittee was provided with the following comment:

> The reported constituent concentrations for incremental samples must be multiplied by the number of subsamples in each decision unit for comparison to screening levels. If any exceedances are found during the screening process, the Permittee is also required to conduct additional soil sampling by further dividing the sampling grid in the decision unit to identify whether there is a local area of contamination. This comment applies to all AOCs and SWMUs where a multi-incremental soil sampling approach is utilized.

While three examples of previous comments are provided above, a limited review has identified at least 16 different documents containing similar comments. In this Report, the Permittee has again ignored NMED direction and attempted to utilize ISM sample results for compliance purposes. This is not acceptable. Failure to follow NMED direction constitutes noncompliance and may result in an enforcement action.

The NMED does not accept the inappropriate use of the incremental sampling method. NMED will only accept multi-incremental or ISM samples for explosives and metals in large-area surface releases with detonation or airborne distribution as the contaminant release source. The Permittee must review all planned work and revise any plans that propose ISM sampling to propose an alternate sampling approach. NMED hereby rescinds approval of all proposed ISM or MI sampling that was previously approved, but has not yet been conducted at the Facility.

4. Electronic Version of the Response-to-Comment Table

NMED Comment: Although an electronic version of the response to comments (RTCs) was submitted to the NMED as an email attachment, it was not included in the formal submittal. The RTCs must be included as a part of the formal submittal so that it is available for review in the Administrative Record. The Permittee has repeatedly been directed to include the RTCs in their formal submittals. NMED's March 8, 2018 *Disapproval Final RCRA Facility*

Investigation Work Plan Parcel 9 Revision 1 (March 8, 2018 Disapproval) states:

> The Permittee did not provide an electronic version of their response to NMED's Disapproval comments on the included CD. **For all future revised document submittals**, provide an electronic version of the Permittee's response to comments with the electronic version of the submittal. [emphasis added]

For all future submittals, the Permittee must include the RTCs in the electronic version on the CDs. Failure to follow NMED direction constitutes noncompliance and may result in an enforcement action.

5. Redline-Strikeout Version of the Report

NMED Comment: There are section numbers in the final and redline-strikeout (RLSO) versions of the Report that are not consistent. For example, Section 4.3.1, Soil Investigation, in the final version is numbered as Section 4.2.4 in the RLSO version. Correct the errors in the RLSO version to be consistent with the final version of the Report. In addition, all revisions were not identified in the RLSO version, as required. For example, Section 6.3.1 of the final version uses the terminology "ISM samples"; however, the same section of the RLSO version uses different terminology "Multi-Incremental". The difference is not identified in the RLSO version. The RLSO version must identify all revisions made to the previous version of the Report. Failure to provide in accurate RLSO version slows review by creating the potential for changes to be overlooked. The inability to identify changes to a document can be misleading and implies, at best, poor quality control and, at worst, a deliberately misleading submittal on the part of the Permittee. Comment 2 of NMED's October 29, 2018 *Disapproval Final RCRA Facility Investigation Report Parcel 7 Revision 1* (October 29, 2018 Disapproval) states:

> The Report was revised extensively; however, all revisions were not identified in the RLSO version. For example, although many new sections, tables and figures were added to the revised Report, these changes were not identified in the RLSO version. Similarly, new acronyms and abbreviations were added to the List of Acronyms and Abbreviations; however, most of the new acronyms and abbreviations were not identified in the RLSO version. The RLSO version must identify all revisions made to the previous version of the Report. Failure to provide an accurate RLSO version slows review, creates the potential for changes to be overlooked, and the inability to identify changes to a document can be misleading.

The Permittee must provide accurate and complete RLSO versions that show where all changes were made for all revisions of documents. Failure to follow NMED direction constitutes noncompliance and may result in an enforcement action. For future submittals,

failure to provide an accurate RLSO version may result in a second fee assessment based on a rejection due to the need for NMED to review the entire document as if it were a new submittal.

6. Response-to-Comment Table

NMED Comment: The RTCs provide references for the lines and pages where changes were made to the Report based on each response. However, none of the references are accurate.

The Permittee has repeatedly been directed to ensure accuracy in the documents they submit to NMED and have not followed that direction. For example, NMED's October 29, 2018 Disapproval states:

> Not all revised sections, tables, and/or figures are referenced in the RTC letter. The RTC letter must identify all revised parts of the Report required by the NMED comments. Ensure that the RTC letter is accurate and complete for all future submittals.

Failure to follow NMED direction constitutes noncompliance and may result in an enforcement action. The Permittee must provide an accurate RTC table for this Disapproval that also includes the changes made for the current version based on the comments provided by NMED in the November 7, 2018 *Disapproval Final Permittee-Initiated Interim Measures Report Parcel 6, Revision 1* (November 7, 2018 Disapproval).

7. Appendices

NMED Comment: The Permittee has frequently received comments on the contents of appendices. For example, NMED's March 9, 2016 *Disapproval Final RCRA Facility Investigation Work Plan Parcel 20* states [original comment and table reduced to issues included in this Report]:

> The Permittee has provided a document that is difficult to review. The Work Plan includes appendices that are not needed or required. Inclusion of these appendices requires NMED to review and provide comments on each of them, thereby significantly slowing the review process. Removal of these types of appendices will allow NMED to provide more rapid review of documents. The extraneous appendices and suggestions include:

Appendix and Title	Suggestion
Appendix D: Uniform Federal Policy for Quality Assurance Project Plan/SOPs – not project specific	QAPPs are not typically project specific. Detailed methods and procedures to be used at Parcel 20 must be provided in the "Investigation Methods" section of the text.

Also, many of the appendices contain internal appendices that are labeled similarly to the Plan appendices. For instance, Appendix A contains an Appendix A, Appendix B, and Appendix C. This is confusing for the reviewer, as well as for cross-referencing comments. Revise the Plan to provide a logical naming system for appendices within the Plan appendices, e.g., Appendix A.1, Appendix A.2, etc.

NMED's November 1, 2016 *Disapproval Final Interim Measures Work Plan Parcel 21 – Solid Waste Management Unit 1 – TNT Leaching Beds* states:

NMED did not review and does not provide approval for:

- Appendix C, Landfill Disposal Management Plan/Documentation
- Final Installation Spill Contingency Plan included in Appendix D
- Appendix E, NRCS Soil Survey of McKinley County, New Mexico
- Appendix G, Programmatic Agreement
- Appendix H, Asphalt Road Construction Specifications
- Appendix I, Laboratory Quality Control Limits

Previous NMED comments on other documents have requested that the Permittee not include full documents or reports as appendices. These documents or reports must be referenced in the Work Plan, but should be submitted to NMED separately as reference documents. In addition, adding full documents, such as the Spill Contingency Plan into an appendix titled, "Field Analysis Work Plan" is confusing. All appendices must have all pages properly numbered for review. Revise the Work Plan to correct these issues.

Three of the appendices listed in the previous comment above were included in the current Report (Appendices B, C and F). NMED's March 8, 2018 Disapproval states:

NMED did not review and does not provide approval for:

- Appendix A, Summary Report of Historical Information
- Appendix B, Cultural Resources Programmatic Agreement
- Appendix C, NRCS Soil Descriptions for Fort Wingate
- Appendix D, Quality Assurance Project Plan

NMED has repeatedly requested that the Permittee not include full documents or reports as appendices.

Three of the four appendices listed in NMED's previous comment were included in this Report (Appendices B, C and M). Failure to follow NMED direction constitutes noncompliance and may result in an enforcement action. Remove extraneous appendices from the revised Report.

8. Quality Control

NMED Comment: The Permittee provided a Quality Control Summary Report in Appendix F. The report does not identify any samples that were reviewed or qualified. The report must identify all samples that were reviewed, all samples that failed any criteria, and all samples that were qualified based on failed quality criteria.

In addition, a Data Quality Evaluation Report is located in Appendix M behind the Quality Assurance Project Plan (QAPP). Section 3.5 of this report states, "[t]he samples were submitted in a manner that the duplicate association was "blind" to the laboratory." This is not accurate, as every duplicate sample listed in the report include "-DUP" in its sample ID. Reviewed samples are identified in this data quality report, but while field duplicate precision failed to meet criteria in a field duplicate pair, the only samples that were qualified were the pair. Provide justification for not qualifying all samples associated with the failed field duplicate precision pair. While all of these issues are problematic, this Data Quality Report appears to be specific to samples collected prior to the 2011 investigation. Remove the Data Quality Report in Appendix M along with the QAPP.

The Permittee has previously been directed to ensure that quality assurance/quality control procedures and standard practices are followed. NMED's November 19, 2018 *Disapproval Final Permittee-Initiated Interim Measures Report Parcel 24 – Igloo Block A* states:

> The Work Plan also specifically states,
>
> > "The identity of field duplicate samples will not be provided to the analysts or laboratory personnel. A log will be kept identifying each field duplicate sample to its parent sample. This procedure ensures that the laboratory will not know which duplicate sample matches the field sample. A table will be provided in the IM report that designates the field duplicate sample to the associated field sample."
>
> This procedure was also not followed, as the four duplicate samples were all submitted with "DUP" in the sample identifier. Provide an explanation as to why the cited work plan was not followed.
>
> In addition, one of the four field duplicates resulted in concentrations of lead and mercury that were 3 to 5 times the

concentrations found in the original sample. According to the Work Plan referenced in Appendix C, the RPD goal for duplicate samples is ≤20%. Half of the duplicate samples exceed the 20% goal, yet no samples were qualified. The cited work plan specifically states,

> "Field duplicates will be evaluated by %RPD or, at low levels (i.e., when one or both results are less than 5 x Limits of Quantitation [LOQ]), the absolute difference in results (/S-D/). The specific numeric criteria for field duplicates for this project are as follows:
>
> - When one or both results are less than 5 x LOQ, the extent of variability will be considered acceptable if, for soil samples, /S-D/ is less than the magnitude of LOQ x 2 and, for water samples, /S-D/ is less than the magnitude of the LOQ.
> - When both results are greater than 5 x LOQ, the extent of variability will be considered acceptable if, for soil samples, %RPD is less than 50% and, for water samples, %RPD is less than 35%."

General QA/QC standards would require all data above the target 20% RPD to be qualified with a J flag for estimated value and all data that exceeds 50% RPD to be rejected and qualified with a R flag. The Permittee provides no discussion of this issue in the Report text. The Permittee must provide a discussion of the issue and justification (other than professional judgement) for not qualifying and/or rejecting all data based on the duplicate sample results with half of the duplicates exceeding the RPD range for acceptability.

Failure to follow NMED direction constitutes noncompliance and may result in an enforcement action. Remove all inaccurate statements from the Report. Remove the Data Quality Report from Appendix M along with the QAPP. In addition, qualify all samples associated with failed field duplicate precision and provide a table indicating which samples were qualified.

9. Extraneous Data

NMED Comment: The Permittee included multiple tables including tables presenting data collected prior to the effective date of the FWDA RCRA Permit. This data was previously presented in the March 30, 2011 *Final – NMED Revised RCRA Facility Investigation Work Plan Parcel 6* (Work Plan) and was used qualitatively to direct the 2011 investigation, but

the data cannot be relied on for any decision-making purposes. The qualitative data is compared in the tables to NMED's 2006 soil screening levels (SSLs). This is not appropriate. Remove all data from the revised Report that was collected prior to the March 30, 2011 NMED-approved Work Plan. In addition, remove all maps depicting sample locations for any data collected prior to the March 30, 2011 NMED-approved Work Plan.

10. Field Method Descriptions

NMED Comment: The Permittee has repeatedly been directed to provide descriptions of activities conducted in the field in the text of the Report. References to work plans or standard operating procedures are not sufficient. For example, Section 3.3 states that soil samples were collected, but there is no indication of how the soil samples were collected. There is no indication of what type of drilling was used to gain access to a sample collection point. NMED's November 19, 2018 Disapproval states,

> Soil sampling procedures were not described in the Report. All methods used in the field must be described in the Report. Provide details of the soil sampling procedures, including duplicate sample collection, in the revised Report.

Provide descriptions of all methods utilized in the field in the text of the revised Report. Failure to follow NMED direction constitutes noncompliance and may result in an enforcement action.

SPECIFIC COMMENTS

11. Response to NMED's Disapproval Comment 1

Permittee Statement: "Nonetheless, the Army has provided a lines-of-evidence discussion on potential soil to groundwater impact at relevant P6 SWMUs and AOCs."

NMED Comment: Although the Permittee states that a line-of-evidence discussion is provided, the relevant SWMUs and AOCs where the discussion was added are not stated in the RTC table. The RTC table must identify the sections, tables, and figures where changes were made to the Report to reflect the response. Revise the RTC table accordingly. In addition, if the lines-of-evidence discussion is not provided for a particular site (e.g., SWMU 20), explain why the discussion is not provided in the response letter.

12. Response to NMED's Disapproval Comment 1

Permittee Statement: "The field work associated with this RFI report was completed in 2011, and the RFI report was submitted to NMED in 2012. Therefore, Army utilized NMED Risk Guidance 2009 which was the most current guidance available at the time field work was completed."

NMED Comment: The statement is not accurate. Data provided in the Parcel 6 database indicates samples were collected in 2012, and investigation work has continued at Parcel 6 through at least 2018 via interim measures; therefore, field work has not been completed and risk assessment is premature. Following completion of all field work at Parcel 6, conduct a risk assessment using the NMED Risk Assessment Guidance that is in effect at the time of completion.

In addition, while the Permittee states that they utilized NMED's 2009 Risk Guidance, the residential SSLs provided in their tables do not match the 2009 SSLs. For example, Table 4-4 lists the residential SSL for benzo(a)pyrene as 621 µg/kg. NMED's 2009 residential SSL for benzo(a)pyrene was 481 µg/kg. The residential SSL utilized for perchlorate in Table 4-9 is three orders of magnitude higher than NMED's 2009 SSL. This indicates a lack of document quality control. Revise the Report to remove all risk assessment and all inaccurate statements.

13. Response to NMED's Disapproval Comment 2

Permittee Statements: "Army has updated the text accordingly and included a reference to the 2013 Arsenic Background Letter, as well as a discussion on the rationale why the site is not a potential source of arsenic."
and,
"The Army has not included this recent arsenic revision (2017) into this revised P6 RFI Report Rev 1.0 document for the following reasoning:
1. Army relied on NMED's comments in this NOD to revise the document as appropriate which requests Army to include the 2013 Arsenic Background Memo [first argument],
2. The field work was completed in 2011 and Army utilized the NMED Risk Guidance, 2009, which predates the 2017 arsenic SSL revision [second argument]."

NMED Comment: See Comment 12. Remove all risk assessment from the revised Report as it is premature. Following completion of all field work at Parcel 6, risk assessment must be conducted using the NMED Risk Assessment Guidance that is in effect at the time of completion.

14. Executive Summary, ES.3, Investigation Findings, SWMU 4 Building 600 (Former Building 539), lines 16-17, page ES-2

Permittee Statement: "SVOCs (EPA Method 8270C); and explosives (EPA Method 8330B) were not detected in any of the soil samples from SWMU 4."

NMED Comment: According to Table 3-1, *Summary of Reportable Concentrations for Soil Analyses Completed at SWMU 4, Building 600,* several SVOCs were detected at SWMU 4. The constituents were detected during the previous investigation. Revise the statement for accuracy.

15. Executive Summary, ES.4, Conclusions and Recommendations, SWMU 8 Building 537, lines 31-33, page ES-6

Permittee Statement: "Additional soil sampling for PCBs and PAHs following soil excavation per the NMED approved Final Permittee-Initiated Interim Measure Work Plan Parcel 6 Revision 1.0 (IMWP), dated May 4, 2015 is required."

NMED Comment: Comment 11 in the November 7, 2018 Disapproval states, "[p]ropose to submit a phase 2 interim measures work plan to evaluate for the presence of [asbestos containing material] (ACM) in SWMU 8. This requirement was not included in the Report. Include the requirement in the revised Report.

16. Executive Summary, ES.4, Conclusions and Recommendations, AOC 28, Igloo Block B, lines 13-15, page ES-7

Permittee Statement: "Removal of lead exceedances will be completed per the NMED approved Final Permittee-Initiated Interim Measure Work Plan Parcel 6 Revision 1.0 (IMWP), dated May 4, 2015."

NMED Comment: Comment 8 in the November 7, 2018 Disapproval states, "propose to submit a Phase 2 interim measures work plan that proposes to further subdivide the decision units for collection of MI samples or collect discrete samples where further characterization is warranted [for the investigation of AOC 28]. This requirement was not addressed in the Report. Failure to follow NMED direction constitutes noncompliance and may result in an enforcement action. Include the requirement in the revised Report.

17. Section 2.5, Current Investigation, line 36, page 2-9 and line 1, page 2-10

Permittee Statement: "Copies of original laboratory reports are included in Appendix E."

NMED Comment: Thirty-seven analytical laboratory level IV reports are included in Appendix E, *Analytical Lab Reports,* totaling approximately 50,000 pages. The Permittee has previously been directed to not submit level IV analytical laboratory reports. NMED's November 7, 2018 Disapproval states:

> The Report includes Level IV reports from the analytical laboratories. This has resulted in over 18,000 pages of laboratory reports for this Report. These reports are unneeded and cumbersome. NMED requests that only Level II analytical laboratory reports be included in all submittals. Revise the Report by removing Level IV analytical reports and including Level II analytical reports.

Remove Level IV analytical reports from the revised Report and replace them with the Level II analytical reports.

18. Section 3.2.2, Sampling Data, lines 25-27, page 3-4

Permittee Statement: "Detected concentrations of explosives are presented in Table 3-2. All concentrations were estimated values less than 1 microgram per liter (µg/L)."

NMED Comment: Table 3-2, *Summary of Reportable Explosive Concentrations in Groundwater,* page 3-15, indicates that the reported concentrations are in milligrams per liter (mg/L). Resolve the discrepancy in the revised Report.

19. Section 3.2.2, Sampling Data, lines 32-34, page 3-4

Permittee Statement: "Nitrate and nitrite were also detected in two wells, TMW 11 and TMW 15, although concentrations were substantially below the New Mexico WQCC standards and EPA MCLs."

NMED Comment: According to Table 3-2, the nitrate concentrations in groundwater samples collected from these wells ranged from 690 mg/L to 1,800 mg/L. Resolve the discrepancy in the revised Report.

20. Section 3.5.2, Conclusions and Recommendations, lines 17-19, page 3-10

Permittee Statement: "In addition, SWMU 4 did not have any historical uses which may attribute to the site being a source of arsenic contamination, especially since explosives were not detected in SWMU 4 soils."

NMED Comment: Discuss the correlation between explosive compounds and arsenic detections in the revised Report.

21. Section 3.5.2, Conclusions and Recommendations, lines 25-27, page 3-10

Permittee Statement: "Remedial investigation performed to date, as discussed in Section 3.2.2, indicates that none of the target constituents were detected in the subsurface soil samples."

NMED Comment: Section 3.2.2 states that low concentrations of several VOCs and SVOCs were detected in some samples. Revise the statement for clarity.

22. Section 3.5.2, Conclusions and recommendations, lines 6-8, page 3-11

Permittee Statement: "Based upon these sampling results and the operational history of SWMU 4, the data does not indicate that groundwater has been directly impacted in any way that is attributable to SWMU 4."

NMED Comment: The fluoride concentrations in the groundwater samples collected from the relevant wells (e.g., TMW11 and TMW17) exceeded the applicable screening level

according to Table 3-2. However, the discussion regarding the exceedance is not included in the section. Include a discussion regarding the detections and exceedances of fluoride concentrations in groundwater samples collected from the wells. Revise the Report accordingly.

23. Section 4.1.4, Waste Characteristics and Contaminants of Potential Concern, lines 9-10, page 4-3 and Section 4.3, Current Investigation (2011), lines 11-12, page 4-7

Permittee Statement: "The COPCs for SWMU 8 are RCRA metals, VOCs, SVOCs, pesticides, and PCB."

NMED Comment: Forklift hydraulic oil that contained PCBs may have been released to the environment at SWMU 8. The Permittee included total petroleum hydrocarbon oil range organics (TPH-ORO) analysis in the analytical suite for the soil samples collected from the site. However, TPH-ORO was not included as a COPC. Include TPH-ORO as a COPC in the revised Report.

24. Section 4.2.2, Sampling Data, Environmental Baseline Survey for the Transfer of Lands at Fort Wingate Depot Activity, New Mexico, USACE 2000, lines 19-20, page 4-5

Permittee Statement: "Friable ACM was abated in 1999 and lead-based paint (LBP) was assumed."

NMED Comment: The statement does not make sense. Provide a clarification in the revised Report.

25. Section 4.3, Current Investigation (2011), lines 32-33, page 4-7, and Section 4.3.1, Soil Investigation, lines 2-3, page 4-8

Permittee Statement: "As directed by the RFI Work Plan for Parcel 6 (CH2M Hill, 2011), and as shown in Figure 4-6, 13 borings were advanced in the areas surrounding Building 537."

NMED Comment: According to Figure 4-6, *Soil Sample Locations, SWMU 8,* there are 15 boring locations in the vicinity of Building 537. Correct the statement in the revised Report or provide a clarification for the discrepancy.

26. Section 4.3.1, Soil Investigation, lines 4-17, page 4-8

NMED Comment: Surface soil samples at a depth below 0-1-foot ground surface were not collected from borings 0608-SB14 and 0608-SB15. Since both PCBs and pesticides likely remain in the shallow soils, surface soil samples should have been collected. Since further investigation is warranted at SWMU 8, include a proposal to collect surface soil samples at the boring locations in the phase 2 investigation work plan.

27. Section 4.4, Evaluation of Data from Current Investigation (2011), lines 5-7, page 4-9

Permittee Statement: "As summarized in Table 4-8, RCRA total metals (EPA methods 6010B/7471A) were not detected in concentrations exceeding the screening criteria with the exception of arsenic at four soil borings (Figure 4-4) around Building 537."

NMED Comment: Figure 4-4 depicts the area where PCB contaminated soils remain. It does not depict the area where arsenic exceedances are detected. Reference an appropriate figure in the revised Report.

28. Section 4.5.2, Conclusions and Recommendations, lines 8-10, page 4-11

Permittee Statement: "Additional soil sampling for PCBs and PAHs following soil excavation per the NMED approved Final Permittee-Initiated Interim Measure Work Plan Parcel 6 Revision 1.0 (IMWP), dated May 4, 2015 is required."

NMED Comment: Comment 7 in NMED's November 7, 2018 Disapproval must also be addressed in the revised Report.

29. Section 5.2.1, Nonsampling Data, lines 18-20, page 5-3

Permittee Statement: "The location of the cesspool, the arroyo outfall, and the septic tank that had served Building 542 were all verified, and the structures were still intact."

NMED Comment: The locations of the cesspool and the septic tank are shown on Figure 5-3, *Soil and Sediment Sample Locations.* However, the location of the arroyo outfall is not shown on the figure. Indicate the location of the arroyo outfall in the figure. Also, indicate the depth of arroyo outfall in the figure. The outfall location presumably coincides with the sampling location 0611-SB12. In this case, clarify whether the soil samples were collected from a depth below the outfall in the revised Report.

30. Section 5.2.2.1, Soil Data, lines 33-37, page 5-3

Permittee Statement: "Four wipe samples were collected from stained or discolored areas on the east loading dock and were analyzed for explosives. One explosive, HMX, was detected in one sample. Four surface soil samples were collected adjacent to the stained areas observed on the east loading dock and were tested for TNT and RDX using immunoassay test kits."

NMED Comment: HMX was detected on the loading dock. Subsequently, the Permittee collected soil samples adjacent to the loading dock and tested them for TNT and RDX. Explain why the samples were not analyzed for HMX and provide a justification in the revised Report. This comment also applies to the text lines 11-15, page 5-4. Propose to collect soil samples adjacent to the loading dock to be analyzed for HMX in the phase 2 investigation work plan.

31. Section 5.2.2.1, Soil Data, lines 38-41, page 5-3

Permittee Statement: "To further investigate this area, a single soil boring was advanced adjacent to the east loading dock to a depth of 10 feet using hollow stem auger (HSA) drilling. Samples were collected from 3 to 5 feet bgs and 10 to 12 feet bgs."

NMED Comment: The statement indicates that soil samples were collected from a depth greater than the total depth of the boring. Explain the sampling method in the revised Report.

32. Section 5.2.2.1, Soil Data, lines 42-43, page 5-3

Permittee Statement: "Two explosives, HMX and RDX, were detected at low concentrations in the soil samples [collected from the boring]."

NMED Comment: According to Table 5-1, *Summary of Reportable Concentrations for Soil Analyses Completed at SWMU 11, Buildings 541 and 542,* the detection of VOCs, SVOCs and metals is recorded; however, the detection of the explosive compounds is not recorded. Resolve the discrepancy in the revised Report.

33. Section 5.2.2.1, Soil Data, lines 16-17, page 5-4

Permittee Statement: "To investigate the building's cesspool, four soil borings were advanced adjacent to the cesspool with HSA drilling."

NMED Comment: Five sampling locations adjacent to the cesspool are shown in Figure 5-3. Provide an explanation or resolve the discrepancy in the revised Report.

34. Section 5.2.2.1, Soil Data, lines 17-22, page 5-4

Permittee Statement: "The borings were advanced to a depth of 20 feet bgs, which was three feet below what was indicated to be the bottom of the cesspool based on original drawings. During the site reconnaissance, the cesspool was measured to be roughly 7 feet deep. Soil samples from each boring were collected from 4 to 6 feet bgs and 18 to 20 feet bgs and were analyzed for explosives, TAL metals, TCL VOCs, and TCL SVOCs."

NMED Comment: The depth of the cesspool was 7 feet bgs rather than 17 feet bgs. The soil samples were collected above the bottom depth of the cesspool; however, they should have been collected at the depths one to two feet below the bottom of the cesspool (8 – 9 feet bgs). Soil samples must be collected from the depths where contamination is most likely to be detected in future investigations. Provide an explanation for why the sample collection depths were not modified based on the site reconnaissance in the revised Report.

35. Section 5.2.2.1, Soil Data, lines 17-18, page 5-5

Permittee Statement: "The water and sediments in the septic tank were removed by vacuum truck and the septic tank was abandoned in place as part of the Phase 1 RFI activities."

NMED Comment: According to Figure 5-4, *Monitoring Well Locations SWMU 11, Building 542,* the sanitary sewer line connected to the septic tank extends far beyond SWMU 11. Explain whether the same sewer line is still connected to any active structures outside of the SWMU or if it is completely disconnected or plugged. Discuss whether there is a possibility of wastewater entering SWMU 11 from other sites in the revised Report.

36. Section 5.3.1, Soil Investigation, lines 21-24, page 5-9

Permittee Statement: "The soil boring was advanced to the water table, with samples collected at 5, 10, and 20 feet bgs and at the bottom of the borehole (37.9 to 38.9 ft. bgs) since the water table was not encountered prior to drilling refusal (Figure 5-5)."

NMED Comment: The statement does not make sense. Correct the statement in the revised Report.

37. Section 5.3.1, Soil Investigation, lines 21-24, page 5-9

Permittee Statement: "One soil boring was advanced near the center of the septic tank drain field."

NMED Comment: Provide a designation for the referenced soil boring for clarification in the revised Report.

38. Section 5.4.1, Soil Characterization, lines 27-29, page 5-10

Permittee Statement: "Two soil samples from soil boring 6 (SB06) were in exceedance of the 3.90 mg/kg screening criteria for arsenic; one from the 0-1 ft bgs depth interval (6.8 mg/kg) and one from the 9-10 ft bgs depth interval (6.1 mg/kg)."

NMED Comment: According to Figure 5-6, *TAL Metals-Arsenic Screening Criteria Exceedances, SWMU 11*, and Table 5-8, *Parcel 6 SWMU 11, Method 6010B/7471A Metals Soil Investigation Detected Constituents,* the arsenic concentration in the soil sample collected from the depth of 9-10 feet bgs is recorded as 8.7 mg/kg. Resolve the discrepancy in the revised Report.

39. Section 5.4.2, Soil-to-Groundwater Pathway, page 5-11

NMED Comment: The Permittee provides a list of lines-of-evidence that demonstrates the soil-to-groundwater pathway is incomplete. In the list, the item numbers 2 and 3 are missing. Provide the missing lines-of-evidence in the revised Report.

40. Section 5.4.2, Soil-to-Groundwater Pathway, lines 8-12, page 5-12

Permittee Statement: "Site conditions of low average precipitation and high evaporation rates in addition to the depth to groundwater being 50 to 70 bgs further supports that analytes reaching groundwater is extremely unlikely."

NMED Comment: It should be noted that various analytes have already reached to the depth of groundwater at other sites. Therefore, the statement cannot be used as a reason why further evaluation of the soil-to-groundwater pathway is unnecessary. Remove the statement from the Report.

41. Section 6.1.1, Location, Description, and Operational History, lines 4-7, page 6-1

Permittee Statement: "The Western Landfill Area is a former burial site located approximately 0.5 mile west of the Administrative Area, southwest of the Sewage Treatment Plant and directly west of Building 23 as shown in Figures 6-1 and 6-2."

NMED Comment: Neither figure indicates the location of the Administration Area, Sewage Treatment Plant or Building 23. Identify these locations in the revised figures.

42. Section 6.2.2, Sampling Data, Final Remedial Investigation/Feasibility Study & RCRA Corrective Action Program Document; ERM Program Management Company, 1997, lines 8-10, page 6-4

Permittee Statement: "The extent of contamination was believed to be limited to the visible waste and associated matrix and not to have impacted the native soil below the landfill."

NMED Comment: Provide an example to demonstrate the basis of the statement in the revised Report. For instance, the Permittee states that area DA3 was the only disturbed area found to contain significant amounts of waste. The analytical results of confirmation soil samples collected from area DA3 during the investigation must be referenced and discussed.

43. Section 6.2.2, Sampling Data, Final Report on Airborne Geophysical Survey; Battelle, 2009, lines, page 6-5

Permittee Statement: "The results of the airborne geophysical survey for SWMU 20 are shown in Figure 6-5."

NMED Comment: The Section of the Report does not discuss any findings from the geophysical survey. Figure 6-5, *Airborne Geophysical Survey,* page 6-40, was referenced in the section; however, no explanation is provided how to interpret the figure. Include the discussion and explanation in the revised Report.

44. Section 6.3.1, Soil Investigation, lines 23-24, 26-27, and 33-36, page 6-6

Permittee Statements: "An ISM surface soil sample was collected and analyzed for explosives (EPA Method 8330B)."
and,
"One soil boring was advanced to 5 ft. bgs with discrete soil samples collected at the 0 to 1 ft. bgs and 4- to 5 ft. bgs intervals (Figure 6-6)."
and,
"All samples were analyzed for; VOCs (EPA Method 8260B); SVOCs (EPA Method 8270C); RCRA metals (EPA Method 6010B and Method 7471A); pesticides (EPA Method 8081A); and chlorinated herbicides (EPA Method 8151); and explosives (EPA Method 8330B)."

NMED Comment: Table 6-4 indicates that the ISM samples were analyzed for metals as well. Provide information regarding all analyses conducted for the ISM samples. In addition, the last statement indicates that the ISM samples were analyzed for VOCs and SVOCs. Clarify whether the ISM samples were analyzed for VOCs and SVOCs. Section 6.3.1 generally lacks clarity; revise the Report for clarity.

45. Section 6.5, Conclusions and Recommendations, lines 16-19, page 6-7

Permittee Statement: "As demonstrated in the attached Tables 6-3 through 6-5, none of the constituents at SWMU 20 exceeded soil screening criteria under the 2011 investigation. The Army recommends no further characterization at SWMU 20, except for within Feature 4."

NMED Comment: Table 6-4 indicates that the ISM samples were analyzed for metals. Comment 10 in the NMED *Disapproval Final RCRA Facility Investigation Work Plan, Parcel 2, Revision 1*, dated February 6, 2018, states, "[t]he reported constituent concentrations for incremental samples must be multiplied by the number of subsamples in each decision unit to evaluate for the presence of hot spots. If any exceedances are found during the screening process, the Permittee is required to conduct additional soil sampling by further dividing the sampling grid in the decision unit in order to determine the area of contamination. This comment applies to all AOCs and SWMUs where an incremental sampling approach is utilized." According to Table 6-4, some metal constituents exceed the screening criteria. If discrete soil samples were collected for metals from the same area where ISM samples were collected, compare the results and discuss whether or not further investigation is necessary for the detected metals. Revise the Report accordingly. The Permittee has been provided direction at least 16 times on the use of ISM sampling. See Comment 3.

46. Section 6.5, Conclusions and Recommendations, lines 22-24, page 6-7

Permittee Statement: "The Revised Final Permitted-Initiated Interim Measures Report received a disapproval by NMED on November 7, 2018 and is currently being revised by the Army."

NMED Comment: The revised Parcel 6 Permittee-Initiated Interim Measures Report (PIIM Report) was required to be submitted to NMED no later than April 1, 2019. NMED has not received the report at this time. Failure to submit the PIIM Report constitutes noncompliance with Section VII.L.4 of the FWDA RCRA Permit.

47. Section 6.5, Conclusions and Recommendations, lines 28-30, page 6-7

Permittee Statement: "Since the majority of these locations physically occur within the Parcel 7 boundary, further investigation and remediation strategies will be proposed in a Parcel 7 work plan."

NMED Comment: The statement is not accurate. Feature 4 is divided by the boundary of Parcels 6 and 7. The larger portion of Feature 4 belongs to Parcel 6; however, the investigated area of Feature 4 belongs to Parcel 7. Explain why the area of Feature 4 that belongs to Parcel 6 has not been investigated or will not require further investigation. Figure 6-5 indicates that the area of Feature 4 that belongs to Parcel 6 may require further investigation as well.

48. Section 7.2.2, Sampling Data, Environmental Baseline Survey for the Transfer of Lands at Fort Wingate Depot Activity, New Mexico; USACE, 2000, lines 21-22, page 7-4

Permittee Statement: "This report provides a physical description of Igloo Block B. It also discusses the baseline surveys completed which included ACM, LBP, PCBs, and radon surveys."

NMED Comment: Rodents in the igloos may potentially create hazardous conditions associated with hantavirus. Future investigation for igloo interior must include a survey for hantavirus.

49. Section 7.3.3, Soil Sampling, lines 30-31, page 7-6 and lines 3-4, page 7-7

Permittee Statements: "One ISM surface soil sample and two discrete surface soil samples were collected from 10 of the 100 igloos in AOC 28 (Figure 7-2)."
and,
"Results indicate that no explosives were detected in any of the ISM samples collected. However, "J" qualified concentrations of explosives were detected at two of the drain outfalls. A summary of the sample analysis results is presented in Table 7 2 (located at the end of this section)."

NMED Comment: Table 7-2, *Release Assessment Laboratory Data Summary Table for AOC 28, Igloo Block B,* pages 7-16 – 7-27, does not provide clear distinction between ISM and discrete samples. Clarify which results represent discrete or ISM samples. The results representing ISM samples must be multiplied by the number of subsamples for appropriate evaluation. See Comment 3. Revise the Report accordingly.

50. Section 7.4.1, Soil Investigation, Igloo Aprons, lines 6-7, page 7-8

Permittee Statement: "Figure 7-7 shows the M ISM I decision units."

NMED Comment: All sampling locations shown in Figure 7-7, *Multi-Incremental Soil Sample Locations, Igloos, AOC 28* are identified as "SS-M" rather than "M ISM I". Revise the Report, as necessary.

51. Section 7.5, Evaluation of Current Investigation (2011)

Permittee Statement: "As summarized in Table 7-5, constituent concentrations in soil samples taken around SWMU 28 did not exceed the NMED 2009 screening criteria for explosives (EPA Method 8330B)."

NMED Comment: This section provides discussion for AOC 28 rather than SWMU 28. Correct the typographical error in the revised Report.

52. Section 7.5.1, Soil Characterization, Igloo Drains, lines 33-34, page 7-9

Permittee Statement: "Nineteen composite soil samples collected from Igloo drains in exceedance of the 3.90 mg/kg arsenic screening criterion are as follows (Figure 7-10)."

NMED Comment: Figure 7-5 indicates that the samples collected from igloo drains are discrete rather than composite soil samples. Resolve the discrepancy in the revised Report. In addition, the method used to collect composite samples is not described in the Report. Include the description in the revised Report.

53. Section 7.5.1, Soil Characterization, Igloo Drains, lines 7-9, page 7-11

Permittee Statement: "One composite soil sample (sample ID: 0628B-1074-SS-C-SO), collected from the 0-6 inch bgs depth interval, was in exceedance (3.9 mg/kg) of the 3.90 mg/kg screening criterion for arsenic."

NMED Comment: According to Figure 7-10, *TAL Metals Arsenic and Lead Screening Criteria Exceedances, Igloos and Igloo Drains AOC 28*, the arsenic concentration in the soil sample is recorded as 4.2 mg/kg. Resolve the discrepancy in the revised Report.

54. Section 7.5.1, Soil Characterization, Igloo Drains, lines 13-15, page 7-11

Permittee Statement: "One composite soil sample (sample ID: 0628B-1099-SS-C-SO), collected from the 0-6 inch bgs depth interval, was in exceedance (4.8 mg/kg) of the 3.90 mg/kg screening criterion for arsenic."

NMED Comment: According to Figure 7-10, the arsenic concentration in the soil sample is recorded as 3.9 mg/kg. Resolve the discrepancy in the revised Report.

55. Section 7.5.1, Soil Characterization, Igloo Revetments, lines 2-4, page 7-13

Permittee Statement: "Fifteen ISM soil samples collected from the igloo revetments yielding results in exceedance of the 3.90 mg/kg arsenic screening criterion are as follows (Figure 7-11)."

NMED Comment: 30 subsamples were collected for each ISM sample at the revetment according to Figure 7-6, *Proposed Multi-Incremental Subsampling Locations, Revetments, AOC 28.* The site concentrations recorded in Table 7-4 must be multiplied by the number of subsamples for comparison to the SSLs. See Comment 3. Revise the Report accordingly.

56. Section 7.6.2, Conclusions and recommendations, line 23, page 7-15

Permittee Statement: "These activities [associated with determination of future igloo use] occur external to NMED's RCRA authority."

NMED Comment: Since AOC 28 is located within the RCRA permitted facility and the igloos are part of an AOC, the statement is not accurate. The Permittee must address the NMED's concerns regarding the future use of igloos.

57. Section 8.1.4, Waste Characterization and Contaminants of Potential Concern, lines 22-23, page 8-1

Permittee Statement: "Ammunition was handled and temporarily stored at AOC 42; therefore, explosives and lead are considered the only COPCs."

NMED Comment: The statement does not explain why lead is a contaminant of concern at AOC 42, but not other metals associated with munitions. Section 8.2.2 states that LBP is assumed to be present based on building construction dates. Include the explanation in this section of the revised Report. This comment also applies to other sections of the Report (e.g., Section 12.1.4), where applicable.

58. Section 8.3.3, Soil Sampling, lines 4-5, and 9-10, page 8-4

Permittee Statements: "The ISM sample consisted of 10 increments..."
and,
"Lead was detected at a low concentration of 21 mg/kg. This concentration is below the NMED 2009 residential SSL for lead, which is 400 mg/kg."

NMED Comment: The number of subsamples for the ISM sample was ten. Therefore, the lead concentration must be multiplied by ten to evaluate the risk associated with lead. Accordingly, a concentration of 210 mg/kg must be compared to the screening level of 400 mg/kg. The concentration is still below 400 mg/kg and the outcome of data interpretation will not change. However, the statement must be revised to incorporate appropriate interpretation of the ISM results. See Comment 3. This comment also applies to Section

9.3.4.1.

59. Section 8.5.1, Soil Characterization, lines 27-29, page 8-5

Permittee Statement: "As summarized in Table 8-3, constituent concentrations in soil samples taken around AOC 42 did not exceed the NMED 2009 residential screening criteria for RCRA metals (EPA Methods 6010B and 7471A)."

NMED Comment: The number of subsamples for the ISM sample was 30. Therefore, the site metals concentrations must be multiplied by 30 to evaluate the risk associated with each metal. See Comment 3. Revise the Report accordingly. This comment also applies to Section 9.5.1.

60. Section 11.5, Evaluation of Current Investigation, lines 31-33, page 11-5

Permittee Statement: "As summarized in Table 11-3, RCRA total metals (EPA methods 6010B/7471A) were not detected in concentrations exceeding the screening criteria with the exception of arsenic (Figure 11-5)."

NMED Comment: The number of subsamples for the ISM sample was 50. Therefore, the site metals concentrations must be multiplied by 50 to evaluate the potential for hot spots associated with each metal. See Comment 3. Revise the Report accordingly. This comment also applies to Section 13.5.1.

61. Section 12.3.3, Soil Sampling, lines 18-19, page 12-4

Permittee Statement: "The ISM sampling locations are shown in Figure 12-2."

NMED Comment: Figure 12-2 is not included in the Report. The Report includes two copies of Figure 12-1. Include Figure 12-2 and remove one copy of Figure 12-1 from the revised Report.

62. Section 12.4, Current Investigation (2011), lines 10-11, page 12-5

Permittee Statement: "Sample locations with associated sample identifiers are listed in Table 10-2."

NMED Comment: Table 10-2 is not pertinent to AOC 81. Presumably, the referenced table is Table 12-2. Correct the reference in the revised Report. In addition, although Table 12-2 is appropriately titled as "Parcel 6 AOC 81, Sample Locations with Associated Sample Identifiers", the content of Table 12-2 does not provide any pertinent information. The content of Table 12-2 is identical to that of Table 12-1 which provides a summary of the release assessment laboratory data. Revise Table 12-2 to include pertinent information.

63. Section 12.5.1, Soil Characterization, lines 35-37, page 12-5

Permittee Statement: "As summarized in Tables 12-2 and 12-3, neither explosives (EPA Method 8330B), nor RCRA metals (EPA Methods 6010B and 7471A) were detected above screening values."

NMED Comment: Table 12-3 provides the 2011 analytical results for metals. However, a table that provides the 2011 analytical results for explosive compounds is not included in the Report. If explosive compounds were detected below the applicable screening levels during the 2011 investigation, include the table summarizing the results of explosive compound analysis in the revised Report. In addition, the number of subsamples for the ISM sample was 50. Therefore, the site concentrations must be multiplied by 50 for comparison to the SSLs associated with the detected constituents. See Comment 3. Revise the Report accordingly.

64. Section 13.1.1, Location, Description, and Operational History, lines 4-5, page 13-1

Permittee Statement: "Area of Concern 83 is located in the west-central portion of Parcel 6, as shown in Figure 13-1."

NMED Comment: Figure 13-1 is not included in the Report. Include the figure in the revised Report.

65. Section 14.4, Current Investigation (2011), lines 12-13, page 14-5

Permittee Statement: "Sampling was conducted in accordance with the approved Work Plan (CH2M Hill, 2011) and Section 2.5 of this report."

NMED Comment: Although the Permittee states that sampling was conducted in accordance with the approved work plan, the ISM sampling procedure referenced in EPA Method 8330B was not followed. For example, the method states, "[t]o establish the sampling uncertainty for estimating mean concentrations of energetic material residues, triplicate multi-incremental samples should be collected..." The Permittees did not collect triplicate samples. The data collected from ISM samples can only be used for screening purposes (e.g., to determine hot spots) as stated by multiple comments previously provided by NMED. The ISM data cannot be used for compliance purposes. NMED cannot accept conclusions and recommendations that were drawn from the ISM data where the Permittee did not appropriately follow Method 8330B. This comment applies to all sections where ISM samples were used. See Comment 3.

66. Table 4-1, Summary of reportable Concentrations for Soil Analyses Completed at SWMU 8, Building 537 (Page 14 of 17), page 4-25

NMED Comment: The table notes that the concentrations exceeding SSLs are bold and positive detections of organic compounds are shaded. The Aroclor 1260 concentration in soil sample B537TK081 exceeded the SSL. Accordingly, the concentration is shown with bold

font; however, it is not shaded. Since Aroclor 1260 is an organic compound, the concentration should be shaded. Correct the table in the revised Report, as necessary.

67. Table 4-5, Parcel 6 SWMU 8, Method 8270C Semi-Volatile Organic Compounds Soil Investigation Detected Constituents, page 4-34

NMED Comment: The table presents analytical results for total petroleum hydrocarbon oil range organics, rather than semi-volatile organic compounds as titled. Correct the title in the revised Report.

68. Table 4-7, Parcel 6 SWMU 8, Method 8015M Oil Range Organics Soil Investigation Detected Constituents, page 4-38

NMED Comment: The table presents analytical results for polychlorinated biphenyls, rather than oil range organics as titled. Correct the title in the revised Report.

69. Table 4-8, Parcel 6 SWMU 8, Method 8081A Pesticides Soil Investigation Detected Constituents, page 4-40

NMED Comment: The table presents analytical results for metals, rather than pesticides as titled. Correct the title in the revised Report.

70. Table 7-5, Parcel 6 SWMU 8, Method 8330B Explosives Soil Investigation Detected Constituents, page 7-83

NMED Comment: The sample identification nomenclature does not provide a definition for "C" and "M". Revise the table to include the definitions. This comment also applies to all other tables, where applicable (e.g., Table 8-3).

71. Figure 5-5, Soil Sample Locations, SWMU 11, page 5-49

NMED Comment: Surface soil samples were not collected at borings SB01, SB02, SB03, and SB04. These borings were installed to assess whether potential discharges from loading/unloading or wash-down practices resulted in releases to the environment. Surface soils were likely affected by the operations. Provide a justification for not collecting surface soil samples at the locations in the revised Report. The Permittee may be required to collect the surface samples at these locations during future investigation efforts.

72. Figure 7-6, Proposed Multi-Incremental Subsampling Locations, Revetments, AOC 28, page 7-89

NMED Comment: The figure depicts an igloo and igloo apron rather than a revetment. Revise the figure.

73. Figure 12-3, Proposed Sampling Locations, AOC 81, page 12-13

NMED Comment: Figure 12-3 identifies the location of AOCs 28 and 84; however, the location of AOC 81 is not identified. Identify the location of AOC 81 in the revised figure.

74. Photographs, Photos 5-13 and 5-14, SWMU 11, page 5-57

NMED Comment: The description for the photographs indicates that soil boring [SB]03 hit an old unmarked water pipe. Boring SB03 was advanced west of the sanitary sewer line according to Figure 5-3; however, the pipeline identified during the advancement of boring SB03 is not shown on the figure. Revise the figure to depict the pipeline. Additionally, it is not clear what depth the boring hit the pipeline, whether the pipeline was removed, the pipeline use, or whether the released water contained any contaminants. Provide a detailed discussion of the incident in the revised Report.

75. Appendix A, Responses to Regulatory Agency Comments

NMED Comment: The Permittee includes the March 21, 2018 letter requesting an extension from March 31, 2018 to March 31, 2019 in Appendix A; however, NMED's correspondence to the Permittee's extension request is not included. Since the Report was submitted on March 25, 2019, presumably there is a record for approving the extension request. Provide the missing correspondence documents in the revised Report.

The Permittee must submit a revised Report that addresses all comments contained in this Disapproval. Two hard copies and an electronic version of the revised Report must be submitted to NMED. The Permittee must also include a red-line strikeout version in electronic format showing where all revisions to the Report have been made. The revised Report must be accompanied with a response letter that details where all revisions have been made, cross-referencing NMED's numbered comments. The revised Report must be submitted to NMED no later than **September 2, 2019**.

All documents submitted by the Permittee to the NMED subsequent to receipt of this letter shall include the certification included in 40 CFR 270.11(d)(1) in its entirety and without any modification above the signature line(s) on each document.

Should you have any questions, please contact Michiya Suzuki of my staff at (505) 476-6059.

Sincerely,

John E. Kieling
Chief
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB
B. Wear, NMED HWB
M. Suzuki, NMED HWB
C. Hendrickson, EPA Region 6 (6LCRRC)
L. Rodgers, Navajo Nation
S. Begay-Platero, Navajo Nation
M. Harrington, Pueblo of Zuni
C. Seoutewa, Southwest Region BIA
G. Padilla, Navajo BIA
J. Wilson, BIA
B. Howerton, BIA
R. White, BIA
C. Esler, Sundance Consulting, Inc.

File: FWDA 2019 and Reading, Parcel 6

Army Response to NMED Disapproval Letter (dated June 4, 2019) on the Final RCRA Facility Investigation Report, Parcel 6, Revision 1.0 dated March 29, 2019

NMED Comment #	Section	Line #/Page #	Permittee Statement	NMED Comment	Army Response
1	**Overarching Issues with the Report**	N/A	N/A	The Permittee has again provided a document that appears not to have been reviewed for quality, accuracy, or completeness prior to submittal. The Permittee has repeatedly been directed to ensure that the documents they submit are accurate and complete. The Permittee is required to submit a redline-strikeout version of the Report that shows where all changes have been made. The redline-strikeout version provided by the Permittee does not show all changes that were made to the Report. The Permittee is also required to provide a response-to-comment table (RTCs) indicating where changes were made to the Report based on NMED's previous comments. Every page number/line reference in the table that the Permittee provided is inaccurate. Review time for this document was significantly increased by both issues because the reviewer was forced to re-review the entire document versus being able to review just where changes were made based on the redline-strikeout version and the response-to-comment table. In addition, the Report is missing figures and tables referenced in the text and contains multiple inaccuracies. The Report also contains many other issues that have previously been commented on by NMED, including the inclusion of inappropriate appendices, the inclusion of other reports in appendices, and inappropriate appendix designations within an appendix. The Permittee's submittal of inaccurate documents constitutes noncompliance [see 40 CFR 270.11(d)(l)]. All documents submitted by the Permittee to the NMED subsequent to receipt of this letter shall include the certification included in 40 CFR 270.11(d)(l) in its entirety and without any modification above the signature line(s) on each document.	Concur. Additional investigation is being conducted to address comments in this Disapproval Letter as outlined in the Supplemental RFI Work Plan. Following completion of this work, a Report will be submitted. This report will be a new RFI Report and will be submitted as a clean version (i.e., not a redline-strikeout version) for NMED review. All submittals of the RFI Report incorporating NMED comments will comply with NMED requests in this comment.
2	**Electronic Media Provided**	N/A	N/A	The Permittee provided three media discs with the formal submittal of the Report. Each disc is labeled "Disk 1 of 1". This is misleading. Each disc should have been labeled "Disk 1 of 3", "Disk 2 of 3" or "Disk 3 of 3" for continuity and organization. In addition, one of the discs contained the revised Report and four of the Appendices, one disc contained only the same four Appendices included with the first disc, and the third disk contained only the inaccurate redline-strikeout version of the Report. It is redundant and unnecessary to include the same appendices on more than one disc. Again, this illustrates a lack of review for quality, accuracy, and completeness. For all future submittals, ensure that labels on media are accurate and that the submitted media contains the appropriate information.	Concur. The RFI Report will be submitted on accurately labeled CDs containing all parts of the report, numbered sequentially, as appropriate.
3	**Incremental Sampling Methodology**	N/A	N/A	As stated in comments issued by the NMED to the Permittee spanning more than a decade, Incremental Sampling Methodology or Multi-Incremental (ISM or MI) samples in this application are only appropriate for screening-level decisions. NMED's September 5, 2007 *Notice of Disapproval Parcel 21 RCRA Facility Investigation Work Plan and Release Assessment Report for Parcel 21* states: The Permittee proposes to perform multi-incremental (MI) sampling at various SWMUs and AOCs. NMED views multi- incremental sampling for the applications proposed in this Work Plan as a screening tool only. If contamination is identified in soils using MI procedures, the Permittee may be required to conduct additional sampling at selected sites. NMED's December 12, 2008 *Approval with Modification RCRA Facility Investigation Work Plan Parcel 21* states: NMED considers MI sampling to be acceptable as a screening tool in some situations but is appropriate for compliance only for surface releases with detonations as the contaminant release source and then only for explosive compounds and some metals. The Permittee's repeated attempts to use the ISM sampling data for compliance purposes rather than screening purposes make it appear that the Permittees do not understand the function of a screening tool. Therefore, in NMED's February 2, 2018 *Disapproval Final RCRA Facility Investigation Work Plan Parcel 2 Revision 1* , the Permittee was provided with the following comment: The reported constituent concentrations for incremental samples must be multiplied by the number of subsamples in each decision unit for comparison to screening levels. If any exceedances are found during the screening process, the Permittee is also required to conduct additional soil sampling by farther dividing the sampling grid in the decision unit to identify whether there is a local area of contamination. This comment applies to all AOCs and SWMUs where a multi-incremental soil sampling approach is utilized. While three examples of previous comments are provided above, a limited review has identified at least 16 different documents containing similar comments. In this Report, the Permittee has again ignored NMED direction and attempted to utilize ISM sample results for compliance purposes. This is not acceptable. Failure to follow NMED direction constitutes noncompliance and may result in an enforcement action. The NMED does not accept the inappropriate use of the incremental sampling method. NMED will only accept multi-incremental or ISM samples for explosives and metals in large-area surface releases with detonation or airborne distribution as the contaminant release source. The Permittee must review all planned work and revise any plans that propose ISM sampling to propose an alternate sampling approach. NMED hereby rescinds approval of all proposed ISM or MI sampling that was previously approved but has not yet been conducted at the Facility.	Concur. The Supplemental RFI Work Plan for Parcel 6 does not propose ISM sampling and proposes discrete sampling to replace ISM samples where appropriate.
4	**Electronic Version of the Response-to-Comment Table**	N/A	N/A	Although an electronic version of the response to comments (RTCs) was submitted to the NMED as an email attachment, it was not included in the formal submittal. The RTCs must be included as a part of the formal submittal so that it is available for review in the Administrative Record. The Permittee has repeatedly been directed to include the RTCs in their formal submittals. NMED's March 8, 2018 *Disapproval Final RCRA Facility Investigation Work Plan Parcel 9 Revision 1* (March 8, 2018 Disapproval) states: The Permittee did not provide an electronic version of their response to NMED's Disapproval comments on the included CD. **For all future revised document submittals**, provide an electronic version of the Permittee's response to comments with the electronic version of the submittal. For any future submittals, the Permittee must include the RTCs in the electronic version on the CDs. Failure to follow NMED direction constitutes noncompliance and may result in an enforcement action.	Concur. The RTCs file will be included on future report CD submittals to NMED.

<table>
<tr><th>NMED Comment #</th><th>Section</th><th>Line #/Page #</th><th>Permittee Statement</th><th>NMED Comment</th><th>Army Response</th></tr>
<tr><td>5</td><td>Redline-Strikeout Version of the Report</td><td>N/A</td><td>N/A</td><td>There are section numbers in the final and redline-strikeout (RLSO) versions of the Report that are not consistent. For example, Section 4.3.1, Soil Investigation, in the final version is numbered as Section 4.2.4 in the RLSO version. Correct the errors in the RLSO version to be consistent with the final version of the Report. In addition, all revisions were not identified in the RLSO version, as required. For example, Section 6.3.1 of the final version uses the terminology "ISM samples"; however, the same section of the RLSO version uses different terminology "Multi-Incremental". The difference is not identified in the RLSO version. The RLSO version must identify all revisions made to the previous version of the Report. Failure to provide in accurate RLSO version slows review by creating the potential for changes to be overlooked. The inability to identify changes to a document can be misleading and implies, at best, poor quality control and, at worst, a deliberately misleading submittal on the part of the Permittee. Comment 2 of NMED's October 29, 2018 Disapproval Final RCRA Facility Investigation Report Parcel 7 Revision 1 (October 29, 2018 Disapproval) states:

The Report was revised extensively; however, all revisions were not identified in the RLSO version. For example, although many new sections, tables and figures were added to the revised Report, these changes were not identified in the RLSO version. Similarly, new acronyms and abbreviations were added to the List of Acronyms and Abbreviations; however, most of the new acronyms and abbreviations were not identified in the RLSO version. The RLSO version must identify all revisions made to the previous version of the Report. Failure to provide an accurate RLSO version slows review, creates the potential for changes to be overlooked, and the inability to identify changes to a document can be misleading.

The Permittee must provide accurate and complete RLSO versions that show where all changes were made for all revisions of documents. Failure to follow NMED direction constitutes noncompliance and may result in an enforcement action. For future submittals, failure to provide an accurate RLSO version may result in a second fee assessment based on a rejection due to the need for NMED to review the entire document as if it were a new submittal.</td><td>Concur. Additional investigation is being conducted to address comments in this Disapproval Letter as outlined in the Supplemental RFI Work Plan. Following completion of this work, a RFI Report will be submitted. This report will be a new RFI Report and will be submitted as a clean version (i.e., not a redline-strikeout version) for NMED review. All submittals of the RFI Report incorporating NMED comments will comply with NMED requests in this comment.</td></tr>
<tr><td>6</td><td>Response-to-Comment Table</td><td>N/A</td><td>N/A</td><td>The RTCs provide references for the lines and pages where changes were made to the Report based on each response. However, none of the references are accurate.

The Permittee has repeatedly been directed to ensure accuracy in the documents they submit to NMED and have not followed that direction. For example, NMED's October 29, 2018 Disapproval states:

Not all revised sections, tables, and/or figures are referenced in the RTC letter. The RTC letter must identify all revised parts of the Report required by the NMED comments. Ensure that the RTC letter is accurate and complete for all future submittals.

Failure to follow NMED direction constitutes noncompliance and may result in an enforcement action. The Permittee must provide an accurate RTC table for this Disapproval that also includes the changes made for the current version based on the comments provided by NMED in the November 7, 2018 Disapproval Final Permittee-Initiated Interim Measures Report Parcel 6, Revision 1 (November 7, 2018 Disapproval).

The Permittee has frequently received comments on the contents of appendices. For example, NMED's March 9, 2016 Disapproval Final RCRA Facility Investigation Work Plan Parcel 20 states [original comment and table reduced to issues included in this Report]:

The Permittee has provided a document that is difficult to review. The Work Plan includes appendices that are not needed or required. Inclusion of these appendices requires NMED to review and provide comments on each of them, thereby significantly slowing the review process. Removal of these types of appendices will allow NMED to provide more rapid review of documents. The extraneous appendices and suggestions include:
<table>
<tr><th>Appendix and Title</th><th>Suggestion</th></tr>
<tr><td>Appendix D: Uniform Federal Policy for Quality Assurance Project Plan/SOPs - not project specific</td><td>QAPPs are not typically project specific. Detailed methods and procedures to be used at Parcel 20 must be provided in the "Investigation Methods" section of the text.</td></tr>
</table>
Also, many of the appendices contain internal appendices that are labeled similarly to the Plan appendices. For instance, Appendix A contains an Appendix A, Appendix B, and Appendix C. This is confusing for the reviewer, as well as for cross-referencing comments. Revise the Plan to provide a logical naming system for appendices within the Plan appendices, e.g., Appendix A.1, Appendix A.2, etc.

NMED's November 1, 2016 Disapproval Final Interim Measures Work Plan Parcel 21 - Solid Waste Management Unit 1 - TNT Leaching Beds states:

NMED did not review and does not provide approval for:
• Appendix C, Landfill Disposal Management Plan/Documentation
• Final Installation Spill Contingency Plan included in Appendix D
• Appendix E, NRCS Soil Survey of McKinley County, New Mexico
• Appendix G, Programmatic Agreement
• Appendix H, Asphalt Road Construction Specifications
• Appendix I, Laboratory Quality Control Limits

Previous NMED comments on other documents have requested that the Permittee not include full documents or reports as appendices. These documents or reports must be referenced in the Work Plan, but should be submitted to NMED separately as reference documents. In addition, adding full documents, such as the Spill Contingency Plan into an appendix titled, "Field Analysis Work Plan" is confusing. All appendices must have all pages properly numbered for review. Revise the Work Plan to correct these issues.

Three of the appendices listed in the previous comment above were included in the current Report (Appendices B, C and F). NMED's March 8, 2018 Disapproval states:</td><td>Concur. Additional investigation is being conducted to address comments in this Disapproval Letter as outlined in the Supplemental RFI Work Plan. Following completion of this work, a RFI Report will be submitted. This report will be a new RFI Report and will be submitted as a clean version (i.e., not a redline-strikeout version) for NMED review. All submittals of the RFI Report incorporating NMED comments will comply with NMED requests in this comment.</td></tr>
</table>

Army Response to NMED Disapproval Letter (dated June 4, 2019) on the Final RCRA Facility Investigation Report, Parcel 6, Revision 1.0 dated March 29, 2019

NMED Comment #	Section	Line #/Page #	Permittee Statement	NMED Comment	Army Response
7	**Appendices**	N/A	N/A	NMED did not review and does not provide approval for: • Appendix A, Summary Report of Historical Information • Appendix B, Cultural Resources Programmatic Agreement • Appendix C, NRCS Soil Descriptions for Fort Wingate • Appendix D, Quality Assurance Project Plan NMED has repeatedly requested that the Permittee not include full documents or reports as appendices. Three of the four appendices listed in NMED' s previous comment were included in this Report (Appendices B, C and M). Failure to follow NMED direction constitutes noncompliance and may result in an enforcement action. Remove extraneous appendices from the revised Report. The Permittee provided a Quality Control Summary Report in Appendix F. The report does not identify any samples that were reviewed or qualified. The report must identify all samples that were reviewed, all samples that failed any criteria, and all samples that were qualified based on failed quality criteria. In addition, a Data Quality Evaluation Report is located in Appendix M behind the Quality Assurance Project Plan (QAPP). Section 3.5 of this report states, "[t]he samples were submitted in a manner that the duplicate association was "blind" to the laboratory." This is not accurate, as every duplicate sample listed in the report include "-DUP" in its sample ID. Reviewed samples are identified in this data quality report, but while field duplicate precision failed to meet criteria in a field duplicate pair, the only samples that were qualified were the pair. Provide justification for not qualifying all samples associated with the failed field duplicate precision pair. While all of these issues are problematic, this Data Quality Report appears to be specific to samples collected prior to the 2011 investigation. Remove the Data Quality Report in Appendix M along with the QAPP. The Permittee has previously been directed to ensure that quality assurance/quality control procedures and standard practices are followed. NMED's November 19, 2018 *Disapproval Final Permittee-Initiated Interim Measures Report Parcel 24 - Igloo Block A* states: The Work Plan also specifically states, "The identity of field duplicate samples will not be provided to the analysts or laboratory personnel. A log will be kept identifying each field duplicate sample to its parent sample. This procedure ensures that the laboratory will not know which duplicate sample matches the field sample. A table will be provided in the IM report that designates the field duplicate sample to the associated field sample." This procedure was also not followed, as the four duplicate samples were all submitted with "DUP" in the sample identifier. Provide an explanation as to why the cited work plan was not followed. In addition, one of the four field duplicates resulted in concentrations of lead and mercury that were 3 to 5 times the concentrations found in the original sample. According to the Work Plan referenced in Appendix C, the RPD goal for duplicate samples ≤20%. Half of the duplicate samples exceed the 20% goal, yet no samples were qualified. The cited work plan specifically states, "Field duplicates will be evaluated by %RPD or, at low levels (i.e., when one or both results are less than 5 x Limits of Quantitation [LOQ]), the absolute difference in results (/S-D/). The specific numeric criteria for field duplicates for this project are as follows: • When one or both results are less than 5 x LOQ, the extent of variability will be considered acceptable if, for soil samples, /S-D/ is less than the magnitude of LOQ x 2 and, for water samples, /S-D/ is less than the magnitude of the LOQ. • When both results are greater than 5 x LOQ, the extent of variability will be considered acceptable if, for soil samples, %RPD is less than 50% and, for water samples, %RPD is less than 35%."	Concur. Extraneous appendices will not be included in the RFI Report to be submitted following implementation of the Supplemental RFI Work Plan.
8	**Quality Control**	N/A	N/A	General QA/QC standards would require all data above the target 20% RPD to be qualified with a J flag for estimated value and all data that exceeds 50% RPD to be rejected and qualified with a R flag. The Permittee provides no discussion of this issue in the Report text. The Permittee must provide a discussion of the issue and justification (other than professional judgement) for not qualifying and/or rejecting all data based on the duplicate sample results with half of the duplicates exceeding the RPD range for acceptability. Failure to follow NMED direction constitutes noncompliance and may result in an enforcement action. Remove all inaccurate statements from the Report. Remove the Data Quality Report from Appendix M along with the QAPP. In addition, qualify all samples associated with failed field duplicate precision and provide a table indicating which samples were qualified.	Concur. The RFI Report to be submitted following additional work at Parcel 6 will comply with NMED requests in this comment.
9	**Extraneous Data**	N/A	N/A	The Permittee included multiple tables including tables presenting data collected prior to the effective date of the FWDA RCRA Permit. This data was previously presented in the March 30, 2011 *Final - NMED Revised RCRA Facility Investigation Work Plan Parcel 6* (Work Plan) and was used qualitatively to direct the 2011 investigation, but the data cannot be relied on for any decision-making purposes. The qualitative data is compared in the tables to NMED's 2006 soil screening levels (SSLs). This is not appropriate. Remove all data from the revised Report that was collected prior to the March 30, 2011 NMED-approved Work Plan. In addition, remove all maps depicting sample locations for any data collected prior to the March 30, 2011 NMED-approved Work Plan.	Concur. Data collected prior to March 30, 2011 will not be relied on for decision-making purposes and will not be included in the upcoming RFI Report. The Supplemental RFI Work Plan does not include data collected prior to March 20, 2011.
10	**Field Method Descriptions**	N/A	N/A	The Permittee has repeatedly been directed to provide descriptions of activities conducted in the field in the text of the Report. References to work plans or standard operating procedures are not sufficient. For example, Section 3.3 states that soil samples were collected, but there is no indication of how the soil samples were collected. There is no indication of what type of drilling was used to gain access to a sample collection point. NMED's November 19, 2018 Disapproval states, Soil sampling procedures were not described in the Report. All methods used in the field must be described in the Report. Provide details of the soil sampling procedures, including duplicate sample collection, in the revised Report. Provide descriptions of all methods utilized in the field in the text of the revised Report. Failure to follow NMED direction constitutes noncompliance and may result in an enforcement action.	Concur. The field sampling methods and procedures to be used in the upcoming Supplemental RFI are described in Section 13 of the Supplemental RFI Work Plan. All field sampling methods and procedures used to collect data will be included in the upcoming RFI Report.

SPECIFIC COMMENTS

11	**Response to NMED's Disapproval Comment 1**	N/A	"Nonetheless, the Army has provided a lines-of-evidence discussion on potential soil to groundwater impact at relevant P6 SWMUs and AOCs."	Although the Permittee states that a line-of-evidence discussion is provided, the relevant SWMUs and AOCs where the discussion was added are not stated in the RTC table. The RTC table must identify the sections, tables, and figures where changes were made to the Report to reflect the response. Revise the RTC table accordingly. In addition, if the lines-of-evidence discussion is not provided for a particular site (e.g., SWMU 20), explain why the discussion is not provided in the response letter.	Concur. Additional investigation is being conducted to address comments in this Disapproval Letter as outlined in the Supplemental RFI Work Plan. Following completion of this work, a RFI Report will be submitted. This report will be a new RFI Report and will be submitted as a clean version (i.e., not a redline-strikeout version) for NMED review. All submittals of the RFI Report incorporating NMED comments will comply with NMED requests in this comment.
12	**Response to NMED's Disapproval Comment 1**	N/A	"The field work associated with this RFI report was completed in 2011, and the RFI report was submitted to NMED in 2012. Therefore, Army utilized NMED Risk Guidance 2009 which was the most current guidance available at the time field work was completed."	The statement is not accurate. Data provided in the Parcel 6 database indicates samples were collected in 2012, and investigation work has continued at Parcel 6 through at least 2018 via interim measures; therefore, field work has not been completed and risk assessment is premature. Following completion of all field work at Parcel 6, conduct a risk assessment using the NMED Risk Assessment Guidance that is in effect at the time of completion. In addition, while the Permittee states that they utilized NMED's 2009 Risk Guidance, the residential SSLs provided in their tables do not match the 2009 SSLs. For example, Table 4-4 lists the residential SSL for benzo(a)pyrene as 621 µg/kg. NMED's 2009 residential SSL for benzo(a)pyrene was 481 µg/kg. The residential SSL utilized for perchlorate in Table 4-9 is three orders of magnitude higher than NMED's 2009 SSL. This indicates a lack of document quality control. Revise the Report to remove all risk assessment and all inaccurate statements.	Concur. Following completion of all field work at Parcel 6, the Army will conduct a risk assessment using the NMED Risk Assessment Guidance that is in effect at the time of completion.

Army Response to NMED Disapproval Letter (dated June 4, 2019) on the Final RCRA Facility Investigation Report, Parcel 6, Revision 1.0 dated March 29, 2019

NMED Comment #	Section	Line #/Page #	Permittee Statement	NMED Comment	Army Response
13	**Response to NMED's Disapproval Comment 2**	N/A	"Army has updated the text accordingly and included a reference to the 2013 Arsenic Background Letter, as well as a discussion on the rationale why the site is not a potential source of arsenic." and, "The Army has not included this recent arsenic revision (2017) into this revised P6 RFI Report Rev 1.0 document for the following reasoning: 1. Army relied on NMED's comments in this NOD to revise the document as appropriate which requests Army to include the 2013 Arsenic Background Memo [first argument], 2. The field work was completed in 2011 and Army utilized the NMED Risk Guidance, 2009, which predates the 2017 arsenic SSL revision [second argument]."	See Comment 12. Remove all risk assessment from the revised Report as it is premature. Following completion of all field work at Parcel 6, risk assessment must be conducted using the NMED Risk Assessment Guidance that is in effect at the time of completion.	Concur. Following completion of all field work at Parcel 6, the Army will conduct a risk assessment using the NMED Risk Assessment Guidance that is in effect at the time of completion.
14	**Executive Summary, ES.3, Investigation Findings, SWMU 4 Building 600 (Former Building 539)**	**lines 16-17, page ES-2**	"SVOCs (EPA Method 8270C); and explosives (EPA Method 8330B) were not detected in any of the soil samples from SWMU 4."	According to Table 3-1, *Summary of Reportable Concentrations for Soil Analyses Completed at SWMU 4, Building 600* , several SVOCs were detected at SWMU 4. The constituents were detected during the previous investigation. Revise the statement for accuracy.	Concur. The referenced text in the now withdrawn RFI Report included typographical errors. The Army regrets the presence of inaccuracies and discrepancies in the previously submitted report. The forthcoming RFI Report will be a new deliverable that is completely re-written and will include appropriate quality assurance review. It is acknowledged that SVOCs were detected in soil samples collected in 2000. However, the concentrations were less than the NMED Residential SSLs. This comment will be addressed in the upcoming RFI Report.
15	**Executive Summary, ES.4, Conclusions and Recommendations, SWMU 8 Building 537**	**lines 31-33, and page ES-6**	"Additional soil sampling for PCBs and PAHs following soil excavation per the NMED approved Final Permittee-Initiated Interim Measure Work Plan Parcel 6 Revision 1.0 (IMWP), dated May 4, 2015 is required."	Comment 11 in the November 7, 2018 Disapproval states, "[p]ropose to submit a phase 2 interim measures work plan to evaluate for the presence of [asbestos containing material] (ACM) in SWMU 8. This requirement was not included in the Report. Include the requirement in the revised Report.	Concur. As described in Section 3.2.2.1 of the Supplemental RFI Work Plan, an asbestos survey was conducted at Building 537 and results were summarized in the Final Asbestos Survey Report, Volume II, Book 1 (Pickering Environmental, 1990). Results indicated that ACM was present in approximately 50 linear feet of insulated pipe in the basement crawlspace at Building 537. As later described in Section 3.2.2.5, friable ACM was abated in 1999, as summarized in Environmental Baseline Survey for the Transfer of Lands at Fort Wingate Depot Activity, New Mexico (USACE, 2000). Building 537 was demolished by PIKA in 2010. An asbestos survey was completed for Parcel 6 on November 7 and 8, 2013, by an accredited asbestos building inspector with an unexpired license and submitted to NMED for review on February 20, 2020, in the Final Asbestos Survey Report, Parcel 22, Fort Wingate Depot Activity, Gallup, New Mexico (USACE, 2020). However, no buildings were present at SWMU 8 by the time of the 2020 Asbestos Survey Report, therefore no additional ACM survey was conducted at SWMU 8. ~~This survey addresses NMED Comment 11 of the PIIM Disapproval letter (NMED, 2018) on the 2015 RFI Report (USACE, 2015).~~ Field teams will be briefed on the findings of the ACM survey prior to initiating fieldwork as described in Section 11.2 of the Supplemental RFI Work Plan.
16	**Executive Summary, ES.4, Conclusions and Recommendations, AOC 28, Igloo Block B**	**lines 13-15, page ES-7**	"Removal of lead exceedances will be completed per the NMED approved Final Permittee-Initiated Interim Measure Work Plan Parcel 6 Revision 1.0 (IMWP), dated May 4, 2015."	Comment 8 in the November 7, 2018 Disapproval states, "propose to submit a Phase 2 interim measures work plan that proposes to further subdivide the decision units for collection of MI samples or collect discrete samples where further characterization is warranted [for the investigation of AOC 28]. This requirement was not addressed in the Report. Failure to follow NMED direction constitutes noncompliance and may result in an enforcement action. Include the requirement in the revised Report.	Concur. Additional site characterization and sampling to address comments in the NMED disapproval letter (NMED, 2019) are being addressed in a separate RFI Work Plan for the igloos and revetments at FWDA. The Army submitted the Igloo Exteriors and Revetments RCRA Facility Investigation Sampling Work Plan to NMED on 20 July 2023. Recommended corrective measures will be addressed in a corrective measures work plan as needed following the completion of the RFI. This is addressed in Section 1.2 and Table 1.1 of the Supplemental RFI Work Plan.
17	**Section 2.5, Current Investigation**	**line 36, page 2-9 and line 1, page 2-10**	"Copies of original laboratory reports are included in Appendix E."	Thirty-seven analytical laboratory level IV reports are included in Appendix E, *Analytical Lab Reports* , totaling approximately 50,000 pages. The Permittee has previously been directed to not submit level IV analytical laboratory reports. NMED's November 7, 2018 Disapproval states: The Report includes Level IV reports from the analytical laboratories. This has resulted in over 18,000 pages of laboratory reports for this Report. These reports are unneeded and cumbersome. NMED requests that only Level II analytical laboratory reports be included in all submittals. Revise the Report by removing Level IV analytical reports and including Level II analytical reports. Remove Level IV analytical reports from the revised Report and replace them with the Level II analytical reports.	Concur. Only Stage 2 analytical laboratory reports will be included in the upcoming RFI Report for samples collected in accordance with this Supplemental Work Plan. However, Stage 2 analytical laboratory reports are not available for the initial RFI data. In addition, where multiple analytical and quality assurance/quality control reports are included, the Army will include descriptive bookmarks indicating where each new report begins. The native analytical table will reference the Sample Delivery Group (SDG) referenced in the laboratory report.
18	**Section 3.2.2, Sampling Data**	**lines 25-27, page 3-4**	"Detected concentrations of explosives are presented in Table 3-2. All concentrations were estimated values less than 1 microgram per liter (µg/L)."	Table 3-2, *Summary of Reportable Explosive Concentrations in Groundwater* , page 3-15, indicates that the reported concentrations are in milligrams per liter (mg/L). Resolve the discrepancy in the revised Report.	Concur. Tables in the upcoming RFI Report will be reviewed to ensure that units are presented correctly. However, data collected prior to March 30, 2011 will not be relied on for decision-making purposes and will not be included in the upcoming RFI Report. The Supplemental RFI Work Plan does not include data in tables or figures collected prior to March 20, 2011. Section 4.2.2.4 Phase 1 RCRA Facility Investigation Report for Buildings 600 and 542 of the Supplemental RFI Work Plan refers to the groundwater sample results presented in Table 7-2 of the RFI Work Plan (USACE, 2011) where the concentrations are in ug/L: "*Two rounds of groundwater samples were collected from the Phase 1 RFI monitoring wells in 2001. Positively detected concentrations are presented in the RFI Work Plan (USACE, 2011 [Table 7-2]). Analytical data indicated low levels of explosives (RDX, 2,4-dinitrotoluene, 2,6-dinitrotoluene, and nitrobenzene) in five of the six new wells and also in well TMW11 where explosives were originally detected. However, all these wells are located hydraulically upgradient of Buildings 541 and 542. All concentrations were estimated values less than 1 µg/L.* "
19	**Section 3.2.2, Sampling Data**	**lines 32-34, page 3-4**	"Nitrate and nitrite were also detected in two wells, TMW 11 and TMW 15, although concentrations were substantially below the New Mexico WQCC standards and EPA MCLs."	According to Table 3-2, the nitrate concentrations in groundwater samples collected from these wells ranged from 690 mg/L to 1,800 mg/L. Resolve the discrepancy in the revised Report.	Concur. The detections in wells TMW 11 and TMW 15 will be verified and presented appropriately in the upcoming RFI Report.
20	**Section 3.5.2, Conclusions and Recommendations**	**lines 17-19, page 3-10**	"In addition, SWMU 4 did not have any historical uses which may attribute to the site being a source of arsenic contamination, especially since explosives were not detected in SWMU 4 soils."	Discuss the correlation between explosive compounds and arsenic detections in the revised Report.	Concur. This statement was not intended to imply a correlation between arsenic and explosives; the absence of explosives in soil supports the absence of a source of contamination associated with SWMU 4. This comment will be addressed in the upcoming RFI Report. The discussion of potential arsenic and explosives contamination at SWMU 4 will be addressed separately.
21	**Section 3.5.2, Conclusions and Recommendations**	**lines 25-27, page 3-10**	"Remedial investigation performed to date, as discussed in Section 3.2.2, indicates that none of the target constituents were detected in the subsurface soil samples."	Section 3.2.2 states that low concentrations of several VOCs and SVOCs were detected in some samples. Revise the statement for clarity.	Concur. This statement will be revised in the RFI Report that will be submitted following implementation of the Supplemental RFI Work Plan.
22	**Section 3.5.2, Conclusions and recommendations**	**lines 6-8, page 3-11**	"Based upon these sampling results and the operational history of SWMU 4, the data does not indicate that groundwater has been directly impacted in any way that is attributable to SWMU 4."	The fluoride concentrations in the groundwater samples collected from the relevant wells (e.g., TMW11 and TMW17) exceeded the applicable screening level according to Table 3-2. However, the discussion regarding the exceedance is not included in the section. Include a discussion regarding the detections and exceedances of fluoride concentrations in groundwater samples collected from the wells. Revise the Report accordingly.	Concur. Fluoride detections and exceedances in wells TMW11 and TMW17 are being addressed in the Northern Area Groundwater RFI.

Army Response to NMED Disapproval Letter (dated June 4, 2019) on the Final RCRA Facility Investigation Report, Parcel 6, Revision 1.0 dated March 29, 2019

NMED Comment #	Section	Line #/Page #	Permittee Statement	NMED Comment	Army Response
23	**Section 4.1.4, Waste Characteristics and Contaminants of Potential Concern, and Section 4.3, Current Investigation (2011)**	**lines 9-10, page 4-3, and lines 11-12, page 4-7**	"The COPCs for SWMU 8 are RCRA metals, VOCs, SVOCs, pesticides, and PCB."	Forklift hydraulic oil that contained PCBs may have been released to the environment at SWMU 8. The Permittee included total petroleum hydrocarbon oil range organics (TPH-ORO) analysis in the analytical suite for the soil samples collected from the site. However, TPH-ORO was not included as a COPC. Include TPH-ORO as a COPC in the revised Report.	Concur. Samples are proposed at SWMU 8, as discussed in Section 3.5: "Samples will be collected from 0.0 to 1.0 feet bgs (0608B537-SB14-0.0-1.0D-SO and 0608B537-SB15-0.0-1.0D-SO on Figure 3.3) at each location and analyzed for SVOCs (via SW8270E), PAHs (via SW8270E- selected ion monitoring mode [SIM]), explosives (via SW8330B), lead (via SW6020B), PCBs (via SW8082A), and pesticides (via SW8081B), and TPH-ORO (via SW8015D).
24	**Section 4.2.2, Sampling Data, Environmental Baseline Survey for the Transfer of Lands at Fort Wingate Depot Activity, New Mexico, USACE 2000**	**lines 19-20, page 4-5**	"Friable ACM was abated in 1999 and lead-based paint (LBP) was assumed."	The statement does not make sense. Provide a clarification in the revised Report.	Concur. The Supplemental RFI Work Plan and subsequent report will be new deliverables that are completely re-written and will provide clarification for this text.
25	**Section 4.3, Current Investigation (2011), and Section 4.3.1, Soil Investigation**	**lines 32-33, page 4-7, and lines 2-3, page 4-8**	"As directed by the RFI Work Plan for Parcel 6 (CH2M Hill, 2011), and as shown in Figure 4-6, 13 borings were advanced in the areas surrounding Building 537."	According to Figure 4-6, *Soil Sample Locations, SWMU 8* , there are 15 boring locations in the vicinity of Building 537. Correct the statement in the revised Report or provide a clarification for the discrepancy.	Concur. The number of boring locations (15) in the vicinity of Building 537 will be corrected in the RFI Report that will be submitted following implementation of the Supplemental RFI Work Plan.
26	**Section 4.3.1, Soil Investigation**	**lines 4-17, page 4-8**	N/A	Surface soil samples at a depth below 0-1-foot ground surface were not collected from borings 0608-SB14 and 0608-SB15. Since both PCBs and pesticides likely remain in the shallow soils, surface soil samples should have been collected. Since further investigation is warranted at SWMU 8, include a proposal to collect surface soil samples at the boring locations in the phase 2 investigation work plan.	Concur. The Supplemental RFI Work Plan proposes to collect discrete surface soil samples at the locations of borings 0608-SB14 and 0608-SB15. The following text has been included in Section 3.5 of the Supplemental RFI Work Plan: *"To address Comment 26 of the disapproval letter (NMED, 2019), one soil sample will be collected at the locations of borings 0608B537-SB14 and 0608B537-SB15. Samples will be collected from 0.0 to 1.0 feet bgs (0608B537-SB14-0.0-1.0D-SO and 0608B537-SB15-0.0-1.0D-SO on Figure 3.3) at each location and analyzed for SVOCs (via Method SW8270E), PAHs (via Method SW8270E-selected ion monitoring mode [SIM]), explosives (via SW8330B), RCRA metals (via SW6020B and 7471B), PCBs (via SW8082A), pesticides (via SW8081B), and TPH-ORO (via SW8015D)."*
27	**Section 4.4, Evaluation of Data from Current Investigation (2011)**	**lines 5-7, page 4-9**	"As summarized in Table 4-8, RCRA total metals (EPA methods 6010B/7471A) were not detected in concentrations exceeding the screening criteria with the exception of arsenic at four soil borings (Figure 4-4) around Building 537."	Figure 4-4 depicts the area where PCB contaminated soils remain. It does not depict the area where arsenic exceedances are detected. Reference an appropriate figure in the revised Report.	Concur. All figure references will be reviewed for accuracy in the upcoming RFI Report.
28	**Section 4.5.2, Conclusions and Recommendations**	**lines 8-10, page 4-11**	"Additional soil sampling for PCBs and PAHs following soil excavation per the NMED approved Final Permittee-Initiated Interim Measure Work Plan Parcel 6 Revision 1.0 (IMWP), dated May 4, 2015 is required."	Comment 7 in NMED's November 7, 2018 Disapproval must also be addressed in the revised Report.	Concur. Comment 7 in NMED's November 7, 2018 Disapproval is as follows: "The Permittee used a statement taken out of context from NMED comments on another Parcel 's investigation report to justify use of the 2015 risk guidance. The Permittee failed to include that field work continued to be conducted through 2018 for this investigation. In addition, while the initial risk evaluation was submitted in 2016, the Permittee had not completed the scope of the investigation as approved by NMED; therefore, risk evaluation at that time was not appropriate. NMED's policy is that the risk assessment guidance that is in effect when the field work is completed is the appropriate guidance to follow. Therefore, the Permittee must reevaluate the risk related to Parcel 6 based on NMED's March 2017 Risk Assessment Guidance for Site Investigations and Remediations (Guidance). Revise the Report to include risk assessment based on the appropriate guidance." Following completion of all field work at Parcel 6, the Army will conduct a risk assessment using the NMED Risk Assessment Guidance that is in effect at the time of completion. Section 12 of the Supplemental RFI Work Plan for Parcel 6 describes the risk assessment method that will be followed based on the current NMED guidance. Future revisions to the current NMED guidance will be incorporated into the upcoming RFI Report.
29	**Section 5.2.1, Nonsampling Data**	**lines 18-20, page 5-3**	"The location of the cesspool, the arroyo outfall, and the septic tank that had served Building 542 were all verified, and the structures were still intact."	The locations of the cesspool and the septic tank are shown on Figure 5-3, *Soil and Sediment Sample Locations* . However, the location of the arroyo outfall is not shown on the figure. Indicate the location of the arroyo outfall in the figure. Also, indicate the depth of arroyo outfall in the figure. The outfall location presumably coincides with the sampling location 0611-SB12. In this case, clarify whether the soil samples were collected from a depth below the outfall in the revised Report.	Concur. The location of the arroyo outfall will be labeled in appropriate figures in the upcoming RFI Report and is shown in Figures 4.1 and 4.2 of the Supplemental RFI Work Plan. The following text has been included in Section 4.5 of the Supplemental RFI Work Plan: *"To address Comment 29 of the disapproval letter (NMED, 2019), the depth of the arroyo will be recorded as part of the Supplemental RFI field work at SWMU 11 and included in the RFI Report."* *The depth of the arroyo outfall is currently unknown and will be recorded as part of the upcoming field work at Parcel 6, SWMU 11 and included in the RFI Report. Sample depths for 0611-SB12 were measured from ground surface at the location each sample was collected.* The RFI Report will clarify whether the soil samples were collected below the outfall.
30	**Section 5.2.2.1, Soil Data**	**lines 33-37, page 5-3**	"Four wipe samples were collected from stained or discolored areas on the east loading dock and were analyzed for explosives. One explosive, HMX, was detected in one sample. Four surface soil samples were collected adjacent to the stained areas observed on the east loading dock and were tested for TNT and RDX using immunoassay test kits."	HMX was detected on the loading dock. Subsequently, the Permittee collected soil samples adjacent to the loading dock and tested them for TNT and RDX. Explain why the samples were not analyzed for HMX and provide a justification in the revised Report. This comment also applies to the text lines 11-15, page 5-4. Propose to collect soil samples adjacent to the loading dock to be analyzed for HMX in the phase 2 investigation work plan.	Concur. The referenced samples were collected in the year 2000. Per Section 2.3.1.2 and Section 2.3.1.3 of the Final Work Plan Environmental Characterization Buildings 542 and 600 (PMC, 2000), four wipe samples and four surface soil samples were planned to be collected at the same time from the east loading dock and the west loading dock. The Work Plan (PMC, 2000) indicated that the immunoassay test kits were only analyzing for RDX and TNT, indicative of the presence of explosives. HMX was not an analyte of the immunoassay test kits used in the field. Because the results of the immunoassay test kits on the surface soil samples at the east loading dock were not indicative of explosives, only one soil boring was drilled adjacent to the east loading dock, and samples were collected from 3 to 5 feet bgs and 8 to 10 feet bgs and analyzed for explosives, TAL metals, TCL VOCs, and TCL SVOCs. Because the results of the immunoassay test kits on the surface soil samples at the west loading dock were not indicative of explosives, no boring was advanced. An excerpt from Section 2.3.1.2 of that work plan (PMC, 2000) is provided here for reference for the east loading dock: "Four explosive wipe samples will be collected from stained areas observed on the east loading dock of Building 542 to confirm the presence or absence of explosives. Wipe samples will be collected from chipped and cracked areas, if present. These samples will be sent to an off-site laboratory for analysis of explosives. Four surface soil samples (0.5 feet to 1.0 feet bgs) will be collected adjacent to, and within 2 feet of, the stained areas observed on the east loading dock (Figure 2-5). The samples will be tested for the presence of RDX and TNT using immunoassay test kits. If the test kits do not detect explosives, one soil boring will be drilled adjacent to the east loading dock. If the test kits detect explosives, four soil borings will be drilled adjacent to the east loading dock."

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					In addition, an excerpt from Section 2.3.1.3 of the work plan (PMC, 2000) is provided here for reference for the west loading dock: "Four explosive wipe samples will be collected from stained areas observed on the west loading dock of Building 542 to confirm the presence or absence of explosives. Wipe samples will be collected from chipped and cracked areas, if present. These samples will be sent to an off-site laboratory for analysis of explosives. Four surface soil samples (0.5 feet to 1.0 feet bgs) will be collected adjacent to, and within 2 feet of, the west loading dock. The samples will be tested for the presence of RDX and TNT using immunoassay test kits. If the test kits do not detect explosives, no further sampling will be done near the west loading dock. If the test kits detect explosives, one soil boring will be drilled adjacent to the west loading dock (Figure 2-5)." The following text has been included in Section 4.5 of the Supplemental RFI Work Plan: *"To address Comment 30 of the disapproval letter (NMED, 2019), four soil borings will be installed at the locations of the four samples originally tested in 2000 for TNT and RDX using immunoassay test kits at the east loading dock (TKEDCK01, TKEDCK02, TKEDCK03, and TKEDCK04 (USACE, 2011 [Figure 7-2]). Samples will be collected from 0 to 1.0 feet bgs (proposed sample IDs 0611B542-SB14-0.0-1.0D-SO, 0611B542-SB15-0.0-1.0D-SO, 0611B542-SB01-0.0-1.0D-SO, and 0611B542-SB16-0.0-1.0D-SO on Figure 4.3) and analyzed for VOCs (via SW8260D), SVOCs (via SW8270E), PAHs (SW8270E-SIM), RCRA metals (via SW6020B and 7471B), TPH-DRO (via SW8015D), explosives, and perchlorate (via SW6850).* *Additionally, four soil borings will be installed at the locations of the four samples originally tested in 2000 for TNT and RDX using immunoassay test kits at the west loading dock (TKWDCK01, TKWDCK02, TKWDCK03, and TKWDCK04 (USACE, 2011 [Figure 7-2])). Samples will be collected from 0 to 1.0 feet bgs (proposed sample IDs 0611B542-SB17-0.0-1.0D-SO, 0611B542-SB18-0.0-1.0D-SO, 0611B542-SB19-0.0-1.0D-SO and 0611B542-SB20-0.0-1.0D-SO on Figure 4.3) and analyzed for VOCs (via SW8260D), SVOCs (via SW8270E), PAHs (SW8270E-SIM), RCRA metals (via SW6020B and 7471B), TPH-DRO (via SW8015D), explosives (via SW8330B), and perchlorate (via SW6850)."*
31	**Section 5.2.2.1, Soil Data**	**lines 38-41, page 5-3**	"To further investigate this area, a single soil boring was advanced adjacent to the east loading dock to a depth of 10 feet using hollow stem auger (HSA) drilling. Samples were collected from 3 to 5 feet bgs and 10 to 12 feet bgs."	The statement indicates that soil samples were collected from a depth greater than the total depth of the boring. Explain the sampling method in the revised Report.	Concur. The text in the RFI Report will be revised to reflect the correct sampling interval. The following text has been included in Section 4.2.2.4 of the Supplemental RFI Work Plan: *"To further investigate this area, a single soil boring (542ELD01 in USACE, 2011 [Figure 7-2]) was advanced adjacent to the east loading dock to a depth of 10 feet. Samples were collected from 3 to 5 feet bgs and 8 to 10 feet bgs."*
32	**Section 5.2.2.1, Soil Data**	**lines 42-43, page 5-3**	"Two explosives, HMX and RDX, were detected at low concentrations in the soil samples [collected from the boring]."	According to Table 5-1, *Summary of Reportable Concentrations for Soil Analyses Completed at SWMU 11, Buildings 541 and 542* , the detection of VOCs, SVOCs and metals is recorded; however, the detection of the explosive compounds is not recorded. Resolve the discrepancy in the revised Report.	Comment noted. The detections of HMX and RDX were recorded in the last two rows of "Table 5-1, Summary of Reportable Concentrations for Soil Analyses Completed at SWMU 11, Buildings 541 and 542 (Page 8 of 10)" on page 5-21 of the RFI Report (withdrawn). Per Comment 9, data collected prior to March 30, 2011 will not be relied on for decision-making purposes and will not be included in the upcoming RFI Report. The Supplemental RFI Work Plan does not include data collected prior to March 20, 2011.
33	**Section 5.2.2.1, Soil Data**	**lines 16-17, page 5-4**	"To investigate the building's cesspool, four soil borings were advanced adjacent to the cesspool with HSA drilling."	Five sampling locations adjacent to the cesspool are shown in Figure 5-3. Provide an explanation or resolve the discrepancy in the revised Report.	Concur. One of the locations shown adjacent to the cesspool on Figure 5-3 of the RFI Report represents a sediment sample (542CESSED01). The text in the RFI Report will be revised for clarification. The following text has been included in Section 4.3.3.4 of the Supplemental RFI Work Plan: *"To investigate the building's cesspool, four soil borings (542CES01 through 542CES04) were advanced adjacent to the cesspool with HSA drilling (Figure 5-3)."*
34	**Section 5.2.2.1, Soil Data**	**lines 17-22, page 5-4**	"The borings were advanced to a depth of 20 feet bgs, which was three feet below what was indicated to be the bottom of the cesspool based on original drawings. During the site reconnaissance, the cesspool was measured to be roughly 7 feet deep. Soil samples from each boring were collected from 4 to 6 feet bgs and 18 to 20 feet bgs and were analyzed for explosives, TAL metals, TCL VOCs, and TCL SVOCs."	The depth of the cesspool was 7 feet bgs rather than 17 feet bgs. The soil samples were collected above the bottom depth of the cesspool; however, they should have been collected at the depths one to two feet below the bottom of the cesspool (8 - 9 feet bgs). Soil samples must be collected from the depths where contamination is most likely to be detected in future investigations. Provide an explanation for why the sample collection depths were not modified based on the site reconnaissance in the revised Report.	Concur. The text in Section 5.2.2.1 in the RFI Report will be revised to clarify the total depth of the cesspool as 17 feet bgs. The following text has been included in Section 4.2.2.4 of the Supplemental RFI Work Plan: *"The borings were advanced to a depth of 20 feet bgs, which was three feet below what was indicated to be the bottom of the cesspool (17 feet deep bgs) based on original drawings (CH2M Hill, 2009 [Appendix D.1]). During the site reconnaissance, the depth to the surface of the cesspool was confirmed to be roughly 7 feet bgs."*.
35	**Section 5.2.2.1, Soil Data**	**lines 17-18, page 5-5**	"The water and sediments in the septic tank were removed by vacuum truck and the septic tank was abandoned in place as part of the Phase 1 RFI activities."	According to Figure 5-4, *Monitoring Well Locations SWMU 11, Building 542* , the sanitary sewer line connected to the septic tank extends far beyond SWMU 11. Explain whether the same sewer line is still connected to any active structures outside of the SWMU or if it is completely disconnected or plugged. Discuss whether there is a possibility of wastewater entering SWMU 11 from other sites in the revised Report.	Concur. There are no active structures outside SWMU 11; therefore, the sewer line is completely disconnected. Additional information will be provided in the RFI Report.
36	**Section 5.3.1, Soil Investigation**	**lines 21-24, page 5-9**	"The soil boring was advanced to the water table, with samples collected at 5, 10, and 20 feet bgs and at the bottom of the borehole (37.9 to 38.9 ft. bgs) since the water table was not encountered prior to drilling refusal (Figure 5-5)."	The statement does not make sense. Correct the statement in the revised Report.	Concur. This comment will be addressed in the RFI Report that will be submitted following implementation of the Supplemental RFI Work Plan. The following text has been included in Section 4.2.2.5 of the Supplemental RFI Work Plan: *"The soil boring was advanced to drilling refusal, with samples collected at 4-5 feet, 9-10 feet, 19-20 feet, and 37.9 to 38.9 feet bgs since the water table was not encountered prior to drilling refusal"*
37	**Section 5.3.1, Soil Investigation**	**lines 21-24, page 5-9**	"One soil boring was advanced near the center of the septic tank drain field."	Provide a designation for the referenced soil boring for clarification in the revised Report.	Concur. This comment will be addressed in the RFI Report that will be submitted following implementation of the Supplemental RFI Work Plan. The following text has been included in Section 4.2.2.5 of the Supplemental RFI Work Plan: *"One soil boring (0611B542-SB13) was advanced near the center of the septic tank drain field."*
38	**Section 5.4.1, Soil Characterization**	**lines 27-29, page 5-10**	"Two soil samples from soil boring 6 (SB06) were in exceedance of the 3.90 mg/kg screening criteria for arsenic; one from the 0-1 ft bgs depth interval (6.8 mg/kg) and one from the 9-10 ft bgs depth interval (6.1 mg/kg)."	According to Figure 5-6, *TAL Metals-Arsenic Screening Criteria Exceedances, SWMU 11* , and Table 5-8, *Parcel 6 SWMU 11, Method 6010B/7471A Metals Soil Investigation Detected Constituents* , the arsenic concentration in the soil sample collected from the depth of 9-10 feet bgs is recorded as 8.7 mg/kg. Resolve the discrepancy in the revised Report.	Concur. This comment will be addressed in the RFI Report that will be submitted following implementation of the Supplemental RFI Work Plan. The following text has been included as the second bullet in Section 4.3.1 of the Supplemental RFI Work Plan: *"Arsenic was detected at concentrations exceeding the NMED Human Health Direct Contact SSL of 7.07 mg/kg in two soil samples (8.7 mg/kg at 0611B542-SB06-0910D-SO and 9.0 mg/kg at 0611B542-SB09-0405D-SO). However, arsenic concentrations in both samples were within the site-specific background range for arsenic of 0.2 to 11.2 mg/kg."*
39	**Section 5.4.2, Soil-to-Groundwater Pathway**	**page 5-11**	N/A	The Permittee provides a list of lines-of-evidence that demonstrates the soil-to-groundwater pathway is incomplete. In the list, the item numbers 2 and 3 are missing. Provide the missing lines-of-evidence in the revised Report.	Concur. The list of lines-of-evidence in Section 5.4.2 of the RFI Report contained a typo. The item numbers 4 and 5 were misnumbered. The incorrect item numbers will be corrected in the RFI Report.

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40	**Section 5.4.2, Soil-to-Groundwater Pathway**	**lines 8-12, page 5-12**	"Site conditions of low average precipitation and high evaporation rates in addition to the depth to groundwater being 50 to 70 bgs further supports that analytes reaching groundwater is extremely unlikely."	It should be noted that various analytes have already reached to the depth of groundwater at other sites. Therefore, the statement cannot be used as a reason why further evaluation of the soil-to-groundwater pathway is unnecessary. Remove the statement from the Report.	Concur. The statement will not be included in the RFI Report that will be submitted following implementation of the Supplemental RFI Work Plan.
41	**Section 6.1.1, Location, Description, and Operational History**	**lines 4-7, page 6-1**	"The Western Landfill Area is a former burial site located approximately 0.5 mile west of the Administrative Area, southwest of the Sewage Treatment Plant and directly west of Building 23 as shown in Figures 6-1 and 6-2."	Neither figure indicates the location of the Administration Area, Sewage Treatment Plant or Building 23. Identify these locations in the revised figures.	Concur. These locations will be labeled in the revised figures in the RFI Report that will be submitted following implementation of the Supplemental RFI Work Plan.
42	**Section 6.2.2, Sampling Data, Final Remedial Investigation/Feasibility Study & RCRA Corrective Action Program Document; ERM Program Management Company, 1997**	**lines 8-10, page 6-4**	"The extent of contamination was believed to be limited to the visible waste and associated matrix and not to have impacted the native soil below the landfill."	Provide an example to demonstrate the basis of the statement in the revised Report. For instance, the Permittee states that area DA3 was the only disturbed area found to contain significant amounts of waste. The analytical results of confirmation soil samples collected from area DA3 during the investigation must be referenced and discussed.	Concur. Additional discussion of the 1997 SWMU 20 RI/FS and RCRA Corrective Action Program and associated confirmation samples will be included in the RFI Report. The following text has been included in the end of Section 5.2.2.1 of the Supplemental RFI Work Plan: *"Additional discussion of the 1997 RI/FS and RCRA Corrective Action Program and associated confirmation samples will be included in the RFI Report, following approval of this work plan, to address Comment 42 of the disapproval letter (NMED, 2019)."*
43	**Section 6.2.2, Sampling Data, Final Report on Airborne Geophysical Survey; Battelle, 2009**	**lines, page 6-5**	"The results of the airborne geophysical survey for SWMU 20 are shown in Figure 6-5."	The Section of the Report does not discuss any findings from the geophysical survey. Figure 6-5, *Airborne Geophysical Survey* , page 6-40, was referenced in the section; however, no explanation is provided how to interpret the figure. Include the discussion and explanation in the revised Report.	Concur. This comment will be addressed in the RFI Report that will be submitted following implementation of the Supplemental RFI Work Plan. The following text has been included in Section 5.2.2.3 of the Supplemental RFI Work Plan: *"In January 2009, a low-altitude airborne vertical magnetic gradient geophysical survey was conducted over the Fort Wingate Army Depot, New Mexico (Battelle, 2009). The objective of the survey was to acquire vertical magnetic gradient data to provide an indication of the level of UXO contamination and areas of pits and trenches, and to localize potential sources with sufficient positional accuracy (a few 10s of cm) to permit ground-based reacquisition of targets. The summary report indicated the importance for potential users of these data to recognize that the airborne data should not be used to declare an area free of ordnance contamination. A lack of anomalies may indicate ordnance that is too small or deep to be detected or data that are insensitive to larger ordnance due to high survey altitudes (Battelle, 2009). Anomalies were picked from the peaks in the analytic signal map (USACE, 2011 [Figure 8-5]). The location of these targets is limited by the grid cell size of the data (50cm). The actual target location is usually within 2-3 grid cells, 150cm, of this peak location. The analytic signal strength was used to rank anomalies. The main survey area consisted of 1,650 acres; however, due to topography and vegetation, only 1,489 acres were actually surveyed. The typical survey altitude was 1 to 5 meters above ground level in the low, flat areas, and 5 to 10 meters above ground level in the valleys and rugged terrain areas. Similar text will be added to the RFI Report that will be submitted following implementation of the Supplemental RFI Work Plan."*
44	**Section 6.3.1, Soil Investigation**	**lines 23-24, 26-27, and 33-36, page 6-6**	"An ISM surface soil sample was collected and analyzed for explosives (EPA Method 8330B)." and, "One soil boring was advanced to 5 ft. bgs with discrete soil samples collected at the 0 to 1 ft. bgs and 4- to 5 ft. bgs intervals (Figure 6-6)." and, "All samples were analyzed for; VOCs (EPA Method 8260B); SVOCs (EPA Method 8270C); RCRA metals (EPA Method 601OB and Method 7471A); pesticides (EPA Method 8081A); and chlorinated herbicides (EPA Method 8151); and explosives (EPA Method 8330B)."	Table 6-4 indicates that the ISM samples were analyzed for metals as well. Provide information regarding all analyses conducted for the ISM samples. In addition, the last statement indicates that the ISM samples were analyzed for VOCs and SVOCs. Clarify whether the ISM samples were analyzed for VOCs and SVOCs. Section 6.3.1 generally lacks clarity; revise the Report for clarity.	Concur. The text in Section 6.3.1 will be revised in the RFI Report to clarify the sample analyses for SWMU 20 – Feature 4. The following text has been included in Section 5.2.2.4 of the Supplemental RFI Work Plan for Parcel 6: *"One soil boring (0620WLAND-SB01-0001D-SO) was advanced to 5 feet bgs with discrete soil samples collected at the 0- to 1-foot and 4- to 5-foot bgs intervals. Soil boring samples were analyzed for: VOCs (via SW8260B); SVOCs (via SW8270C); RCRA metals (via SW6010B and SW7471A); pesticides (via SW8081A); chlorinated herbicides (via SW8151); and explosives (vi SW8330B).* *One incremental sampling methodology (ISM) soil sample (0620WLAND-SS-1M-SO) comprised of 50 increments was collected from a 100-foot-by-100-foot decision unit and analyzed for explosives (EPA Method 8330B) and RCRA metals (EPA Method 6010B and Method 7471A) (Figure 5.2). Results are provided in Appendix B (Tables B.5-2 through B.5-4)."*
45	**Section 6.5, Conclusions and Recommendations**	**lines 16-19, page 6-7**	"As demonstrated in the attached Tables 6-3 through 6-5, none of the constituents at SWMU 20 exceeded soil screening criteria under the 2011 investigation. The Army recommends no further characterization at SWMU 20, except for within Feature 4."	Table 6-4 indicates that the ISM samples were analyzed for metals. Comment 10 in the NMED *Disapproval Final RCRA Facility Investigation Work Plan, Parcel 2, Revision 1* , dated February 6, 2018, states, "[t]he reported constituent concentrations for incremental samples must be multiplied by the number of subsamples in each decision unit to evaluate for the presence of hot spots. If any exceedances are found during the screening process, the Permittee is required to conduct additional soil sampling by further dividing the sampling grid in the decision unit in order to determine the area of contamination. This comment applies to all AOCs and SWMUs where an incremental sampling approach is utilized." According to Table 6-4, some metal constituents exceed the screening criteria. If discrete soil samples were collected for metals from the same area where ISM samples were collected, compare the results and discuss whether or not further investigation is necessary for the detected metals. Revise the Report accordingly. The Permittee has been provided direction at least 16 times on the use of ISM sampling. See Comment 3.	Concur. The RFI text will be revised to explain that a soil boring was advanced inside the ISM DU and discrete samples were collected from 0-1 foot bgs and 4-5 foot bgs and analyzed for VOCs (EPA Method 8260B); SVOCs (EPA Method 8270C); RCRA metals (EPA Method 6010B and Method 7471A); pesticides (EPA Method 8081A); chlorinated herbicides (EPA Method 8151); and explosives (EPA Method 8330B). The following text is included in Section 5.3.1 of the Supplemental RFI Work Plan: *"RFI sample 0620WLAND-SB01 was collected within the ISM DU, and discrete samples were collected from 0-1 foot bgs and 4-5 feet bgs. These discrete samples were analyzed for the same parameters as the ISM sample. The results from 0620WLAND-SB01 do not exceed current NMED direct contact SSLs."*
46	**Section 6.5, Conclusions and Recommendations**	**lines 22-24, page 6-7**	"The Revised Final Permitted-Initiated Interim Measures Report received a disapproval by NMED on November 7, 2018 and is currently being revised by the Army."	The revised Parcel 6 Permittee-Initiated Interim Measures Report (PIIM Report) was required to be submitted to NMED no later than April 1, 2019. NMED has not received the report at this time. Failure to submit the PIIM Report constitutes noncompliance with Section VII.L.4 of the FWDA RCRA Permit.	Concur. The Army submitted a letter to NMED on September 25, 2025, requesting the withdrawal of the PIIM Report. NMED subsequently approved the withdrawal request on September 30, 2025.
47	**Section 6.5, Conclusions and Recommendations**	**lines 28-30, page 6-7**	"Since the majority of these locations physically occur within the Parcel 7 boundary, further investigation and remediation strategies will be proposed in a Parcel 7 work plan."	The statement is not accurate. Feature 4 is divided by the boundary of Parcels 6 and 7. The larger portion of Feature 4 belongs to Parcel 6; however, the investigated area of Feature 4 belongs to Parcel 7. Explain why the area of Feature 4 that belongs to Parcel 6 has not been investigated or will not require further investigation. Figure 6-5 indicates that the area of Feature 4 that belongs to Parcel 6 may require further investigation as well.	Concur. The Army conducted a PIIM investigation of the Parcel 6 side of Feature 4. The PIIM results are summarized in Section 5.2.2.5 of the Supplemental RFI Work Plan.
48	**Section 7.2.2, Sampling Data, Environmental Baseline Survey for the Transfer of Lands at Fort Wingate Depot Activity, New Mexico; USACE, 2000**	**lines 21-22, page 7-4**	"This report provides a physical description of Igloo Block B. It also discusses the baseline surveys completed which included ACM, LBP, PCBs, and radon surveys."	Rodents in the igloos may potentially create hazardous conditions associated with hantavirus. Future investigation for igloo interior must include a survey for hantavirus.	Concur. For the interiors of earth-covered magazines (Igloos) in the Northern Area at FWDA (i.e., Parcels 6, 16, 22, and 24), the Army plans to prepare the Igloos for transfer by cleaning the Igloo interiors. The Army recently completed a case study on Igloo cleaning procedures and will provide results to NMED immediately as it is available. This is addressed in Section 1.2 and Table 1.1 of the Supplemental RFI Work Plan.

Army Response to NMED Disapproval Letter (dated June 4, 2019) on the Final RCRA Facility Investigation Report, Parcel 6, Revision 1.0 dated March 29, 2019

NMED Comment #	Section	Line #/Page #	Permittee Statement	NMED Comment	Army Response
49	**Section 7.3.3, Soil Sampling**	**lines 30-31, page 7-6 and lines 3-4, page 7-7**	"One ISM surface soil sample and two discrete surface soil samples were collected from 10 of the 100 igloos in AOC 28 (Figure 7-2)." and, "Results indicate that no explosives were detected in any of the ISM samples collected. However, "J" qualified concentrations of explosives were detected at two of the drain outfalls. A summary of the sample analysis results is presented in Table 7 2 (located at the end of this section)."	Table 7-2, *Release Assessment Laboratory Data Summary Table for AOC 28, Igloo Block B* , pages 7-16- 7-27, does not provide clear distinction between ISM and discrete samples. Clarify which results represent discrete or ISM samples. The results representing ISM samples must be multiplied by the number of subsamples for appropriate evaluation. See Comment 3. Revise the Report accordingly.	Concur. Additional site characterization and sampling to address comments in the NMED disapproval letter (NMED, 2019) are being addressed in a separate RFI Work Plan for the igloos and revetments at FWDA. The Army submitted the Igloo Exteriors and Revetments RCRA Facility Investigation Sampling Work Plan to NMED on 20 July 2023. NMED disapproved the Work Plan on December 19, 2024. Recommended corrective measures will be addressed in a corrective measures work plan as needed following the completion of the RFI. This is addressed in Section 1.2 and Table 1.1 of the Supplemental RFI Work Plan.
50	**Section 7.4.1, Soil Investigation, Igloo Aprons**	**lines 6-7, page 7-8**	"Figure 7-7 shows the M ISM I decision units."	All sampling locations shown in Figure 7-7, *Multi-Incremental Soil Sample Locations, Igloos, AOC 28* are identified as "SS-M" rather than "M ISM I". Revise the Report, as necessary.	Concur. Additional site characterization and sampling to address comments in the NMED disapproval letter (NMED, 2019) are being addressed in a separate RFI Work Plan for the igloos and revetments at FWDA. The Army submitted the Igloo Exteriors and Revetments RCRA Facility Investigation Sampling Work Plan to NMED on 20 July 2023. NMED disapproved the Work Plan on December 19, 2024. Recommended corrective measures will be addressed in a corrective measures work plan as needed following the completion of the RFI. This is addressed in Section 1.2 and Table 1.1 of the Supplemental RFI Work Plan.
51	**Section 7.5, Evaluation of Current Investigation (2011)**	N/A	"As summarized in Table 7-5, constituent concentrations in soil samples taken around SWMU 28 did not exceed the NMED 2009 screening criteria for explosives (EPA Method 8330B)."	This section provides discussion for AOC 28 rather than SWMU 28. Correct the typographical error in the revised Report.	Concur. The typographical error will be corrected in future documentation for AOC 28.
52	**Section 7.5.1, Soil Characterization, Igloo Drains**	**lines 33-34, page 7-9**	"Nineteen composite soil samples collected from Igloo drains in exceedance of the 3.90 mg/kg arsenic screening criterion are as follows (Figure 7-10)."	Figure 7-5 indicates that the samples collected from igloo drains are discrete rather than composite soil samples. Resolve the discrepancy in the revised Report. In addition, the method used to collect composite samples is not described in the Report. Include the description in the revised Report.	Concur. Additional site characterization and sampling to address comments in the NMED disapproval letter (NMED, 2019) are being addressed in a separate RFI Work Plan for the igloos and revetments at FWDA. The Army submitted the Igloo Exteriors and Revetments RCRA Facility Investigation Sampling Work Plan to NMED on 20 July 2023. NMED disapproved the Work Plan on December 19, 2024. Recommended corrective measures will be addressed in a corrective measures work plan as needed following the completion of the RFI. This is addressed in Section 1.2 and Table 1.1 of the Supplemental RFI Work Plan.
53	**Section 7.5.1, Soil Characterization, Igloo Drains**	**lines 7-9, page 7-11**	"One composite soil sample (sample ID: 0628B-1074-SS-C-SO), collected from the 0-6 inch bgs depth interval, was in exceedance (3.9 mg/kg) of the 3.90 mg/kg screening criterion for arsenic."	According to Figure 7-10, *TAL Metals Arsenic and Lead Screening Criteria Exceedances, Igloos and Igloo Drains AOC 28* , the arsenic concentration in the soil sample is recorded as 4.2 mg/kg. Resolve the discrepancy in the revised Report.	Concur. The typographical error will be corrected in future documentation for AOC 28.
54	**Section 7.5.1, Soil Characterization, Igloo Drains**	**lines 13-15, page 7-11**	"One composite soil sample (sample ID: 0628B-1099-SS-C-SO), collected from the 0-6 inch bgs depth interval, was in exceedance (4.8 mg/kg) of the 3.90 mg/kg screening criterion for arsenic."	According to Figure 7-10, the arsenic concentration in the soil sample is recorded as 3.9 mg/kg. Resolve the discrepancy in the revised Report.	Concur. The typographical error will be corrected in future documentation for AOC 28.
55	**Section 7.5.1, Soil Characterization, Igloo Revetments**	**lines 2-4, page 7-13**	"Fifteen ISM soil samples collected from the igloo revetments yielding results in exceedance of the 3.90 mg/kg arsenic screening criterion are as follows (Figure 7-11)."	30 subsamples were collected for each ISM sample at the revetment according to Figure 7-6, *Proposed Multi-Incremental Subsampling Locations, Revetments, AOC 28* . The site concentrations recorded in Table 7-4 must be multiplied by the number of subsamples for comparison to the SSLs. See Comment 3. Revise the Report accordingly.	Concur. Additional site characterization and sampling to address comments in the NMED disapproval letter (NMED, 2019) are being addressed in a separate RFI Work Plan for the igloos and revetments at FWDA. The Army submitted the Igloo Exteriors and Revetments RCRA Facility Investigation Sampling Work Plan to NMED on 20 July 2023. NMED disapproved the Work Plan on December 19, 2024. Recommended corrective measures will be addressed in a corrective measures work plan as needed following the completion of the RFI. This is addressed in Section 1.2 and Table 1.1 of the Supplemental RFI Work Plan.
56	**Section 7.6.2, Conclusions and recommendations**	**line 23, page 7-15**	"These activities [associated with determination of future igloo use] occur external to NMED's RCRA authority."	Since AOC 28 is located within the RCRA permitted facility and the igloos are part of an AOC, the statement is not accurate. The Permittee must address the NMED's concerns regarding the future use of igloos.	Concur. Additional site characterization and sampling to address comments in the NMED disapproval letter (NMED, 2019) are being addressed in a separate RFI Work Plan for the igloos and revetments at FWDA. The Army submitted the Igloo Exteriors and Revetments RCRA Facility Investigation Sampling Work Plan to NMED on 20 July 2023. NMED disapproved the Work Plan on December 19, 2024. Recommended corrective measures will be addressed in a corrective measures work plan as needed following the completion of the RFI. This is addressed in Section 1.2 and Table 1.1 of the Supplemental RFI Work Plan.
57	**Section 8.1.4, Waste Characterization and Contaminants of Potential Concern**	**lines 22- 23, page 8-1**	"Ammunition was handled and temporarily stored at AOC 42; therefore, explosives and lead are considered the only COPCs."	The statement does not explain why lead is a contaminant of concern at AOC 42, but not other metals associated with munitions. Section 8.2.2 states that LBP is assumed to be present based on building construction dates. Include the explanation in this section of the revised Report. This comment also applies to other sections of the Report (e.g., Section 12,1.4), where applicable.	Concur. The Supplemental RFI Work Plan and subsequent RFI report will be new deliverables that are completely re-written and will provide clarification for this text.
58	**Section 8.3.3, Soil Sampling**	**lines 4-5, and 9-10, page 8-4**	"The ISM sample consisted of 10 increments... " and, "Lead was detected at a low concentration of 21 mg/kg. This concentration is below the NMED 2009 residential SSL for lead, which is 400 mg/kg."	The number of subsamples for the ISM sample was ten. Therefore, the lead concentration must be multiplied by ten to evaluate the risk associated with lead. Accordingly, a concentration of 210 mg/kg must be compared to the screening level of 400 mg/kg. The concentration is still below 400 mg/kg and the outcome of data interpretation will not change. However, the statement must be revised to incorporate appropriate interpretation of the ISM results. See Comment 3. This comment also applies to Section 9.3.4.1.	The following text has been included in Section 6.5 of the Supplemental RFI Work Plan: *"The RFI Report for Parcel 6 recommended no further action within AOC 42 – Building 516 for RCRA metals and explosives. However, to address Comments 58 and 59 of the disapproval letter (NMED, 2019), four discrete soil samples will be collected from within the AOC 42 ISM decision unit. Samples will be collected from 0 to 0.5 feet bgs (0642B-516-SS01-0.0-0.5D-SO and 0642B-516-SS02-0.0-0.5D-SO on Figure 6.3) and from 0.5 to 1.0 feet bgs (0642B-516-SS01-0.5-1.0D-SO and 0642B-516-SS02-0.5-1.0D-SO on Figure 6.3) and analyzed for RCRA metals (via SW6020B and 7471B) and explosives (via SW8330B)."*
59	**Section 8.5.1, Soil Characterization**	**lines 27-29, page 8-5**	"As summarized in Table 8-3, constituent concentrations in soil samples taken around AOC 42 did not exceed the NMED 2009 residential screening criteria for RCRA metals (EPA Methods 6010B and 7471A)."	The number of subsamples for the ISM sample was 30. Therefore, the site metals concentrations must be multiplied by 30 to evaluate the risk associated with each metal. See Comment 3. Revise the Report accordingly. This comment also applies to Section 9.5.1.	The following text has been included in Section 6.5 of the Supplemental RFI Work Plan: *"The RFI Report for Parcel 6 recommended no further action within AOC 42 – Building 516 for RCRA metals and explosives. However, to address Comments 58 and 59 of the disapproval letter (NMED, 2019), four discrete soil samples will be collected from within the AOC 42 ISM decision unit. Samples will be collected from 0 to 0.5 feet bgs (0642B-516-SS01-0.0-0.5D-SO and 0642B-516-SS02-0.0-0.5D-SO) and from 0.5 to 1.0 feet bgs (0642B-516-SS01-0.5-1.0D-SO and 0642B-516-SS02-0.5-1.0D-SO) and analyzed for RCRA metals (via SW6010B and Method 7471A) and explosives (via SW8330B)."*

NMED Comment #	Section	Line #/Page #	Permittee Statement	NMED Comment	Army Response
60	**Section 11.5, Evaluation of Current Investigation**	**lines 31-33, page 11-5**	"As summarized in Table 11-3, RCRA total metals (EPA methods 6010B/7471A) were not detected in concentrations exceeding the screening criteria with the exception of arsenic (Figure 11-5)."	The number of subsamples for the ISM sample was 50. Therefore, the site metals concentrations must be multiplied by 50 to evaluate the potential for hot spots associated with each metal. See Comment 3. Revise the Report accordingly. This comment also applies to Section 13.5.1.	The following text has been added to Section 7.5 of the Supplemental RFI Work Plan: *"The RFI Report for Parcel 6 recommended no further action within AOC 80 – Feature 9 for RCRA metals and explosives. However, to address Comment 60 of the disapproval letter (NMED, 2019), four discrete soil samples will be collected from within the each of the 24 AOC 80 ISM decision units. Samples will be collected from 0 to 0.5 feet bgs (0680-SS01-0.0-0.5D-SO through 0680-SS24-0.0-0.5D-SO on Figure 7.3) and from 0.5 to 1.0 feet bgs (0680-SS01-0.5-1.0D-SO through 0680-SS24-0.5-1.0D-SO on Figure 7.3) and analyzed for RCRA metals (via SW6020B and 7471B) and explosives (via SW8330B)."* The following text has been included in Section 9.5 of the Supplemental RFI Work Plan: *"The RFI Report for Parcel 6 recommended no further action within AOC 83 – Feature 22 for RCRA metals and explosives. However, to address Comment 60 of the disapproval letter (NMED, 2019), two discrete soil samples will be collected from within the each of the twelve AOC 83 ISM sample decision units. Samples will be collected from 0 to 0.5 feet bgs (0683-SS01-0.0-0.5D-SO through 0681-SS06-0.0-0.5D-SO on Figure 9.3) and from 0.5 to 1.0 feet bgs (0683-SS01-0.5-1.0D-SO through 0681-SS06-0.5-1.0D-SO on Figure 9.3) at each grid location and analyzed for RCRA metals (via SW6020B and 7471B) and explosives (via SW8330B)."*
61	**Section 12.3.3, Soil Sampling**	**lines 18-19, page 12-4**	"The ISM sampling locations are shown in Figure 12-2."	Figure 12-2 is not included in the Report. The Report includes two copies of Figure 12-1. Include Figure 12-2 and remove one copy of Figure 12-1 from the revised Report.	Concur. Corrected figures will be included in the RFI Report that will be submitted following implementation of the Supplemental RFI Work Plan, as appropriate.
62	**Section 12.4, Current Investigation (2011)**	**lines 10-11, page 12-5**	"Sample locations with associated sample identifiers are listed in Table 10-2."	Table 10-2 is not pertinent to AOC 81. Presumably, the referenced table is Table 12-2. Correct the reference in the revised Report. In addition, although Table 12-2 is appropriately titled as "Parcel 6 AOC 81, Sample Locations with Associated Sample Identifiers", the content of Table 12-2 does not provide any pertinent information. The content of Table 12-2 is identical to that of Table 12-1 which provides a summary of the release assessment laboratory data. Revise Table 12-2 to include pertinent information.	Concur. Corrected tables will be included in the RFI Report that will be submitted following implementation of the Supplemental RFI Work Plan, as appropriate.
63	**Section 12.5.1, Soil Characterization**	**lines 35-37, page 12-5**	"As summarized in Tables 12-2 and 12-3, neither explosives (EPA Method 8330B), nor RCRA metals (EPA Methods 6010B and 7471A) were detected above screening values."	Table 12-3 provides the 2011 analytical results for metals. However, a table that provides the 2011 analytical results for explosive compounds is not included in the Report. If explosive compounds were detected below the applicable screening levels during the 2011 investigation, include the table summarizing the results of explosive compound analysis in the revised Report. In addition, the number of subsamples for the ISM sample was 50. Therefore, the site concentrations must be multiplied by 50 for comparison to the SSLs associated with the detected constituents. See Comment 3. Revise the Report accordingly.	Concur. Explosives were not detected in the 2011 samples. Referenced table numbers will be revised in the RFI Report that will be submitted following implementation of the Supplemental RFI Work Plan. The following text has been included in Section 8.5 of the Supplemental RFI Work Plan: *"In accordance with NMED policy, ISM samples are to be used for screening-level decisions only. Therefore, to address Comment 63 of the disapproval letter (NMED, 2019), in order to make compliance decisions, one discrete soil sample will be collected from two different depths at each sample location within each of the three AOC 81 ISM sample decision units, with sample locations biased toward area(s) where surface soil is stained, vegetation is stressed, and/or rainwater potentially accumulates (i.e., low elevation spots), as applicable... Therefore, discrete samples will be collected from the center of each decision unit identified for sampling in the initial RFI effort. Samples will be collected from 0 to 0.5 feet bgs (0681-SS01-0.0-0.5D-SO through 0681-SS03-0.0-0.5D-SO on Figure 8.3) and from 0.5 to 1.0 feet bgs (0681-SS01-0.5-1.0D-SO through 0681-SS03-0.5-1.0D-SO on Figure 8.3) at each grid location and analyzed for RCRA metals (via SW6020B and 7471B), explosives (via SW8330B), and dioxins/furans (via SW8290)."*
64	**Section 13.1.1, Location, Description, and Operational History**	**lines 4-5, page 13-1**	"Area of Concern 83 is located in the west-central portion of Parcel 6, as shown.in Figure 13-1."	Figure 13-1 is not included in the Report. Include the figure in the revised Report.	Concur. Corrected figures will be included in the RFI Report that will be submitted following implementation of the Supplemental RFI Work Plan, as appropriate.
65	**Section 14.4, Current Investigation (2011)**	**lines 12-13, page 14-5**	"Sampling was conducted in accordance with the approved Work Plan (CH2M Hill, 2011) and Section 2.5 of this report."	Although the Permittee states that sampling was conducted in accordance with the approved work plan, the ISM sampling procedure referenced in EPA Method 8330B was not followed. For example, the method states, "[t]o establish the sampling uncertainty for estimating mean concentrations of energetic material residues, triplicate multi-incremental samples should be collected... " The Permittees did not collect triplicate samples. The data collected from ISM samples can only be used for screening purposes (e.g., to determine hot spots) as stated by multiple comments previously provided by NMED. The ISM data cannot be used for compliance purposes. NMED cannot accept conclusions and recommendations that were drawn from the ISM data where the Permittee did not appropriately follow Method 8330B. This comment applies to all sections where ISM samples were used. See Comment 3.	Concur. The following text has been included in Section 10.5 of the Supplemental RFI Work Plan: *"In accordance with NMED policy, ISM samples are to be used for screening-level decisions only. Therefore, to address Comment 65 of the disapproval letter (NMED, 2019), in order to make compliance decisions, one discrete soil sample will be collected from two different depths from each of the eight AOC 84 ISM decision units sampled during the RFI in 2011, as well as the four ISM units corresponding to the third ISM grid sampled during the release assessment investigation in 2008 (USACE, 2011 [Figure 18-4]) but omitted during the RFI due to lack of explosives detections. Sample locations will be biased toward area(s) where surface soil is stained, vegetation is stressed, and/or rainwater potentially accumulates (i.e., low elevation spots), as applicable. As described in Sections 10.2.2.2 through 10.2.2.4, the ISM grid locations were originally chosen based on site reconnaissance findings, release assessment sample results, and additional ISM samples added at the request of NMED (2010a). Therefore, discrete samples will be collected from each decision unit identified for sampling in the approved RFI Work Plan (USACE, 2011) and the 2008 release assessment. Samples will be collected from 0 to 0.5 ft bgs (0684-SS01-0.0-0.5D-SO through 0684-SS12-0.0-0.5D-SO on Figure 10.3) and from 0.5 to 1.0 ft bgs (0684-SS01-0.5-1.0D-SO through 0684-SS12-0.5-1.0D-SO on Figure 10.3) at each grid location and analyzed for RCRA metals (via SW6020B and 7471B) and explosives (via SW8330B)."*
66	**Table 4-1, Summary of reportable Concentrations for Soil Analyses Completed at SWMU 8, Building 537**	**(Page 14 of 17), page 4-25**	N/A	The table notes that the concentrations exceeding SSLs are bold and positive detections of organic compounds are shaded. The Aroclor 1260 concentration in soil sample B537TK081 exceeded the SSL. Accordingly, the concentration is shown with bold font; however, it is not shaded. Since Aroclor 1260 is an organic compound, the concentration should be shaded. Correct the table in the revised Report, as necessary.	Concur. Corrected tables will be included in the RFI Report that will be submitted following implementation of the Supplemental RFI Work Plan, as appropriate.
67	**Table 4-5, Parcel 6 SWMU 8, Method 8270C Semi-Volatile Organic Compounds Soil Investigation Detected Constituents**	**page 4-34**	N/A	The table presents analytical results for total petroleum hydrocarbon oil range organics, rather than semi-volatile organic compounds as titled. Correct the title in the revised Report.	Concur. Corrected tables will be included in the RFI Report that will be submitted following implementation of the Supplemental RFI Work Plan.
68	**Table 4-7, Parcel 6 SWMU 8, Method 8015M Oil Range Organics Soil Investigation Detected Constituents**	**page 4-38**	N/A	The table presents analytical results for polychlorinated biphenyls, rather than oil range organics as titled. Correct the title in the revised Report.	Concur. Corrected tables will be included in the RFI Report that will be submitted following implementation of the Supplemental RFI Work Plan.

Army Response to NMED Disapproval Letter (dated June 4, 2019) on the Final RCRA Facility Investigation Report, Parcel 6, Revision 1.0 dated March 29, 2019

NMED Comment #	Section	Line #/Page #	Permittee Statement	NMED Comment	Army Response
69	**Table 4-8, Parcel 6 SWMU 8, Method 8081A Pesticides Soil Investigation Detected Constituents**	**page 4-40**	N/A	The table presents analytical results for metals, rather than pesticides as titled. Correct the title in the revised Report.	Concur. Corrected tables will be included in the RFI Report that will be submitted following implementation of the Supplemental RFI Work Plan.
70	**Table 7-5, Parcel 6 SWMU 8, Method 8330B Explosives Soil Investigation Detected Constituents**	**page 7-83**	N/A	The sample identification nomenclature does not provide a definition for "C" and "M". Revise the table to include the definitions. This comment also applies to all other tables, where applicable (e.g., Table 8-3).	Concur. Corrected tables will be included in the RFI Report that will be submitted following implementation of the Supplemental RFI Work Plan.
71	**Figure 5-5, Soil Sample Locations, SWMU 11**	**page 5-49**	N/A	Surface soil samples were not collected at borings SB01, SB02, SB03, and SB04. These borings were installed to assess whether potential discharges from loading/unloading or wash-down practices resulted in releases to the environment. Surface soils were likely affected by the operations. Provide a justification for not collecting surface soil samples at the locations in the revised Report. The Permittee may be required to collect the surface samples at these locations during future investigation efforts.	Concur. The following text has been included in Section 4.5 of the Supplemental RFI Work Plan: "*To address Comment 71 of the disapproval letter (NMED, 2019), one soil sample will be collected at the locations of borings 0611B542-SB01 through 0611B542-SB04 along the east loading dock. Samples will be collected from 0.0 to 1.0 feet bgs (0611B542-SB01-0.0-1.0D-SO through 0611B542-SB04-0.0-1.0D-SO on Figure 4.3) at each location and analyzed for VOCs (via SW8260D), SVOCs (via SW8270E), PAHs (SW8270E-SIM), RCRA metals (via SW6010B and 7471A), TPH-DRO (via SW8015D), explosives (via SW8330B), and perchlorate (via SW6850)*"
72	**Figure 7-6, Proposed Multi-Incremental Subsampling Locations, Revetments, AOC 28**	**page 7-89**	N/A	The figure depicts an igloo and igloo apron rather than a revetment. Revise the figure.	Concur. Additional site characterization and sampling to address comments in the NMED disapproval letter (NMED, 2019) are being addressed in a separate RFI Work Plan for the igloos and revetments at FWDA. The Army submitted the Igloo Exteriors and Revetments RCRA Facility Investigation Sampling Work Plan to NMED on 20 July 2023. NMED disapproved the Work Plan on December 19, 2024. Recommended corrective measures will be addressed in a corrective measures work plan as needed following the completion of the RFI. This is addressed in Section 1.2 and Table 1.1 of the Supplemental RFI Work Plan.
73	**Figure 12-3, Proposed Sampling Locations, AOC 81**	**page 12-13**	N/A	Figure 12-3 identifies the location of AOCs 28 and 84; however, the location of AOC 81 is not identified. Identify the location of AOC 81 in the revised figure.	Concur. Revised figures will be included in the forthcoming RFI Report that will be submitted following implementation of the Supplemental RFI Work Plan.
74	**Photographs, Photos 5-13 and 5-14, SWMU 11**	**page 5-57**	N/A	The description for the photographs indicates that soil boring [SB]03 hit an old unmarked water pipe. Boring SB03 was advanced west of the sanitary sewer line according to Figure 5-3; however, the pipeline identified during the advancement of boring SB03 is not shown on the figure. Revise the figure to depict the pipeline. Additionally, it is not clear what depth the boring hit the pipeline, whether the pipeline was removed, the pipeline use, or whether the released water contained any contaminants. Provide a detailed discussion of the incident in the revised Report.	Concur. The water pipe will be shown on the revised figure in the forthcoming RFI Report, and a discussion of the incident will also be included.
75	**Appendix A, Responses to Regulatory Agency Comments**	N/A	N/A	The Permittee includes the March 21, 2018 letter requesting an extension from March 31, 2018 to March 31, 2019 in Appendix A; however, NMED's correspondence to the Permittee's extension request is not included. Since the Report was submitted on March 25, 2019, presumably there is a record for approving the extension request. Provide the missing correspondence documents in the revised Report.	Concur. The approval letter for Second Extension Request, Final RCRA Facility Investigation Report Parcel 6, Fort Wingate Depot Activity, McKinley County, New Mexico, dated April 3, 2018 is included in Appendix A of the Supplemental RFI Work Plan.

COMMENTS FROM THE DISAPPROVAL LETTER ON THE FINAL PERMITTEE-INITIATED INTERIM MEASURES REPORT, PARCEL 6, REVISION 1, DATED NOVERMBER 7, 2018

The NMED comments on the *Final Permittee-Initiated Interim Measures (PIIM) Report, Parcel 6, Revision 1.0* (AMEC, 2018) from the disapproval letter issued by NMED on November 7, 2018 are applicable to the Supplemental RFI Work Plan for Parcel 6.

1	**Response to NMED's August 21, 2017 Disapproval Comment 2**	N/A	"The removal action at SWMU 8 occurred in 4 separate phases. One waste profile sample was collected following the initial removal on 10/20/15; 2 samples were collected on 12/08/15; a 4th sample was collected on 5/12/16; and a fifth sample was collected on January 18, 2018." and, "The text was revised to reflect that 5 waste profile samples were collected [in Section 5.3]."	In Section 5.3, Waste Profile Sampling and Disposal, lines 22-24, page 5-2, the Permittee states, "[c]opies of waste profile laboratory report summary and waste manifests and landfill weigh tickets are included in Appendix G." Appendix G notes, "[d]ue to the excessive number of scanned pages, this appendix has not been tagged for accessibility." The information presented in Appendix G is not organized in a reviewable manner. Provide a table summarizing the analytical results for all waste profile samples collected for Solid Waste Management Unit (SWMU) 8 in the revised Report. In addition, all appendices must be organized reviewable manner for readers (e.g., table of contents) and include bookmarks in the electronic version.	Concur. The PIIM Report, Revision 1 has been withdrawn by the Army. PIIM data will be presented in the RFI Report. A table summarizing the analytical results for all waste profile samples collected for SWMU 8 (0608B537WP-0.0-0.5C-SO, 0608B537WPA-0.0-0.5C-SO, 0608B537WPB-0.0-0.5C-SO, BLDG537, and 0608B537WPC-0.0-0.5C-SO) will be provided in an appendix for waste disposal documentation in the RFI Report. Appendices in future submittals will be organized and include bookmarks in the electronic versions.
2	**Responses to NMED's August 21, 2017 Disapproval Comments 4 and 6**	N/A	"In cases where it is not possible to meet sensitivity criteria the laboratory will be instructed to inform the Anny prior to completing a work plan."	Comment 2 in NMED's Approval with Modifications for Final 2017 Interim Facility-wide Groundwater Monitoring Plan, Version 10 Revision 1, dated October 22, 2018, provides further instruction regarding the issue. No response is required.	Comment acknowledged.
3	**Sampling Result Tables**	N/A	N/A	Tables 5-1A, 5-1B, 6-1A, 6-1B, and others list all analytes for all analytical methods applied to the samples. This is a departure from the standard practice of presenting data in tables based on the analytical group (e.g., a table for VOCs, a table for SVOCs, a table for metals, etc.). Presenting data for all analytes in one table increases review time for a document based on the difficulty of finding a specific analyte for a specific sample in a single 320-page table that spans two volumes (Table 6-1B). Revise the Report to present data in tables specific to analyte groups as has been performed in the past. This applies to all tables where data is presented in this and all future documents.	Concur. The analytical results will be presented in tables specific to analyte groups for future submittals. Appendix B of the Supplemental RFI Work Plan provides detected results in tables divided by analytical method.
4	**Electronic Database**	N/A	N/A	The Permittee failed to submit an electronic database that includes all historical data for Parcel 6 in the Report, which has been provided historically. The document cannot be fully reviewed without the electronic database. For all documents that include analytical data, the Permittee must include a searchable electronic file with all historical data included in a format acceptable to NMED. Provide the searchable electronic data in the revised Report.	Concur. Historical data collected since March 30, 2011 (per Comment 9 of the June 4, 2019 Disapproval Final RFI Report Parcel 6 Revision 1.0) will be provided in a searchable electronic format, if available. The initial RFI and PIIM data are included with the Supplemental RFI Work Plan in a separate electronic database. Data collected as part of the Supplemental RFI Work Plan will be included in the RFI Report in a searchable electronic format.
5	**Analytical Laboratory Reports**	N/A	N/A	The Report includes Level IV reports from the analytical laboratories. This has resulted in over 18,000 pages of laboratory reports for this Report. This level of reporting is rarely needed and cumbersome. NMED requests that only Level II analytical laboratory reports be included with all submittals. Revise the Report by substituting the Level II reports for the Level IV analytical reports. In addition, for large appendices such as the 12,228-page Appendix J where multiple analytical and quality assurance/quality control reports are included, the Permittee must include descriptive bookmarks indicating where each new report begins.	Concur. Only Stage 2 analytical reports will be included in future submittals of newly collected Supplemental RFI data. In addition, where multiple analytical and quality assurance/quality control reports are included, the Army will include descriptive bookmarks indicating where each new report begins. The native analytical table will reference the Sample Delivery Group (SDG) referenced in the laboratory report. Please note if Stage 2 laboratory reports are not available for the initial RFI or PIIM data, then Stage 4 laboratory reports will be included.
6	**Sample to Analytical Laboratory Report Link**	N/A	N/A	The Permittee provided large quantities of data with no indication where to locate a specific sample within a specific analytical laboratory report. For this document alone, the Permittee provided over 18,000 pages of analytical laboratory reports with no indication of where a specific sample can be located. For every document that includes analytical data, provide a link for each specific sample to a specific lab report filename (if multiple files are provided) or to a page number in the appendix where the specific lab report can be found (if multiple lab reports are combined into one large file). For Appendices C and F, the lab reports are indexed by lab report number. The Permittee must provide a link to the lab report number for each analyte. For Appendix J, no indexing is provided and multiple laboratory reports are combined. The Permittee must either provide indexing for each report and indicate which particular report contains a particular sample, or provide specific page numbers for each sample ID that indicates where the sample can be found in the lab reports. This information can be provided either in a new table or in the analytical data electronic database.	Concur. The initial RFI and PIIM database is provided electronically with the Supplemental Work Plan. The database contains a column for "lab_sample_id" which should be used to cross-reference a particular sample within the lab reports by searching for it. Analytical data in the new RFI Report will be provided as Level II data in digital format with searchable electronic data tables.

Army Response to NMED Disapproval Letter (dated June 4, 2019) on the Final RCRA Facility Investigation Report, Parcel 6, Revision 1.0 dated March 29, 2019

NMED Comment #	Section	Line #/Page #	Permittee Statement	NMED Comment	Army Response
7	**Section 2.2, Remediation Goals and Section 2.2.1, Human Health Screening Levels and Risk Evaluation Approach**	**lines 7-13, and, lines 30-33, page 2-2**	"The risk evaluation inititally [sic] presented in the October 2016 PIIM Report used the July 2015 NMED risk guidance because the risk evaluation started in 2016 prior to NMED issuing the March 2017 (Revised) edition of the its risk guidance. This PIIM report retains use of the 2015 NMED SSLs and 2015 USEPA RSLs, as allowed by NMED consistent with Comment 4 on the Final RCRA Facility Investigation Report for Parcel 7 (NMED, 2017a) that states, "If the risk assessment is already in progress (e.g., started or being revised through comments), NMED allows the older version of the guidance to be followed.", and "The screening levels used in the human health risk evaluation were those appropriate for evaluating residential receptors exposed to COPCs in soil through the direct contact pathway and the soil to groundwater pathway, and that were in effect at the time the original risk evaluation was submitted to NMED (October 2016).	The Permittee used a statement taken out of context from NMED comments on another Parcel's investigation report to justify use of the 2015 risk guidance. The Permittee failed to include that field work continued to be conducted through 2018 for this investigation. In addition, while the initial risk evaluation was submitted in 2016, the Permittee had not completed the scope of the investigation as approved by NMED; therefore, risk evaluation at that time was not appropriate. NMED's policy is that the risk assessment guidance that is in effect when the field work is completed is the appropriate guidance to follow. Therefore, the Permittee must reevaluate the risk related to Parcel 6 based on NMED' s March 2017 Risk Assessment Guidance for Site Investigations and Remediations (Guidance). Revise the Report to include risk assessment based on the appropriate guidance.	Concur. The forthcoming RFI Report will be a new deliverable that is completely re-written. The RFI Report will include a new Risk Assessment that will follow the most recent guidance (NMED, 2022), as described in Section 12.0 of the Supplemental RFI Work Plan. Should updated risk assessment guidance become available when the field work is complete, the updated guidance will be followed.
8	**Section 4.5, Confirmation Sampling Results**	**lines 14-15, page 4-2**	"Based on the confirmation sampling, soil removal for lead in AOC 28 -Igloo Block B is considered complete."	NMED does not agree with this statement. The Permittee has been directed through comments in multiple documents that direct comparison of multiincremental (MI) samples to SSLs is not appropriate for compliance purposes. Disregarding NMED's comments without adequate justification constitutes non-compliance. Further characterization is required at multiple apron sites where MI sample concentrations exceeded the background concentration for lead and multiplication of the sample concentration by the number of subsamples results in exceedance of the SSL. A preliminary review of the data indicates that 55 MI samples from decision units in Igloo Block B fit the criteria above and require further characterization. Review the data for the aprons and propose to submit a Phase 2 interim measures work plan that proposes to further subdivide the decision units for collection of MI samples or collect discrete samples where further characterization is warranted in the revised Report.	Clarification. AOC 23, Igloo Block B is being addressed in the Final Revision 1, Igloo Exteriors and Revetments, RCRA Facility Investigation Sampling Work Plan, 12 December, 2025, which has been approved with modifications by NMED.
9	**Section 4.8.3, Background Threshold Values**	**lines 32-33, page 4-7**	"However, an evaluation of metals background may not be conducted if a cumulative risk evaluation is not required because only one analyte is detected."	The statement is not correct. Regardless of the number of contaminants of potential concern (COPCs), it is acceptable to screen out site concentrations as being within background levels. If the site metal concentrations were within background levels, eliminating all COPCs, no risk assessment would be required. For Area of Concern (AOC) 28, because the background reference value for lead (12.4 milligrams per kilogram, mg/kg) is significantly below the direct contact residential soil screening levels (SSLs) (400 mg/kg residential and 800 mg/kg industrial/construction), retention and/or elimination of lead as a COPC through site attribution analysis does not impact the conclusions for this site. Revise the Report accordingly.	Concur. The forthcoming RFI Report will be a new deliverable that is completely re-written. The RFI Report will include a new Risk Assessment that will follow the most recent guidance (NMED, 2022), as described in Section 12.0 of the Supplemental RFI Work Plan. As detailed in Section 12.1.5.2, if the maximum detected concertation of metal COPCs is greater than the FWDA BTV, then statistical evaluation of site metals concentrations compared to FWDA background metals concentrations will be conducted.
10	**Section 4.8.9, Risk Evaluation Results - Human Health**	**lines 17-18, page 4-9**	"The results of the risk screening are illustrated in Table 4-1. All lead results were below the screening level."	The evaluation of the data for AOC 28 does not include an evaluation of the soil-to-groundwater pathway. All of the data provided in Table 4-1 that are not reflective of background levels exceed the lead soil-to-groundwater screening level based on a dilution attenuation factor (DAF) of 20. However, given the site history, small areas of impact and comparison to background levels, it is unlikely that impact to groundwater has occurred. Revise the Report to address the soil-to-groundwater pathway and provide lines of evidence to demonstrate why it is incomplete in the revised Report.	Concur. The forthcoming RFI Report will be a new deliverable that is completely re-written. The RFI Report will include a new Risk Assessment that will follow the most recent guidance (NMED, 2022), as described in Section 12.0 of the Supplemental RFI Work Plan. As described in Section 12.1.5.4, the migration to groundwater evaluation will be conducted separately from the cumulative risk assessment.
11	**Section 5.1, Previous Investigations**	**lines 8-9, page 5-1**	"Former Building 537 was also used to store containers of pesticides and was demolished in 2010."	An inspection for asbestos-containing materials (ACM) must be conducted during the investigation in accordance with Permit Section VIII.A.1.e. If ACM is found, the soil must be analyzed for the presence of asbestos. Propose to submit a phase 2 interim measures work plan to evaluate for the presence of ACM in SWMU 8 in the revised Report.	Comment Acknowledged. An asbestos survey was completed on November 7-8, 2019, for Parcel 6 by an accredited asbestos building inspector with an unexpired license and submitted to NMED for review on February 7, 2020, in the Final Asbestos Survey Report, Parcel 2, 6, 7, 13, 16, 19, 20, 22, & 23, Fort Wingate Depot Activity, Gallup, New Mexico (USACE, 2020). However, it is unclear if the vicinity of former Building 537 was visually inspected for ACM. Field teams will be briefed on the findings of the ACM survey prior to initiating fieldwork as described in Section 11.2 of the Supplemental RFI Work Plan.
12	**Section 5.4, Confirmation Sampling**	**lines 8-9 and 14-15, page 5-4**	"[The analytical results indicated that COPC concentrations exceeded the screening levels in] one sample from Area B (0608B537BEC-0.0-0.5D-SO) [in SWMU 8]," and, "One discrete bottom sample (0608B537BEC-1.0-1.5D-SO) was collected from Area B."	The second confirmation sample was designated as 0608B537BEC-2.0-2.5D-SO in Table 5-1B, SWMU 8 - Former Building 537 Excavation Confirmation Sampling Results (all results). Correct the discrepancy in the revised Report.	Concur. This sample ID has been corrected in the Supplemental RFI WP; see Figure 3.2 and Table B.3-9.
13	**Section 5.6.2.8.2, Initial Cumulative Risk Evaluation, Residential Receptors (Area A through E)**	**lines 10-12, page 5-15**	"The results of the cumulative evaluation for the direct contact pathway are presented in Table 5-3A, and indicate the estimated cancer risk of $1.5x10^{-5}$ is greater than the NMED target risk threshold of $1.5x10^{-5}$."	The 2015 NMED Soil Screening Levels were applied. If the 2017 NMED Soil Screening Levels had been applied, it is likely the initial screen would have met target risk levels. Although the refined risk assessment, using the 95% upper confidence level of the mean, resulted in acceptable risk levels, use of the current screening levels would have resulted in less cumbersome assessments with less refinement and justification needed to address uncertainties. Revise the Report to use the 2017 SSLs.	Concur. The forthcoming RFI Report will be a new deliverable that is completely re-written. The RFI Report will include a new Risk Assessment that will follow the most recent guidance (NMED, 2022), as described in Section 12.0 of the Supplemental RFI Work Plan. Should updated risk assessment guidance become available when the field work is complete, the updated guidance will be followed.
14	**Table 5-2, Quantitation Limits Compared to Human Health Soil Screening Levels - Direct Contact and Table 5-5, SWMU 9 - POL Discharge Area - Quantitation Limits Compared to Ecological Screening**	**p 5-T137 and p 5-T145, etc.**	N/A	According to Tables 5-2 and 5-5, there were multiple analytes with quantitation limits that exceeded the residential and ecological soil screening levels. Quantitation limits that exceed screening levels make it impossible for the Permittee to demonstrate, or for NMED to defend, that contamination is not present at unacceptable concentrations at the facility. The Permittee must make a concerted effort to identify analytical laboratories that can achieve appropriate quantitation limits that are below the screening levels. Revise the Report to discuss efforts to achieve appropriate quantitation limits as detailed above.	Concur. A new analytical laboratory has been selected to help minimize analytes with quantitation limits that exceed screening levels. A comparison of the applicable screening levels to laboratory quantitation limits is provided in this Supplemental RFI Work Plan for Parcel 6, see Table 11.7 for soil. Table 11.8 (soil) includes evaluations of those analytes whose limit of quantitation exceed the applicable screening level.
15	**Section 6.4, Confirmation Sampling**	**lines 33-38, page 6-2 and line 1, page 6-3**	"The analytical results indicated that COPC concentrations exceeded the NMED direct contact [soil screening levels] SSLs in two samples from Area A (4AEC05-0.0-0.5D-SO and 4AEC08-0.0-0.5D-SO) and in one sample from Area B (4BEC03-0.0-0.5D-SO). Additional soil was removed from Areas A and B and three new confirmation samples were collected on March 7, 2016 (4AEC05-1.0 1.5D-SO, 4AEC08-1.0-1.5D-SO, and 4BEC03-1.0-1.5D-SO). The analytical results from the three new confirmation samples indicated that COPC concentrations were below the NMED direct contact SSL."	The Permittee returned to the field during 2017 and 2018 to collect samples required by the NMED-approved work plan that were omitted during the initial field work. Three of the collected samples from SWMU 20, Feature 4 exceeded the SSLs for SVOCs, yet discussion of these results was not provided in the text. Table 6-1 A, Excavation Confirmation Sampling Results (detections only) and Figure 6-3, Exceedance Area Map, Human Receptors, indicate that the concentrations of COPCs exceeded the applicable screening levels in the soil samples collected from 4AEC-05D-SO, 4BEC-03D-SO, and 4BEC-28D-SO. The soils that contain these exceedances are still present. The Permittee must propose to collect step-out and deeper samples to define the extent of contamination, remove the soils where the exceedances are detected, and conduct confirmation sampling after removal of the contaminated soils. Use of the 2017 Guidance, which increased the direct contact SSL concentration for benzo(a)pyrene, results in only one exceedance versus three. Propose to submit a phase 2 interim measures work plan to define and remediate the SVOC contamination at this location in the revised Report.	Concur. The following text is included in Section 5.5 of the Supplemental RFI Work Plan: *"To address Comment 15 of the disapproval letter (NMED, 2018) on the 2018 PIIM Report (AMEC, 2018), and to define the vertical and lateral extent of PAH contamination at PIIM confirmation sample location 0620F4AEC-05D-SO, the Army proposes to collect an additional sample at the location of the previous sample location from a depth of 0.5 to 1.0 ft bgs 0620F4-SB01-0.5-1.0D-SO on Figure 5.5) and step-out samples at a location 10.0 feet west of the original sample at a depths of 0.0 to 0.5 and 0.5 to 1.0 ft bgs (0620F4-SB02-0.0-0.5D-SO and 0620F4-SB02-0.5-1.0D-SO on Figure 5.5) to be analyzed for PAHs (via SW8270 SIM) and explosives (via SW8330B)."*

Army Response to NMED Disapproval Letter (dated June 4, 2019) on the Final RCRA Facility Investigation Report, Parcel 6, Revision 1.0 dated March 29, 2019

NMED Comment #	Section	Line #/Page #	Permittee Statement	NMED Comment	Army Response
16	**Section 6.6.2.5, Screening Levels**	**lines 30-33, page 6-9**	"Direct contact pathway - SSLs for residential receptors and construction workers identified in NMED risk guidance (NMED, 2015b) were considered in the human health risk evaluation, with the exception of arsenic in soil where NMED is allowing use of the site-specific background level of 5.6 mg/kg in lieu of the NMED screening level."	The site-specific background level of 5.6 mg/kg was used to screen arsenic as a potential COPC and for assessing site risk. The agreement with NMED to use 5.6 mg/kg for screening purposes was based on the fact that at the time of this agreement, the SSL for arsenic was below the background level. However, the 2017 SSL for arsenic is 7.07 mg/kg (residential). The current SSL for arsenic must be used for estimating risk, to avoid an overly conservative evaluation for arsenic. Revise the Report to include risk assessment evaluation based on the March 2017 Guidance.	Concur. As shown in Table 11.4 of the Supplemental RFI Work Plan, the arsenic SSL selected for the Parcel 6 human health risk assessment is 7.07 mg/kg. The forthcoming RFI Report will be a new deliverable that is completely re-written. The RFI Report will include a new Risk Assessment that will follow the most recent guidance (NMED, 2022), as described in Section 12.0 of the Supplemental RFI Work Plan.
17	**Section 6.6.2.7, Risk Evaluation Approach, Step 1**	**lines 17-22, page 6-11**	"Metals with maximum concentrations greater than the site-specific background level were further evaluated by comparing the maximum detected concentration in the sample set to the maximum detected concentration in the background data set. Metals with maximum concentrations from the sample set that are at or below the maximum concentration from the background data set are not considered site-related and are eliminated from further evaluation."	The comparison of site data to a background range is only applicable for arsenic. According to Section 2.7.3 of the 2015 NMED Guidance, if the maximum detected concentration is greater than the background reference value, a statistical evaluation is required to determine if the data are statistically different. Further, as noted in Section 2.8.3.3 of the 2017 NMED Guidance, a "simple comparison to a range of data or quartiles are not acceptable lines of evidence" to drop a constituent from the risk assessment. Remove the statement from the Report and revise the risk assessment tables and discussions accordingly.	Concur. The forthcoming RFI Report will be a new deliverable that is completely re-written. The RFI Report will include a new Risk Assessment that will follow the most recent guidance (NMED, 2022), as described in Section 12.0 of the Supplemental RFI Work Plan. As detailed in Section 12.1.5.2, if the maximum detected concertation of metal COPCs is greater than the FWDA BTV, then statistical evaluation of site metals concentrations compared to FWDA background metals concentrations will be conducted.
18	**Section 6.6.2.8.3, Initial Cumulative Risk Evaluation**	**lines 26-28, page 6-13**	"The initial cumulative risk evaluation considered six metals, two pesticides (4,4'-DDE and 4,4'-DDT), three PCBs (Aroclors 1254, 1260, and 1268), five VOCs, and 14 PAHs."	Five volatile organic compounds (VOCs) were retained as COPCs for the human health risk assessments. However, an evaluation of the vapor intrusion pathway has not been provided. Section 2.5.2 of the 2015 NMED Guidance (and Section 2.5.2 of the 2017 NMED Guidance) outlines the tiered approach for the evaluation of the vapor intrusion pathway. Since VOCs were detected, the vapor intrusion pathway is at least potentially complete and requires a qualitative discussion. If the pathway is complete according to the guidance, a quantitative assessment conducted in accordance with the methodology outlined in Section 2.5.2 of the 2017 NMED Guidance, is required. Revise the Report to address vapor intrusion.	Concur. The forthcoming RFI Report will be a new deliverable that is completely re-written. The RFI Report will include a new Risk Assessment that will follow the most recent guidance (NMED, 2022), and will evaluate vapor intrusion as described in Section 12.1.3.3 of the Supplemental RFI Work Plan.
19	**Section 6.6.2.8.3, Initial Cumulative Risk Evaluation, Soil to Groundwater Pathway**	**lines 24-29, page 6-14**	"The results of the initial cumulative risk evaluation for the soil to groundwater pathway are presented in Table 6-4C and indicate that the estimated total cancer risk of $1.5x10^{-4}$ is greater than the NMED target risk threshold of $1.5x10^{-5}$. PAHs contribute the majority of the risk with benzo(a)pyrene contributing the greatest percent of risk from PAHs. Further evaluation of potential cancer risks was warranted and a refined cumulative risk evaluation was conducted."	For the soil-to-groundwater screening analyses, risks were calculated using constituent-specific concentrations in the subsurface and the generic soil-to groundwater SSLs for a dilution attenuation factor DAF of 20 taken from the 2015 NMED Soil Screening Guidance. The generic soil-to-groundwater SSLs address the potential leaching of contaminants from the vadose zone to groundwater and incorporate chemical and physical properties of the constituents. The soil-to-groundwater SSLs are not truly risk-based numbers and as such, estimations of risk should not be conducted nor be included in cumulative risk/hazard estimates; therefore, comparison to target risk levels is not applicable to the soil-to-groundwater pathway. Rather than estimating risk, soil contaminant concentrations must be compared directly to the soil-to-groundwater screening levels to determine if the subsurface soil contamination has the potential to act as a source of contamination for groundwater. If the site concentration is greater than the appropriate soil-to-groundwater SSL, additional investigation is necessary to evaluate potential leaching and migration to groundwater in excess of NMED groundwater protection criteria. Refinements of the soil-to-groundwater pathway do not include evaluation on a target organ-specific basis; again, the soil-to-groundwater SSLs are not evaluated as risk-based numbers and comparison of risk by target organ is inappropriate. Section 4.3 of the 2017 NMED Guidance allows the use of the least conservative SSL for the initial SSL evaluation (this may be based on a water quality parameter, a contaminant limit or drinking water standard). Revise all text and associated tables in the Report, removing all estimates of risk/hazard for the soil-to-groundwater pathway. In addition, revise the discussion of the soil-to-groundwater screening in tenns of point comparisons and the identification of constituents that exceed the corresponding SSLs. Where soil-to-groundwater SSLs are exceeded, additional evaluation following Section 4.3 of the 2017 NMED Guidance is required.	Concur. The forthcoming RFI Report will be a new deliverable that is completely re-written. The RFI Report will include a new Risk Assessment that will follow the most recent guidance (currently 2022), as described in Section 12.0 of the Supplemental RFI Work Plan. Estimations of risk for soil-to groundwater will not be calculated.
20	**Table 6-3, Metals Background Evaluation**	**page 1 of 1**	N/A	Barium was detected above the background reference value. As such, it should have been retained as a COPC. The only metal where comparison to a range of background is acceptable is arsenic. Revise the table (and the risk in Table 6-4A) to include barium as a COPC in the revised Report. It is noted that inclusion of barium will not significantly change the estimated hazard index.	Concur. The forthcoming RFI Report will be a new deliverable that is completely re-written. The RFI Report will include a new Risk Assessment that will follow the most recent guidance (currently 2022), as described in Section 12.0. The maximum detected concentrations of detected metals will be compared to FWDA BTVs. Metal COPCs greater than BTVs will be evaluated statistically as detailed in Section 12.1.5.2 of the Supplemental RFI Work Plan.
21	**Table 6-5A, Cumulative Risk/Hazards Calculations for Detected Analytes**	**page 1 of 1**	N/A	The total cancer risk (1.3E-05) when using the refined exposure point concentrations (95% upper confidence level of the mean) slightly exceeds the target risk level of 1E-05. The primary driver is polycyclic aromatic hydrocarbons (PAHs). Note that PAH risks are based on outdated toxicity. The three PAHs with the highest level of contribution to total risk are benzo(a)pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene. Based on the 2015 SSLs, the risk resulting from these three PAHs is 1.11E-05. However, if the 2017 SSLs are applied, the cumulative risk due to these three PAHs drops to 6.8E-06. It is likely that use of the 2017 NMED SSLs will show acceptable cancer risk for the residential receptor at SWMU 20. Reevaluate the cancer risk using the 2017 NMED SSLs in the revised Report.	Concur. The forthcoming RFI Report will be a new deliverable that is completely re-written. The RFI Report will include a new Risk Assessment that will follow the most recent guidance (currently 2022), as described in Section 12.0 of the Supplemental RFI Work Plan. The 2022 NMED screening levels (or current at the time the risk assessment is conducted) will be used; see Table 11.4 of the Supplemental RFI Work Plan.

APPENDIX B
Initial RFI Data and PIIM Data

*(Provided in electronic format only due to page length [119 pages].
Hard copy available upon request.)*

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Table B.3-1 Parcel 6 SWMU 8: Sample Locations with Associated Sample Identifiers Fort Wingate Depot Activity, Gallup, NM.

Sample ID	Northing (UTM)	Easting (UTM)	Date	Time
0608B537-SB01	3931633.75	718317.52	6/7/2011	8:50
0608B537-SB02	3931630.73	718324.35	5/26/2011	14:40
0608B537-SB03	3931603.83	718317.97	5/26/2011	14:20
0608B537-SB04	3931589.08	718321.33	5/26/2011	14:00
0608B537-SB05	3931598.55	718305.75	6/6/2011	13:10
0608B537-SB06	3931572.57	718331.60	6/6/2011	10:40
0608B537-SB07	3931558.92	718347.46	6/6/2011	8:40
0608B537-SB08	3931543.94	718341.18	6/6/2011	9:10
0608B537-SB09	3931558.13	718329.97	6/6/2011	10:20
0608B537-SB10	3931538.74	718323.00	6/6/2011	9:40
0608B537-SB11	3931544.51	718303.38	6/6/2011	11:00
0608B537-SB12	3931547.23	718292.86	6/6/2011	11:20
0608B537-SB13	3931566.06	718294.00	6/6/2011	12:00
0608B537-SB14	3931574.74	718326.03	5/26/2011	11:10
0608B537-SB15	3931641.98	718190.58	5/25/2011	8:40

[0]Northing and Easting values determined through surveyence with topcom bay station model

Local ID (identifier) qualifiers:

SO- Soil Sample

SS-Surface Sample

BM- Multi Incremental 1 ft. bgs

AM- Multi Incremental <1 ft. bgs

SB- Soil Boring

Table B.3-2 Parcel 6 SWMU 8: Method 8260B Volatile Organic Compounds Soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0608B537-SB03-0405D-SO	280-17036-1	6/15/2011	4-5	Carbon disulfide	75-15-0	0.00097	J	0.0063	0.00053	mg/kg	1550	NMED SSL	
0608B537-SB05-0001D-SO	280-16660-2	6/6/2011	0-1	Carbon disulfide	75-15-0	0.00024	J	0.0028	0.00024	mg/kg	1550	NMED SSL	
0608B537-SB05-6465D-SO	280-16660-5	6/6/2011	30-31	Carbon disulfide	75-15-0	0.00042	J	0.003	0.00025	mg/kg	1550	NMED SSL	
0608B537-SB07-0001D-SO	280-16660-8	6/6/2011	0-1	Acetone	67-64-1	0.0045	J	0.014	0.0038	mg/kg	66300	NMED SSL	
0608B537-SB07-0001D-SO	280-16660-8	6/6/2011	0-1	Carbon disulfide	75-15-0	0.00031	J	0.0035	0.0003	mg/kg	1550	NMED SSL	
0608B537-SB07-0405D-SO	280-16660-9	6/6/2011	4-5	Acetone	67-64-1	0.0037	J	0.014	0.0037	mg/kg	66300	NMED SSL	
0608B537-SB09-0405D-SO	280-16660-17	6/6/2011	4-5	Carbon disulfide	75-15-0	0.00043	J	0.0037	0.00031	mg/kg	1550	NMED SSL	
0608B537-SB11-0405D-SO	280-16660-21	6/6/2011	4-5	Carbon disulfide	75-15-0	0.00041	J	0.0038	0.00032	mg/kg	1550	NMED SSL	
0608B537-SB12-0405D-SO	280-16660-1	6/6/2011	4-5	Acetone	67-64-1	0.0062	J	0.015	0.0041	mg/kg	66300	NMED SSL	
0608B537-SB12-0405D-SO	280-16660-1	6/6/2011	4-5	Naphthalene	91-20-3	0.0006	J	0.0038	0.00048	mg/kg	22.6	NMED SSL	
0608B537-SB13-0001D-SO	280-16660-22	6/6/2011	0-1	Acetone	67-64-1	0.0035	J	0.013	0.0034	mg/kg	66300	NMED SSL	
0608B537-SB13-0001D-SO	280-16660-22	6/6/2011	0-1	Carbon disulfide	75-15-0	0.00033	J	0.0032	0.00027	mg/kg	1550	NMED SSL	
0608B537-SB13-0405D-SO	280-16660-23	6/6/2011	4-5	Acetone	67-64-1	0.0057	J	0.011	0.003	mg/kg	66300	NMED SSL	
0608B537-SB15-0910D-SO	280-16296-3	5/25/2011	9-10	1,2,3-Trichlorobenzene	87-61-6	0.0011	J	0.0033	0.0005	mg/kg	63	EPA RSL	
0608B537-SB15-0910D-SO	280-16296-3	5/25/2011	9-10	1,2,4-Trichlorobenzene	120-82-1	0.00074	J	0.0033	0.00048	mg/kg	79.1	NMED SSL	
0608B537-SB15-0910D-SO	280-16296-3	5/25/2011	9-10	Hexachlorobutadiene	87-68-3	0.00064	J	0.0033	0.00036	mg/kg	52.1	NMED SSL	
0608B537-SB15-0910D-SO	280-16296-3	5/25/2011	9-10	Naphthalene	91-20-3	0.0011	J	0.0033	0.00042	mg/kg	22.6	NMED SSL	

Notes:

CAS	Chemical Abstracts Service
DC	Direct Contact
DL	Detection Limit
DUP	Duplicate
EPA	Environmental Protection Agency
HH	Human Health
ID	Identification
LOD	Limit of Detection
LOQ	Limit of Quantiation
mg/kg	milligrams per kilogram
NMED	New Mexico Environment Department
NS	No Standard
RCRA	Resource Conservation and Recovery Act
RSL	Regional Screening Level
SSL	Soil Screening Level
SWMU	Soil Waste Management Unit

Lab Qualifier Codes:

Organics

J	Indicates that the analyte is positively identified and the result is less than the LOQ but greater than the DL.
U	Not detected at the LOD

Validation Qualifier Codes:

J	The analyte was positively identified; the associated numerical value is the approximate concentration
U	Not detected at or above the LOD.

Sample ID nomenclature:

Sample ID's consist of a combination of Parcel, AOC, additional site identifier, purpose of sample, increment number, sample depth, sample type, and matrix.

Example: 0608B537AEC-0.0-0.5D-SO
Parcel: 06
SWMU: 08

Additional Site Identifier: B537 (in this case it's Building 537)
Source of Sample: A (in this case it's Building 537 Area A)
Purpose of Sample: EC (excavation confirmation)
Sample Depth: Depth of samples will be designated with a 4-digit number, the first 2 digits starting depth, second 2 digits bottom depth (in this case 0.0 to 0.5 feet)
Sample Type: D (Discrete)
Sample Matrix: SO (soil) (in this case soil)
DUP = Field Duplicate (when applicable)

Screening level exceedances indicated by red result and a yellow highlighted "YES".

1. Excavated - Sample location was excavated during the Permittee-Initiated Interim Measure.

+ Screening Level Sources:

NMED SSL and EPA RSL	The HH DC Value selected is the lowest NMED Direct Contact Screening Level (for residents, industrial/occupational workers, and construction workers) via NMED Risk Assessment Guidance for Site Investigations and Remediation, November 2022 Revised. If there is no NMED Direct Contact Screening Level, the lowest EPA Residential RSL is selected for a target excess cancer risk level of 1 x 10-5 or target noncancer hazard quotient of 1.0 (November 2024). The most recent screening levels published by NMED and USEPA at the time the risk evaluation is conducted will be used in the risk evaluation.

Table B.3-3 Parcel 6 SWMU 8: Method 8270C Semi-Volatile Organic Compounds Soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0608B537-SB01-6465D-SO	280-16703-4	6/7/2011	26-27	Benzo[g,h,i]perylene	191-24-2	0.025	J	0.38	0.018	mg/kg	1740	NMED SSL	
0608B537-SB02-0001D-SO	280-16327-9	5/26/2011	0-1	Benzo[a]anthracene	56-55-3	0.17	J	0.34	0.021	mg/kg	1.53	NMED SSL	
0608B537-SB02-0001D-SO	280-16327-9	5/26/2011	0-1	Benzo[a]pyrene	50-32-8	0.17	J	0.34	0.021	mg/kg	1.12	NMED SSL	
0608B537-SB02-0001D-SO	280-16327-9	5/26/2011	0-1	Benzo[b]fluoranthene	205-99-2	0.29	J	0.34	0.027	mg/kg	1.53	NMED SSL	
0608B537-SB02-0001D-SO	280-16327-9	5/26/2011	0-1	Benzo[g,h,i]perylene	191-24-2	0.12	J	0.34	0.017	mg/kg	1740	NMED SSL	
0608B537-SB02-0001D-SO	280-16327-9	5/26/2011	0-1	Bis(2-ethylhexyl) phthalate	117-81-7	0.093	J	0.34	0.048	mg/kg	380	NMED SSL	
0608B537-SB02-0001D-SO	280-16327-9	5/26/2011	0-1	Chrysene	218-01-9	0.16	J	0.34	0.028	mg/kg	153	NMED SSL	
0608B537-SB02-0001D-SO	280-16327-9	5/26/2011	0-1	Fluoranthene	206-44-0	0.29	J	0.34	0.037	mg/kg	2320	NMED SSL	
0608B537-SB02-0001D-SO	280-16327-9	5/26/2011	0-1	Indeno[1,2,3-cd]pyrene	193-39-5	0.1	J	0.34	0.023	mg/kg	1.53	NMED SSL	
0608B537-SB02-0001D-SO	280-16327-9	5/26/2011	0-1	Phenanthrene	85-01-8	0.034	J	0.34	0.018	mg/kg	1850	NMED SSL	
0608B537-SB02-0001D-SO	280-16327-9	5/26/2011	0-1	Pyrene	129-00-0	0.28	J	0.41	0.013	mg/kg	1740	NMED SSL	
0608B537-SB02-0405D-SO	280-16327-10	5/26/2011	4-5	Bis(2-ethylhexyl) phthalate	117-81-7	0.097	J	0.38	0.053	mg/kg	380	NMED SSL	
0608B537-SB03-0001D-SO	280-16327-11	5/26/2011	0-1	Bis(2-ethylhexyl) phthalate	117-81-7	0.089	J	0.36	0.051	mg/kg	380	NMED SSL	
0608B537-SB03-0001D-SO	280-16327-11	5/26/2011	0-1	Diethyl phthalate	84-66-2	0.053	J	0.73	0.029	mg/kg	49300	NMED SSL	
0608B537-SB03-0001D-SO	280-16327-11	5/26/2011	0-1	Pyrene	129-00-0	0.014	J	0.44	0.013	mg/kg	1740	NMED SSL	
0608B537-SB03-0405D-SO	280-16327-12	5/26/2011	4-5	Bis(2-ethylhexyl) phthalate	117-81-7	0.083	J	0.36	0.05	mg/kg	380	NMED SSL	
0608B537-SB04-0001D-SO	280-16327-13	5/26/2011	0-1	Bis(2-ethylhexyl) phthalate	117-81-7	0.086	J	0.36	0.05	mg/kg	380	NMED SSL	
0608B537-SB04-0405D-SO	280-16327-14	5/26/2011	4-5	Bis(2-ethylhexyl) phthalate	117-81-7	0.085	J	0.38	0.054	mg/kg	380	NMED SSL	
0608B537-SB04-0405D-SO	280-16327-14	5/26/2011	4-5	Phenol	108-95-2	0.022	J	0.38	0.021	mg/kg	18500	NMED SSL	
0608B537-SB07-0001D-SO	280-16660-8	6/6/2011	0-1	Pyrene	129-00-0	0.03	J	0.46	0.014	mg/kg	1740	NMED SSL	
0608B537-SB14-0405D-SO	280-16327-3	5/26/2011	4-5	Bis(2-ethylhexyl) phthalate	117-81-7	0.084	J	0.39	0.054	mg/kg	380	NMED SSL	
0608B537-SB14-1415D-SO	280-16327-4	5/26/2011	14-15	Bis(2-ethylhexyl) phthalate	117-81-7	0.077	J	0.36	0.05	mg/kg	380	NMED SSL	
0608B537-SB14-2425D-SO	280-16327-5	5/26/2011	24-25	Bis(2-ethylhexyl) phthalate	117-81-7	0.076	J	0.37	0.051	mg/kg	380	NMED SSL	
0608B537-SB15-6465D-SO	280-16327-7	5/26/2011	30-31	Bis(2-ethylhexyl) phthalate	117-81-7	0.069	J	0.34	0.047	mg/kg	380	NMED SSL	

Notes:

CAS	Chemical Abstracts Service
DC	Direct Contact
DL	Detection Limit
DUP	Duplicate
EPA	Environmental Protection Agency
HH	Human Health
ID	Identification
LOD	Limit of Detection
LOQ	Limit of Quantiation
mg/kg	milligrams per kilogram
NMED	New Mexico Environment Department
NS	No Standard
RCRA	Resource Conservation and Recovery Act
RSL	Regional Screening Level
SSL	Soil Screening Level
SWMU	Soil Waste Management Unit

Lab Qualifier Codes:

Organics

J	Indicates that the analyte is positively identified and the result is less than the LOQ but greater than the DL.
U	Not detected at the LOD

Validation Qualifier Codes:

J	The analyte was positively identified; the associated numerical value is the approximate concentration
U	Not detected at or above the LOD.

Sample ID nomenclature:

Sample ID's consist of a combination of Parcel, AOC, additional site identifier, purpose of sample, increment number, sample depth, sample type, and matrix.

Example: 0608B537AEC-0.0-0.5D-SO
Parcel: 06
SWMU: 08

Additional Site Identifier: B537 (in this case it's Building 537)
Source of Sample: A (in this case it's Building 537 Area A)
Purpose of Sample: EC (excavation confirmation)
Sample Depth: Depth of samples will be designated with a 4-digit number, the first 2 digits starting depth, second 2 digits bottom depth (in this case 0.0 to 0.5 feet)
Sample Type: D (Discrete)
Sample Matrix: SO (soil) (in this case soil)
DUP = Field Duplicate (when applicable)

Screening level exceedances indicated by red result and a yellow highlighted "YES".

1. Excavated - Sample location was excavated during the Permittee-Initiated Interim Measure.

+ Screening Level Sources:

NMED SSL and EPA RSL	The HH DC Value selected is the lowest NMED Direct Contact Screening Level (for residents, industrial/occupational workers, and construction workers) via NMED Risk Assessment Guidance for Site Investigations and Remediation, November 2022 Revised. If there is no NMED Direct Contact Screening Level, the lowest EPA Residential RSL is selected for a target excess cancer risk level of 1 x 10-5 or target noncancer hazard quotient of 1.0 (November 2024). The most recent screening levels published by NMED and USEPA at the time the risk evaluation is conducted will be used in the risk evaluation.

Table B.3-4 Parcel 6 SWMU 8: Method 8015M Oil Range Organics Soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0608B537-SB01-0001D-SO	280-16703-1	6/7/2011	0-1	Motor Oil Range Organics [C24-C36]	STL00158	61		12	4	mg/Kg	1000	NMED SSL	
0608B537-SB01-0405D-SO	280-16703-3	6/7/2011	4-5	Motor Oil Range Organics [C24-C36]	STL00158	4.5	J	13	4.2	mg/Kg	1000	NMED SSL	
0608B537-SB02-0001D-SO	280-16327-9	5/26/2011	0-1	Motor Oil Range Organics [C24-C36]	STL00158	79		12	4	mg/Kg	1000	NMED SSL	
0608B537-SB03-0001D-SO	280-16327-11	5/26/2011	0-1	Motor Oil Range Organics [C24-C36]	STL00158	200	J	13	4.3	mg/Kg	1000	NMED SSL	
0608B537-SB04-0001D-SO	280-16327-13	5/26/2011	0-1	Motor Oil Range Organics [C24-C36]	STL00158	6.8	J	13	4.3	mg/Kg	1000	NMED SSL	
0608B537-SB05-0001D-SO	280-16660-2	6/6/2011	0-1	Motor Oil Range Organics [C24-C36]	STL00158	12	J	15	4.8	mg/Kg	1000	NMED SSL	
0608B537-SB06-0405D-SO	280-16660-19	6/6/2011	4-5	Motor Oil Range Organics [C24-C36]	STL00158	15		13	4.2	mg/Kg	1000	NMED SSL	
0608B537-SB07-0001D-SO	280-16660-8	6/6/2011	0-1	Motor Oil Range Organics [C24-C36]	STL00158	13	J	14	4.4	mg/Kg	1000	NMED SSL	
0608B537-SB07-0405D-SO	280-16660-9	6/6/2011	4-5	Motor Oil Range Organics [C24-C36]	STL00158	5.7	J	13	4.3	mg/Kg	1000	NMED SSL	
0608B537-SB08-0405D-SO	280-16660-12	6/6/2011	4-5	Motor Oil Range Organics [C24-C36]	STL00158	9.1	J	12	4	mg/Kg	1000	NMED SSL	
0608B537-SB09-0405D-SO	280-16660-17	6/6/2011	4-5	Motor Oil Range Organics [C24-C36]	STL00158	4.2	J	13	4.1	mg/Kg	1000	NMED SSL	
0608B537-SB10-0405D-SO	280-16660-14	6/6/2011	4-5	Motor Oil Range Organics [C24-C36]	STL00158	7	J	14	4.5	mg/Kg	1000	NMED SSL	
0608B537-SB11-0001D-SO	280-16660-20	6/6/2011	0-1	Motor Oil Range Organics [C24-C36]	STL00158	17		12	4	mg/Kg	1000	NMED SSL	
0608B537-SB11-0405D-SO	280-16660-21	6/6/2011	4-5	Motor Oil Range Organics [C24-C36]	STL00158	5.6	J	13	4.1	mg/Kg	1000	NMED SSL	
0608B537-SB12-0001D-SO	280-16660-7	6/6/2011	0-1	Motor Oil Range Organics [C24-C36]	STL00158	50		14	4.5	mg/Kg	1000	NMED SSL	
0608B537-SB13-0405D-SO	280-16660-23	6/6/2011	4-5	Motor Oil Range Organics [C24-C36]	STL00158	6.8	J	13	4.2	mg/Kg	1000	NMED SSL	
0608B537-SB15-0405D-SO	280-16296-1	5/25/2011	4-5	Motor Oil Range Organics [C24-C36]	STL00158	4.3	J	12	4	mg/Kg	1000	NMED SSL	

Notes:

CAS	Chemical Abstracts Service
DC	Direct Contact
DL	Detection Limit
DUP	Duplicate
EPA	Environmental Protection Agency
HH	Human Health
ID	Identification
LOD	Limit of Detection
LOQ	Limit of Quantiation
mg/kg	milligrams per kilogram
NMED	New Mexico Environment Department
NS	No Standard
RCRA	Resource Conservation and Recovery Act
RSL	Regional Screening Level
SSL	Soil Screening Level
SWMU	Soil Waste Management Unit

Lab Qualifier Codes:

Organics

J	Indicates that the analyte is positively identified and the result is less than the LOQ but greater than the DL.
U	Not detected at the LOD

Validation Qualifier Codes:

J	The analyte was positively identified; the associated numerical value is the approximate concentration
U	Not detected at or above the LOD.

Sample ID nomenclature:

Sample ID's consist of a combination of Parcel, AOC, additional site identifier, purpose of sample, increment number, sample depth, sample type, and matrix.

Example: 0608B537AEC-0.0-0.5D-SO
Parcel: 06
SWMU: 08

Additional Site Identifier: B537 (in this case it's Building 537)
Source of Sample: A (in this case it's Building 537 Area A)
Purpose of Sample: EC (excavation confirmation)
Sample Depth: Depth of samples will be designated with a 4-digit number, the first 2 digits starting depth, second 2 digits bottom depth (in this case 0.0 to 0.5 feet)
Sample Type: D (Discrete)
Sample Matrix: SO (soil) (in this case soil)
DUP = Field Duplicate (when applicable)

Screening level exceedances indicated by red result and a yellow highlighted "YES".

1. Excavated - Sample location was excavated during the Permittee-Initiated Interim Measure.

+ Screening Level Sources:

NMED SSL and EPA RSL	The HH DC Value selected is the lowest NMED Direct Contact Screening Level (for residents, industrial/occupational workers, and construction workers) via NMED Risk Assessment Guidance for Site Investigations and Remediation, November 2022 Revised. If there is no NMED Direct Contact Screening Level, the lowest EPA Residential RSL is selected for a target excess cancer risk level of 1 x 10-5 or target noncancer hazard quotient of 1.0 (November 2024). The most recent screening levels published by NMED and USEPA at the time the risk evaluation is conducted will be used in the risk evaluation.

Table B.3-5 Parcel 6 SWMU 8: Method 8082 Polychlorinated Biphenyls Soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0608B537-SB01-0001D-SO	280-16703-1	6/7/2011	0-1	PCB-1260	11096-82-5	0.02	J	0.036	0.0029	mg/kg	2.43	NMED SSL	
0608B537-SB02-0001D-SO	280-16327-9	5/26/2011	0-1	PCB-1260	11096-82-5	1.1		0.18	0.014	mg/kg	2.43	NMED SSL	
0608B537-SB02-0405D-SO	280-16327-10	5/26/2011	4-5	PCB-1260	11096-82-5	0.012	J	0.039	0.0031	mg/kg	2.43	NMED SSL	
0608B537-SB03-0001D-SO	280-16327-11	5/26/2011	0-1	PCB-1260	11096-82-5	1		0.18	0.015	mg/kg	2.43	NMED SSL	
0608B537-SB04-0001D-SO	280-16327-13	5/26/2011	0-1	PCB-1260	11096-82-5	0.12		0.035	0.0028	mg/kg	2.43	NMED SSL	
0608B537-SB04-0405D-SO	280-16327-14	5/26/2011	4-5	PCB-1260	11096-82-5	0.0055	J	0.04	0.0032	mg/kg	2.43	NMED SSL	
0608B537-SB06-0001D-SO	280-16660-18	6/6/2011	0-1	PCB-1260	11096-82-5	0.044		0.036	0.0029	mg/kg	2.43	NMED SSL	
0608B537-SB06-0405D-SO	280-16660-19	6/6/2011	4-5	PCB-1260	11096-82-5	0.015	J	0.034	0.0027	mg/kg	2.43	NMED SSL	
0608B537-SB07-0001D-SO	280-16660-8	6/6/2011	0-1	PCB-1260	11096-82-5	0.004	J	0.035	0.0028	mg/kg	2.43	NMED SSL	
0608B537-SB09-0001D-SO	280-16660-16	6/6/2011	0-1	PCB-1260	11096-82-5	0.0057	J	0.039	0.0031	mg/kg	2.43	NMED SSL	
0608B537-SB09-0405D-SO	280-16660-17	6/6/2011	4-5	PCB-1260	11096-82-5	0.044		0.034	0.0027	mg/kg	2.43	NMED SSL	
0608B537-SB14-0405D-SO	280-16327-3	5/26/2011	4-5	PCB-1260	11096-82-5	0.092		0.036	0.0029	mg/kg	2.43	NMED SSL	

Notes:

CAS	Chemical Abstracts Service
DC	Direct Contact
DL	Detection Limit
DUP	Duplicate
EPA	Environmental Protection Agency
HH	Human Health
ID	Identification
LOD	Limit of Detection
LOQ	Limit of Quantiation
mg/kg	milligrams per kilogram
NMED	New Mexico Environment Department
NS	No Standard
RCRA	Resource Conservation and Recovery Act
RSL	Regional Screening Level
SSL	Soil Screening Level
SWMU	Soil Waste Management Unit

Lab Qualifier Codes:

Organics

J	Indicates that the analyte is positively identified and the result is less than the LOQ but greater than the DL.
U	Not detected at the LOD

Validation Qualifier Codes:

J	The analyte was positively identified; the associated numerical value is the approximate concentration
U	Not detected at or above the LOD.

Sample ID nomenclature:

Sample ID's consist of a combination of Parcel, AOC, additional site identifier, purpose of sample, increment number, sample depth, sample type, and matrix.

Example: 0608B537AEC-0.0-0.5D-SO
Parcel: 06
SWMU: 08

Additional Site Identifier: B537 (in this case it's Building 537)
Source of Sample: A (in this case it's Building 537 Area A)
Purpose of Sample: EC (excavation confirmation)
Sample Depth: Depth of samples will be designated with a 4-digit number, the first 2 digits starting depth, second 2 digits bottom depth (in this case 0.0 to 0.5 feet)
Sample Type: D (Discrete)
Sample Matrix: SO (soil) (in this case soil)
DUP = Field Duplicate (when applicable)

Screening level exceedances indicated by red result and a yellow highlighted "YES".

1. Excavated - Sample location was excavated during the Permittee-Initiated Interim Measure.

+ Screening Level Sources:

NMED SSL and EPA RSL	The HH DC Value selected is the lowest NMED Direct Contact Screening Level (for residents, industrial/occupational workers, and construction workers) via NMED Risk Assessment Guidance for Site Investigations and Remediation, November 2022 Revised. If there is no NMED Direct Contact Screening Level, the lowest EPA Residential RSL is selected for a target excess cancer risk level of 1 x 10-5 or target noncancer hazard quotient of 1.0 (November 2024). The most recent screening levels published by NMED and USEPA at the time the risk evaluation is conducted will be used in the risk evaluation.

Table B.3-6 Parcel 6 SWMU 8: Method 8081A Pesticides Soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0608B537-SB01-0001D-SO	280-16703-1	6/7/2011	0-1	4,4'-DDT	50-29-3	0.00077	J	0.0022	0.00065	mg/kg	18.7	NMED SSL	
0608B537-SB02-0001D-SO	280-16327-9	5/26/2011	0-1	4,4'-DDE	72-55-9	0.017	J	0.0018	0.00026	mg/kg	15.7	NMED SSL	
0608B537-SB02-0001D-SO	280-16327-9	5/26/2011	0-1	4,4'-DDT	50-29-3	0.038	J	0.011	0.0032	mg/kg	18.7	NMED SSL	
0608B537-SB02-0001D-SO	280-16327-9	5/26/2011	0-1	alpha-Chlordane	5103-71-9	0.089	J	0.0091	0.0017	mg/kg	17.7	NMED SSL	
0608B537-SB02-0001D-SO	280-16327-9	5/26/2011	0-1	Endosulfan sulfate	1031-07-8	0.00059	J	0.0018	0.0003	mg/kg	370	NMED SSL	
0608B537-SB02-0001D-SO	280-16327-9	5/26/2011	0-1	Heptachlor epoxide	1024-57-3	0.0086	J	0.0018	0.00046	mg/kg	0.7	EPA RSL	
0608B537-SB02-0405D-SO	280-16327-10	5/26/2011	4-5	alpha-Chlordane	5103-71-9	0.00062	J	0.002	0.00038	mg/kg	17.7	NMED SSL	
0608B537-SB03-0001D-SO	280-16327-11	5/26/2011	0-1	4,4'-DDE	72-55-9	0.0025		0.0019	0.00026	mg/kg	15.7	NMED SSL	
0608B537-SB03-0001D-SO	280-16327-11	5/26/2011	0-1	4,4'-DDT	50-29-3	0.019		0.011	0.0033	mg/kg	18.7	NMED SSL	
0608B537-SB03-0001D-SO	280-16327-11	5/26/2011	0-1	alpha-Chlordane	5103-71-9	0.0029		0.0019	0.00036	mg/kg	17.7	NMED SSL	
0608B537-SB03-0001D-SO	280-16327-11	5/26/2011	0-1	Endosulfan sulfate	1031-07-8	0.00034	J	0.0019	0.00031	mg/kg	370	NMED SSL	
0608B537-SB03-0001D-SO	280-16327-11	5/26/2011	0-1	Heptachlor epoxide	1024-57-3	0.0012	J	0.0019	0.00047	mg/kg	0.7	EPA RSL	
0608B537-SB04-0001D-SO	280-16327-13	5/26/2011	0-1	4,4'-DDD	72-54-8	0.35	J	0.18	0.058	mg/kg	22.2	NMED SSL	
0608B537-SB04-0001D-SO	280-16327-13	5/26/2011	0-1	4,4'-DDE	72-55-9	1.1	J	0.18	0.025	mg/kg	15.7	NMED SSL	
0608B537-SB04-0001D-SO	280-16327-13	5/26/2011	0-1	4,4'-DDT	50-29-3	2.4	J	0.21	0.063	mg/kg	18.7	NMED SSL	
0608B537-SB04-0001D-SO	280-16327-13	5/26/2011	0-1	alpha-Chlordane	5103-71-9	0.0055		0.0018	0.00034	mg/kg	17.7	NMED SSL	
0608B537-SB04-0001D-SO	280-16327-13	5/26/2011	0-1	Endosulfan sulfate	1031-07-8	0.0053		0.0018	0.00029	mg/kg	370	NMED SSL	
0608B537-SB04-0405D-SO	280-16327-14	5/26/2011	4-5	4,4'-DDE	72-55-9	0.0023		0.002	0.00028	mg/kg	15.7	NMED SSL	
0608B537-SB04-0405D-SO	280-16327-14	5/26/2011	4-5	4,4'-DDT	50-29-3	0.0046		0.0024	0.00071	mg/kg	18.7	NMED SSL	
0608B537-SB06-0001D-SO	280-16660-18	6/6/2011	0-1	4,4'-DDT	50-29-3	0.00079	J	0.0022	0.00064	mg/kg	18.7	NMED SSL	
0608B537-SB09-0405D-SO	280-16660-17	6/6/2011	4-5	4,4'-DDT	50-29-3	0.001	J	0.0021	0.00061	mg/kg	18.7	NMED SSL	
0608B537-SB11-0001D-SO	280-16660-20	6/6/2011	0-1	alpha-Chlordane	5103-71-9	0.00086	J	0.0018	0.00034	mg/kg	17.7	NMED SSL	
0608B537-SB12-0001D-SO	280-16660-7	6/6/2011	0-1	Endosulfan II	33213-65-9	0.00048	J	0.002	0.00033	mg/kg	370	NMED SSL	
0608B537-SB14-0405D-SO	280-16327-3	5/26/2011	4-5	4,4'-DDT	50-29-3	0.0015	J	0.0022	0.00065	mg/kg	18.7	NMED SSL	

Notes:

CAS	Chemical Abstracts Service
DC	Direct Contact
DL	Detection Limit
DUP	Duplicate
EPA	Environmental Protection Agency
HH	Human Health
ID	Identification
LOD	Limit of Detection
LOQ	Limit of Quantiation
mg/kg	milligrams per kilogram
NMED	New Mexico Environment Department
NS	No Standard
RCRA	Resource Conservation and Recovery Act
RSL	Regional Screening Level
SSL	Soil Screening Level
SWMU	Soil Waste Management Unit

Lab Qualifier Codes:

Organics

J	Indicates that the analyte is positively identified and the result is less than the LOQ but greater than the DL.
U	Not detected at the LOD

Validation Qualifier Codes:

J	The analyte was positively identified; the associated numerical value is the approximate concentration
U	Not detected at or above the LOD.

Sample ID nomenclature:

Sample ID's consist of a combination of Parcel, AOC, additional site identifier, purpose of sample, increment number, sample depth, sample type, and matrix.

Example: 0608B537AEC-0.0-0.5D-SO
Parcel: 06
SWMU: 08

Additional Site Identifier: B537 (in this case it's Building 537)
Source of Sample: A (in this case it's Building 537 Area A)
Purpose of Sample: EC (excavation confirmation)
Sample Depth: Depth of samples will be designated with a 4-digit number, the first 2 digits starting depth, second 2 digits bottom depth (in this case 0.0 to 0.5 feet)
Sample Type: D (Discrete)
Sample Matrix: SO (soil) (in this case soil)
DUP = Field Duplicate (when applicable)

Screening level exceedances indicated by red result and a yellow highlighted "YES".

1. Excavated - Sample location was excavated during the Permittee-Initiated Interim Measure.

+ Screening Level Sources:

NMED SSL and EPA RSL	The HH DC Value selected is the lowest NMED Direct Contact Screening Level (for residents, industrial/occupational workers, and construction workers) via NMED Risk Assessment Guidance for Site Investigations and Remediation, November 2022 Revised. If there is no NMED Direct Contact Screening Level, the lowest EPA Residential RSL is selected for a target excess cancer risk level of 1 x 10-5 or target noncancer hazard quotient of 1.0 (November 2024). The most recent screening levels published by NMED and USEPA at the time the risk evaluation is conducted will be used in the risk evaluation.

Table B.3-7 Parcel 6 SWMU 8: Method 6010B/7471A Metals Soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0608B537-SB01-0001D-SO	280-16703-1	6/7/2011	0-1	Arsenic	7440-38-2	3.3		2.5	0.67	mg/Kg	7.07	NMED SSL	
0608B537-SB01-0001D-SO	280-16703-1	6/7/2011	0-1	Barium	7440-39-3	280		2	0.077	mg/Kg	4390	NMED SSL	
0608B537-SB01-0001D-SO	280-16703-1	6/7/2011	0-1	Cadmium	7440-43-9	0.061	J	0.51	0.042	mg/Kg	70.5	NMED SSL	
0608B537-SB01-0001D-SO	280-16703-1	6/7/2011	0-1	Chromium	7440-47-3	11		3.6	0.059	mg/Kg	96.6	NMED SSL	
0608B537-SB01-0001D-SO	280-16703-1	6/7/2011	0-1	Lead	7439-92-1	8.5		0.92	0.27	mg/Kg	200	EPA RSL	
0608B537-SB01-0001D-SO	280-16703-1	6/7/2011	0-1	Mercury	7439-97-6	0.02		0.019	0.0061	mg/kg	20.7	NMED SSL	
0608B537-SB01-0405D-SO	280-16703-3	6/7/2011	4-5	Arsenic	7440-38-2	2.8		2.6	0.69	mg/Kg	7.07	NMED SSL	
0608B537-SB01-0405D-SO	280-16703-3	6/7/2011	4-5	Barium	7440-39-3	450		2.1	0.079	mg/Kg	4390	NMED SSL	
0608B537-SB01-0405D-SO	280-16703-3	6/7/2011	4-5	Cadmium	7440-43-9	0.09	J	0.52	0.043	mg/Kg	70.5	NMED SSL	
0608B537-SB01-0405D-SO	280-16703-3	6/7/2011	4-5	Chromium	7440-47-3	11		3.7	0.06	mg/Kg	96.6	NMED SSL	
0608B537-SB01-0405D-SO	280-16703-3	6/7/2011	4-5	Lead	7439-92-1	7.7		0.94	0.28	mg/Kg	200	EPA RSL	
0608B537-SB01-0405D-SO	280-16703-3	6/7/2011	4-5	Mercury	7439-97-6	0.0054	J	0.016	0.0053	mg/kg	20.7	NMED SSL	
0608B537-SB01-6465D-SO	280-16703-4	6/7/2011	26-27	Arsenic	7440-38-2	1.2	J	2.6	0.68	mg/Kg	7.07	NMED SSL	
0608B537-SB01-6465D-SO	280-16703-4	6/7/2011	26-27	Barium	7440-39-3	140		2.1	0.078	mg/Kg	4390	NMED SSL	
0608B537-SB01-6465D-SO	280-16703-4	6/7/2011	26-27	Chromium	7440-47-3	21		3.6	0.059	mg/Kg	96.6	NMED SSL	
0608B537-SB01-6465D-SO	280-16703-4	6/7/2011	26-27	Lead	7439-92-1	12		0.92	0.28	mg/Kg	200	EPA RSL	
0608B537-SB02-0001D-SO	280-16327-9	5/26/2011	0-1	Arsenic	7440-38-2	2.4	J	2.5	0.65	mg/Kg	7.07	NMED SSL	
0608B537-SB02-0001D-SO	280-16327-9	5/26/2011	0-1	Barium	7440-39-3	580		2	0.075	mg/Kg	4390	NMED SSL	
0608B537-SB02-0001D-SO	280-16327-9	5/26/2011	0-1	Cadmium	7440-43-9	0.28	J	0.49	0.04	mg/Kg	70.5	NMED SSL	
0608B537-SB02-0001D-SO	280-16327-9	5/26/2011	0-1	Chromium	7440-47-3	12		3.4	0.057	mg/Kg	96.6	NMED SSL	
0608B537-SB02-0001D-SO	280-16327-9	5/26/2011	0-1	Lead	7439-92-1	17		0.89	0.27	mg/Kg	200	EPA RSL	
0608B537-SB02-0001D-SO	280-16327-9	5/26/2011	0-1	Mercury	7439-97-6	0.032		0.018	0.0058	mg/kg	20.7	NMED SSL	
0608B537-SB02-0405D-SO	280-16327-10	5/26/2011	4-5	Arsenic	7440-38-2	2	J	2.5	0.66	mg/Kg	7.07	NMED SSL	
0608B537-SB02-0405D-SO	280-16327-10	5/26/2011	4-5	Barium	7440-39-3	550		2	0.076	mg/Kg	4390	NMED SSL	
0608B537-SB02-0405D-SO	280-16327-10	5/26/2011	4-5	Cadmium	7440-43-9	0.16	J	0.5	0.041	mg/Kg	70.5	NMED SSL	
0608B537-SB02-0405D-SO	280-16327-10	5/26/2011	4-5	Chromium	7440-47-3	17		3.5	0.058	mg/Kg	96.6	NMED SSL	
0608B537-SB02-0405D-SO	280-16327-10	5/26/2011	4-5	Lead	7439-92-1	5.8		0.9	0.27	mg/Kg	200	EPA RSL	
0608B537-SB03-0001D-SO	280-16327-11	5/26/2011	0-1	Arsenic	7440-38-2	2.6		2.6	0.69	mg/Kg	7.07	NMED SSL	
0608B537-SB03-0001D-SO	280-16327-11	5/26/2011	0-1	Barium	7440-39-3	370		2.1	0.08	mg/Kg	4390	NMED SSL	
0608B537-SB03-0001D-SO	280-16327-11	5/26/2011	0-1	Cadmium	7440-43-9	0.21	J	0.53	0.043	mg/Kg	70.5	NMED SSL	
0608B537-SB03-0001D-SO	280-16327-11	5/26/2011	0-1	Chromium	7440-47-3	11		3.7	0.061	mg/Kg	96.6	NMED SSL	
0608B537-SB03-0001D-SO	280-16327-11	5/26/2011	0-1	Lead	7439-92-1	20		0.95	0.28	mg/Kg	200	EPA RSL	
0608B537-SB03-0001D-SO	280-16327-11	5/26/2011	0-1	Mercury	7439-97-6	0.026		0.019	0.0062	mg/kg	20.7	NMED SSL	
0608B537-SB03-0405D-SO	280-16327-12	5/26/2011	4-5	Arsenic	7440-38-2	2.2	J	2.3	0.62	mg/Kg	7.07	NMED SSL	

Table B.3-7 Parcel 6 SWMU 8: Method 6010B/7471A Metals Soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0608B537-SB03-0405D-SO	280-17036-1	6/15/2011	4-5	Arsenic	7440-38-2	2.1	J	2.6	0.68	mg/Kg	7.07	NMED SSL	
0608B537-SB03-0405D-SO	280-16327-12	5/26/2011	4-5	Barium	7440-39-3	140		1.9	0.071	mg/Kg	4390	NMED SSL	
0608B537-SB03-0405D-SO	280-17036-1	6/15/2011	4-5	Barium	7440-39-3	150		2.1	0.079	mg/Kg	4390	NMED SSL	
0608B537-SB03-0405D-SO	280-16327-12	5/26/2011	4-5	Cadmium	7440-43-9	0.047	J	0.47	0.039	mg/Kg	70.5	NMED SSL	
0608B537-SB03-0405D-SO	280-17036-1	6/15/2011	4-5	Cadmium	7440-43-9	0.092	J	0.52	0.042	mg/Kg	70.5	NMED SSL	
0608B537-SB03-0405D-SO	280-17036-1	6/15/2011	4-5	Chromium	7440-47-3	6		3.6	0.06	mg/Kg	96.6	NMED SSL	
0608B537-SB03-0405D-SO	280-16327-12	5/26/2011	4-5	Chromium	7440-47-3	6.3		3.3	0.054	mg/Kg	96.6	NMED SSL	
0608B537-SB03-0405D-SO	280-16327-12	5/26/2011	4-5	Lead	7439-92-1	5.7		0.85	0.25	mg/Kg	200	EPA RSL	
0608B537-SB03-0405D-SO	280-17036-1	6/15/2011	4-5	Lead	7439-92-1	6.7		0.93	0.28	mg/Kg	200	EPA RSL	
0608B537-SB04-0001D-SO	280-16327-13	5/26/2011	0-1	Arsenic	7440-38-2	3.8		2.6	0.69	mg/Kg	7.07	NMED SSL	
0608B537-SB04-0001D-SO	280-16327-13	5/26/2011	0-1	Barium	7440-39-3	160		2.1	0.08	mg/Kg	4390	NMED SSL	
0608B537-SB04-0001D-SO	280-16327-13	5/26/2011	0-1	Cadmium	7440-43-9	0.074	J	0.52	0.043	mg/Kg	70.5	NMED SSL	
0608B537-SB04-0001D-SO	280-16327-13	5/26/2011	0-1	Chromium	7440-47-3	7.7		3.7	0.061	mg/Kg	96.6	NMED SSL	
0608B537-SB04-0001D-SO	280-16327-13	5/26/2011	0-1	Lead	7439-92-1	25		0.94	0.28	mg/Kg	200	EPA RSL	
0608B537-SB04-0001D-SO	280-16327-13	5/26/2011	0-1	Mercury	7439-97-6	0.029		0.016	0.0053	mg/kg	20.7	NMED SSL	
0608B537-SB04-0405D-SO	280-16327-14	5/26/2011	4-5	Arsenic	7440-38-2	1.8	J	2.8	0.75	mg/Kg	7.07	NMED SSL	
0608B537-SB04-0405D-SO	280-16327-14	5/26/2011	4-5	Barium	7440-39-3	260		2.3	0.086	mg/Kg	4390	NMED SSL	
0608B537-SB04-0405D-SO	280-16327-14	5/26/2011	4-5	Chromium	7440-47-3	17		4	0.066	mg/Kg	96.6	NMED SSL	
0608B537-SB04-0405D-SO	280-16327-14	5/26/2011	4-5	Lead	7439-92-1	9.2		1	0.31	mg/Kg	200	EPA RSL	
0608B537-SB05-0001D-SO	280-16660-2	6/6/2011	0-1	Arsenic	7440-38-2	3.8		2.7	0.71	mg/Kg	7.07	NMED SSL	
0608B537-SB05-0001D-SO	280-16660-2	6/6/2011	0-1	Barium	7440-39-3	140	J	2.2	0.082	mg/Kg	4390	NMED SSL	
0608B537-SB05-0001D-SO	280-16660-2	6/6/2011	0-1	Cadmium	7440-43-9	0.11	J	0.54	0.044	mg/Kg	70.5	NMED SSL	
0608B537-SB05-0001D-SO	280-16660-2	6/6/2011	0-1	Chromium	7440-47-3	16		3.8	0.063	mg/Kg	96.6	NMED SSL	
0608B537-SB05-0001D-SO	280-16660-2	6/6/2011	0-1	Lead	7439-92-1	12		0.97	0.29	mg/Kg	200	EPA RSL	
0608B537-SB05-0405D-SO	280-16660-4	6/6/2011	4-5	Arsenic	7440-38-2	3.2		2.6	0.68	mg/Kg	7.07	NMED SSL	
0608B537-SB05-0405D-SO	280-16660-4	6/6/2011	4-5	Barium	7440-39-3	290	J	2.1	0.078	mg/Kg	4390	NMED SSL	
0608B537-SB05-0405D-SO	280-16660-4	6/6/2011	4-5	Cadmium	7440-43-9	0.078	J	0.51	0.042	mg/Kg	70.5	NMED SSL	
0608B537-SB05-0405D-SO	280-16660-4	6/6/2011	4-5	Chromium	7440-47-3	11		3.6	0.06	mg/Kg	96.6	NMED SSL	
0608B537-SB05-0405D-SO	280-16660-4	6/6/2011	4-5	Lead	7439-92-1	9.4		0.93	0.28	mg/Kg	200	EPA RSL	
0608B537-SB05-0405D-SO	280-16660-4	6/6/2011	4-5	Mercury	7439-97-6	0.0069	J	0.02	0.0066	mg/kg	20.7	NMED SSL	
0608B537-SB05-6465D-SO	280-16660-5	6/6/2011	30-31	Arsenic	7440-38-2	1	J	2.8	0.73	mg/Kg	7.07	NMED SSL	
0608B537-SB05-6465D-SO	280-16660-5	6/6/2011	30-31	Barium	7440-39-3	87	J	2.2	0.084	mg/Kg	4390	NMED SSL	
0608B537-SB05-6465D-SO	280-16660-5	6/6/2011	30-31	Cadmium	7440-43-9	0.1	J	0.56	0.046	mg/Kg	70.5	NMED SSL	
0608B537-SB05-6465D-SO	280-16660-5	6/6/2011	30-31	Chromium	7440-47-3	20		3.9	0.064	mg/Kg	96.6	NMED SSL	

Table B.3-7 Parcel 6 SWMU 8: Method 6010B/7471A Metals Soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0608B537-SB05-6465D-SO	280-16660-5	6/6/2011	30-31	Lead	7439-92-1	11		1	0.3	mg/Kg	200	EPA RSL	
0608B537-SB06-0001D-SO	280-16660-18	6/6/2011	0-1	Arsenic	7440-38-2	3.3		2.8	0.73	mg/Kg	7.07	NMED SSL	
0608B537-SB06-0001D-SO	280-16660-18	6/6/2011	0-1	Barium	7440-39-3	720		2.2	0.084	mg/Kg	4390	NMED SSL	
0608B537-SB06-0001D-SO	280-16660-18	6/6/2011	0-1	Cadmium	7440-43-9	0.11	J	0.55	0.045	mg/Kg	70.5	NMED SSL	
0608B537-SB06-0001D-SO	280-16660-18	6/6/2011	0-1	Chromium	7440-47-3	17		3.9	0.064	mg/Kg	96.6	NMED SSL	
0608B537-SB06-0001D-SO	280-16660-18	6/6/2011	0-1	Lead	7439-92-1	12		0.99	0.3	mg/Kg	200	EPA RSL	
0608B537-SB06-0001D-SO	280-16660-18	6/6/2011	0-1	Mercury	7439-97-6	0.008	J	0.018	0.0058	mg/kg	20.7	NMED SSL	
0608B537-SB06-0405D-SO	280-16660-19	6/6/2011	4-5	Arsenic	7440-38-2	2.7		2.4	0.62	mg/Kg	7.07	NMED SSL	
0608B537-SB06-0405D-SO	280-16660-19	6/6/2011	4-5	Barium	7440-39-3	220		1.9	0.072	mg/Kg	4390	NMED SSL	
0608B537-SB06-0405D-SO	280-16660-19	6/6/2011	4-5	Cadmium	7440-43-9	0.059	J	0.47	0.039	mg/Kg	70.5	NMED SSL	
0608B537-SB06-0405D-SO	280-16660-19	6/6/2011	4-5	Chromium	7440-47-3	8		3.3	0.055	mg/Kg	96.6	NMED SSL	
0608B537-SB06-0405D-SO	280-16660-19	6/6/2011	4-5	Lead	7439-92-1	8		0.85	0.26	mg/Kg	200	EPA RSL	
0608B537-SB06-0405D-SO	280-16660-19	6/6/2011	4-5	Mercury	7439-97-6	0.013	J	0.018	0.0058	mg/kg	20.7	NMED SSL	
0608B537-SB07-0001D-SO	280-16660-8	6/6/2011	0-1	Arsenic	7440-38-2	4.4		2.7	0.72	mg/Kg	7.07	NMED SSL	
0608B537-SB07-0001D-SO	280-16660-8	6/6/2011	0-1	Barium	7440-39-3	200	J	2.2	0.083	mg/Kg	4390	NMED SSL	
0608B537-SB07-0001D-SO	280-16660-8	6/6/2011	0-1	Cadmium	7440-43-9	0.13	J	0.54	0.045	mg/Kg	70.5	NMED SSL	
0608B537-SB07-0001D-SO	280-16660-8	6/6/2011	0-1	Chromium	7440-47-3	20		3.8	0.063	mg/Kg	96.6	NMED SSL	
0608B537-SB07-0001D-SO	280-16660-8	6/6/2011	0-1	Lead	7439-92-1	14		0.98	0.29	mg/Kg	200	EPA RSL	
0608B537-SB07-0001D-SO	280-16660-8	6/6/2011	0-1	Mercury	7439-97-6	0.0079	J	0.019	0.0061	mg/kg	20.7	NMED SSL	
0608B537-SB07-0405D-SO	280-16660-9	6/6/2011	4-5	Arsenic	7440-38-2	3.9		2.6	0.7	mg/Kg	7.07	NMED SSL	
0608B537-SB07-0405D-SO	280-16660-9	6/6/2011	4-5	Barium	7440-39-3	230	J	2.1	0.08	mg/Kg	4390	NMED SSL	
0608B537-SB07-0405D-SO	280-16660-9	6/6/2011	4-5	Cadmium	7440-43-9	0.074	J	0.53	0.043	mg/Kg	70.5	NMED SSL	
0608B537-SB07-0405D-SO	280-16660-9	6/6/2011	4-5	Chromium	7440-47-3	9.4		3.7	0.061	mg/Kg	96.6	NMED SSL	
0608B537-SB07-0405D-SO	280-16660-9	6/6/2011	4-5	Lead	7439-92-1	9.3		0.95	0.28	mg/Kg	200	EPA RSL	
0608B537-SB07-0405D-SO	280-16660-9	6/6/2011	4-5	Mercury	7439-97-6	0.019		0.019	0.0063	mg/kg	20.7	NMED SSL	
0608B537-SB08-0001D-SO	280-16660-10	6/6/2011	0-1	Arsenic	7440-38-2	4.4		2.5	0.67	mg/Kg	7.07	NMED SSL	
0608B537-SB08-0001D-SO	280-16660-10	6/6/2011	0-1	Barium	7440-39-3	270	J	2	0.077	mg/Kg	4390	NMED SSL	
0608B537-SB08-0001D-SO	280-16660-10	6/6/2011	0-1	Cadmium	7440-43-9	0.12	J	0.51	0.042	mg/Kg	70.5	NMED SSL	
0608B537-SB08-0001D-SO	280-16660-10	6/6/2011	0-1	Chromium	7440-47-3	18		3.6	0.059	mg/Kg	96.6	NMED SSL	
0608B537-SB08-0001D-SO	280-16660-10	6/6/2011	0-1	Lead	7439-92-1	13		0.92	0.28	mg/Kg	200	EPA RSL	
0608B537-SB08-0405D-SO	280-16660-12	6/6/2011	4-5	Arsenic	7440-38-2	3.1		2.4	0.63	mg/Kg	7.07	NMED SSL	
0608B537-SB08-0405D-SO	280-16660-12	6/6/2011	4-5	Barium	7440-39-3	230	J	1.9	0.072	mg/Kg	4390	NMED SSL	
0608B537-SB08-0405D-SO	280-16660-12	6/6/2011	4-5	Cadmium	7440-43-9	0.099	J	0.47	0.039	mg/Kg	70.5	NMED SSL	
0608B537-SB08-0405D-SO	280-16660-12	6/6/2011	4-5	Chromium	7440-47-3	8.4		3.3	0.055	mg/Kg	96.6	NMED SSL	

Table B.3-7 Parcel 6 SWMU 8: Method 6010B/7471A Metals Soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0608B537-SB08-0405D-SO	280-16660-12	6/6/2011	4-5	Lead	7439-92-1	9		0.85	0.26	mg/Kg	200	EPA RSL	
0608B537-SB08-0405D-SO	280-16660-12	6/6/2011	4-5	Mercury	7439-97-6	0.01	J	0.017	0.0057	mg/kg	20.7	NMED SSL	
0608B537-SB09-0001D-SO	280-16660-16	6/6/2011	0-1	Arsenic	7440-38-2	3.8		2.6	0.68	mg/Kg	7.07	NMED SSL	
0608B537-SB09-0001D-SO	280-16660-16	6/6/2011	0-1	Barium	7440-39-3	400		2.1	0.078	mg/Kg	4390	NMED SSL	
0608B537-SB09-0001D-SO	280-16660-16	6/6/2011	0-1	Cadmium	7440-43-9	0.1	J	0.51	0.042	mg/Kg	70.5	NMED SSL	
0608B537-SB09-0001D-SO	280-16660-16	6/6/2011	0-1	Chromium	7440-47-3	17		3.6	0.06	mg/Kg	96.6	NMED SSL	
0608B537-SB09-0001D-SO	280-16660-16	6/6/2011	0-1	Lead	7439-92-1	12		0.92	0.28	mg/Kg	200	EPA RSL	
0608B537-SB09-0405D-SO	280-16660-17	6/6/2011	4-5	Arsenic	7440-38-2	2.7		2.6	0.69	mg/Kg	7.07	NMED SSL	
0608B537-SB09-0405D-SO	280-16660-17	6/6/2011	4-5	Barium	7440-39-3	170		2.1	0.08	mg/Kg	4390	NMED SSL	
0608B537-SB09-0405D-SO	280-16660-17	6/6/2011	4-5	Cadmium	7440-43-9	0.055	J	0.53	0.043	mg/Kg	70.5	NMED SSL	
0608B537-SB09-0405D-SO	280-16660-17	6/6/2011	4-5	Chromium	7440-47-3	7.4		3.7	0.061	mg/Kg	96.6	NMED SSL	
0608B537-SB09-0405D-SO	280-16660-17	6/6/2011	4-5	Lead	7439-92-1	7.3		0.95	0.28	mg/Kg	200	EPA RSL	
0608B537-SB09-0405D-SO	280-16660-17	6/6/2011	4-5	Mercury	7439-97-6	0.0064	J	0.017	0.0055	mg/kg	20.7	NMED SSL	
0608B537-SB10-0001D-SO	280-16660-13	6/6/2011	0-1	Arsenic	7440-38-2	3.6		2.6	0.68	mg/Kg	7.07	NMED SSL	
0608B537-SB10-0001D-SO	280-16660-13	6/6/2011	0-1	Barium	7440-39-3	310		2.1	0.078	mg/Kg	4390	NMED SSL	
0608B537-SB10-0001D-SO	280-16660-13	6/6/2011	0-1	Cadmium	7440-43-9	0.12	J	0.52	0.042	mg/Kg	70.5	NMED SSL	
0608B537-SB10-0001D-SO	280-16660-13	6/6/2011	0-1	Chromium	7440-47-3	16		3.6	0.06	mg/Kg	96.6	NMED SSL	
0608B537-SB10-0001D-SO	280-16660-13	6/6/2011	0-1	Lead	7439-92-1	11		0.93	0.28	mg/Kg	200	EPA RSL	
0608B537-SB10-0405D-SO	280-16660-14	6/6/2011	4-5	Arsenic	7440-38-2	3.3		2.8	0.73	mg/Kg	7.07	NMED SSL	
0608B537-SB10-0405D-SO	280-16660-14	6/6/2011	4-5	Barium	7440-39-3	190		2.2	0.084	mg/Kg	4390	NMED SSL	
0608B537-SB10-0405D-SO	280-16660-14	6/6/2011	4-5	Cadmium	7440-43-9	0.12	J	0.55	0.045	mg/Kg	70.5	NMED SSL	
0608B537-SB10-0405D-SO	280-16660-14	6/6/2011	4-5	Chromium	7440-47-3	7.7		3.9	0.064	mg/Kg	96.6	NMED SSL	
0608B537-SB10-0405D-SO	280-16660-14	6/6/2011	4-5	Lead	7439-92-1	7.7		0.99	0.3	mg/Kg	200	EPA RSL	
0608B537-SB10-0405D-SO	280-16660-14	6/6/2011	4-5	Mercury	7439-97-6	0.0086	J	0.018	0.006	mg/kg	20.7	NMED SSL	
0608B537-SB11-0001D-SO	280-16660-20	6/6/2011	0-1	Arsenic	7440-38-2	2.7		2.6	0.67	mg/Kg	7.07	NMED SSL	
0608B537-SB11-0001D-SO	280-16660-20	6/6/2011	0-1	Barium	7440-39-3	160		2	0.078	mg/Kg	4390	NMED SSL	
0608B537-SB11-0001D-SO	280-16660-20	6/6/2011	0-1	Cadmium	7440-43-9	0.065	J	0.51	0.042	mg/Kg	70.5	NMED SSL	
0608B537-SB11-0001D-SO	280-16660-20	6/6/2011	0-1	Chromium	7440-47-3	8.7		3.6	0.059	mg/Kg	96.6	NMED SSL	
0608B537-SB11-0001D-SO	280-16660-20	6/6/2011	0-1	Lead	7439-92-1	7.7		0.92	0.28	mg/Kg	200	EPA RSL	
0608B537-SB11-0001D-SO	280-16660-20	6/6/2011	0-1	Mercury	7439-97-6	0.019		0.017	0.0056	mg/kg	20.7	NMED SSL	
0608B537-SB11-0405D-SO	280-16660-21	6/6/2011	4-5	Arsenic	7440-38-2	3.6		2.6	0.68	mg/Kg	7.07	NMED SSL	
0608B537-SB11-0405D-SO	280-16660-21	6/6/2011	4-5	Barium	7440-39-3	170		2.1	0.078	mg/Kg	4390	NMED SSL	
0608B537-SB11-0405D-SO	280-16660-21	6/6/2011	4-5	Cadmium	7440-43-9	0.092	J	0.51	0.042	mg/Kg	70.5	NMED SSL	
0608B537-SB11-0405D-SO	280-16660-21	6/6/2011	4-5	Chromium	7440-47-3	9.6		3.6	0.06	mg/Kg	96.6	NMED SSL	

Table B.3-7 Parcel 6 SWMU 8: Method 6010B/7471A Metals Soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0608B537-SB11-0405D-SO	280-16660-21	6/6/2011	4-5	Lead	7439-92-1	9.7		0.93	0.28	mg/Kg	200	EPA RSL	
0608B537-SB11-0405D-SO	280-16660-21	6/6/2011	4-5	Mercury	7439-97-6	0.0078	J	0.017	0.0056	mg/kg	20.7	NMED SSL	
0608B537-SB12-0001D-SO	280-16660-7	6/6/2011	0-1	Arsenic	7440-38-2	4.4		2.7	0.7	mg/Kg	7.07	NMED SSL	
0608B537-SB12-0001D-SO	280-16660-7	6/6/2011	0-1	Barium	7440-39-3	450	J	2.1	0.081	mg/Kg	4390	NMED SSL	
0608B537-SB12-0001D-SO	280-16660-7	6/6/2011	0-1	Cadmium	7440-43-9	0.12	J	0.53	0.044	mg/Kg	70.5	NMED SSL	
0608B537-SB12-0001D-SO	280-16660-7	6/6/2011	0-1	Chromium	7440-47-3	16		3.7	0.062	mg/Kg	96.6	NMED SSL	
0608B537-SB12-0001D-SO	280-16660-7	6/6/2011	0-1	Lead	7439-92-1	12		0.96	0.29	mg/Kg	200	EPA RSL	
0608B537-SB12-0001D-SO	280-16660-7	6/6/2011	0-1	Mercury	7439-97-6	0.034		0.02	0.0065	mg/kg	20.7	NMED SSL	
0608B537-SB12-0405D-SO	280-16660-1	6/6/2011	4-5	Arsenic	7440-38-2	3.4		2.4	0.62	mg/Kg	7.07	NMED SSL	
0608B537-SB12-0405D-SO	280-16660-1	6/6/2011	4-5	Barium	7440-39-3	140	J	1.9	0.072	mg/Kg	4390	NMED SSL	
0608B537-SB12-0405D-SO	280-16660-1	6/6/2011	4-5	Cadmium	7440-43-9	0.12	J	0.47	0.039	mg/Kg	70.5	NMED SSL	
0608B537-SB12-0405D-SO	280-16660-1	6/6/2011	4-5	Chromium	7440-47-3	7.9		3.3	0.055	mg/Kg	96.6	NMED SSL	
0608B537-SB12-0405D-SO	280-16660-1	6/6/2011	4-5	Lead	7439-92-1	7		0.85	0.25	mg/Kg	200	EPA RSL	
0608B537-SB13-0001D-SO	280-16660-22	6/6/2011	0-1	Arsenic	7440-38-2	3.6		2.6	0.68	mg/Kg	7.07	NMED SSL	
0608B537-SB13-0001D-SO	280-16660-22	6/6/2011	0-1	Barium	7440-39-3	200		2.1	0.078	mg/Kg	4390	NMED SSL	
0608B537-SB13-0001D-SO	280-16660-22	6/6/2011	0-1	Cadmium	7440-43-9	0.12	J	0.51	0.042	mg/Kg	70.5	NMED SSL	
0608B537-SB13-0001D-SO	280-16660-22	6/6/2011	0-1	Chromium	7440-47-3	14		3.6	0.06	mg/Kg	96.6	NMED SSL	
0608B537-SB13-0001D-SO	280-16660-22	6/6/2011	0-1	Lead	7439-92-1	11		0.93	0.28	mg/Kg	200	EPA RSL	
0608B537-SB13-0001D-SO	280-16660-22	6/6/2011	0-1	Mercury	7439-97-6	0.0063	J	0.019	0.0063	mg/kg	20.7	NMED SSL	
0608B537-SB13-0405D-SO	280-16660-23	6/6/2011	4-5	Arsenic	7440-38-2	2.2	J	2.6	0.69	mg/Kg	7.07	NMED SSL	
0608B537-SB13-0405D-SO	280-16660-23	6/6/2011	4-5	Barium	7440-39-3	180		2.1	0.079	mg/Kg	4390	NMED SSL	
0608B537-SB13-0405D-SO	280-16660-23	6/6/2011	4-5	Cadmium	7440-43-9	0.059	J	0.52	0.043	mg/Kg	70.5	NMED SSL	
0608B537-SB13-0405D-SO	280-16660-23	6/6/2011	4-5	Chromium	7440-47-3	5.8		3.7	0.061	mg/Kg	96.6	NMED SSL	
0608B537-SB13-0405D-SO	280-16660-23	6/6/2011	4-5	Lead	7439-92-1	5.4		0.94	0.28	mg/Kg	200	EPA RSL	
0608B537-SB14-0405D-SO	280-16327-3	5/26/2011	4-5	Arsenic	7440-38-2	4.7		2.9	0.77	mg/Kg	7.07	NMED SSL	
0608B537-SB14-0405D-SO	280-16327-3	5/26/2011	4-5	Barium	7440-39-3	310		2.3	0.089	mg/Kg	4390	NMED SSL	
0608B537-SB14-0405D-SO	280-16327-3	5/26/2011	4-5	Cadmium	7440-43-9	0.12	J	0.59	0.048	mg/Kg	70.5	NMED SSL	
0608B537-SB14-0405D-SO	280-16327-3	5/26/2011	4-5	Chromium	7440-47-3	13		4.1	0.068	mg/Kg	96.6	NMED SSL	
0608B537-SB14-0405D-SO	280-16327-3	5/26/2011	4-5	Lead	7439-92-1	15		1.1	0.32	mg/Kg	200	EPA RSL	
0608B537-SB14-0405D-SO	280-16327-3	5/26/2011	4-5	Mercury	7439-97-6	0.035		0.02	0.0064	mg/kg	20.7	NMED SSL	
0608B537-SB14-1415D-SO	280-16327-4	5/26/2011	14-15	Arsenic	7440-38-2	1.3	J	2.8	0.73	mg/Kg	7.07	NMED SSL	
0608B537-SB14-1415D-SO	280-16327-4	5/26/2011	14-15	Barium	7440-39-3	1600		11	0.42	mg/Kg	4390	NMED SSL	
0608B537-SB14-1415D-SO	280-16327-4	5/26/2011	14-15	Cadmium	7440-43-9	0.051	J	0.55	0.045	mg/Kg	70.5	NMED SSL	
0608B537-SB14-1415D-SO	280-16327-4	5/26/2011	14-15	Chromium	7440-47-3	18		3.9	0.064	mg/Kg	96.6	NMED SSL	

Table B.3-7 Parcel 6 SWMU 8: Method 6010B/7471A Metals Soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0608B537-SB14-1415D-SO	280-16327-4	5/26/2011	14-15	Lead	7439-92-1	8.7		1	0.3	mg/Kg	200	EPA RSL	
0608B537-SB14-2425D-SO	280-16327-5	5/26/2011	24-25	Arsenic	7440-38-2	0.95	J	2.6	0.7	mg/Kg	7.07	NMED SSL	
0608B537-SB14-2425D-SO	280-16327-5	5/26/2011	24-25	Barium	7440-39-3	150		2.1	0.081	mg/Kg	4390	NMED SSL	
0608B537-SB14-2425D-SO	280-16327-5	5/26/2011	24-25	Chromium	7440-47-3	13		3.7	0.061	mg/Kg	96.6	NMED SSL	
0608B537-SB14-2425D-SO	280-16327-5	5/26/2011	24-25	Lead	7439-92-1	6.1		0.95	0.29	mg/Kg	200	EPA RSL	
0608B537-SB14-6465D-SO	280-16327-6	5/26/2011	26-27	Arsenic	7440-38-2	1.5	J	2.6	0.69	mg/Kg	7.07	NMED SSL	
0608B537-SB14-6465D-SO	280-16327-6	5/26/2011	26-27	Barium	7440-39-3	270		2.1	0.08	mg/Kg	4390	NMED SSL	
0608B537-SB14-6465D-SO	280-16327-6	5/26/2011	26-27	Cadmium	7440-43-9	0.15	J	0.52	0.043	mg/Kg	70.5	NMED SSL	
0608B537-SB14-6465D-SO	280-16327-6	5/26/2011	26-27	Chromium	7440-47-3	16		3.7	0.061	mg/Kg	96.6	NMED SSL	
0608B537-SB14-6465D-SO	280-16327-6	5/26/2011	26-27	Lead	7439-92-1	8.4		0.94	0.28	mg/Kg	200	EPA RSL	
0608B537-SB14-6465D-SO	280-16327-6	5/26/2011	26-27	Silver	7440-22-4	0.25	J	1.6	0.17	mg/Kg	391	NMED SSL	
0608B537-SB15-0405D-SO	280-16296-1	5/25/2011	4-5	Arsenic	7440-38-2	1.8	J	2.4	0.63	mg/Kg	7.07	NMED SSL	
0608B537-SB15-0405D-SO	280-16296-1	5/25/2011	4-5	Barium	7440-39-3	160		1.9	0.073	mg/Kg	4390	NMED SSL	
0608B537-SB15-0405D-SO	280-16296-1	5/25/2011	4-5	Cadmium	7440-43-9	0.042	J	0.48	0.039	mg/Kg	70.5	NMED SSL	
0608B537-SB15-0405D-SO	280-16296-1	5/25/2011	4-5	Chromium	7440-47-3	5.4		3.4	0.056	mg/Kg	96.6	NMED SSL	
0608B537-SB15-0405D-SO	280-16296-1	5/25/2011	4-5	Lead	7439-92-1	5.2		0.86	0.26	mg/Kg	200	EPA RSL	
0608B537-SB15-0405D-SO	280-16296-1	5/25/2011	4-5	Mercury	7439-97-6	0.0086	J	0.016	0.0052	mg/kg	20.7	NMED SSL	
0608B537-SB15-0910D-SO	280-16296-3	5/25/2011	9-10	Arsenic	7440-38-2	2.9		2.5	0.65	mg/Kg	7.07	NMED SSL	
0608B537-SB15-0910D-SO	280-16296-3	5/25/2011	9-10	Barium	7440-39-3	180		2	0.075	mg/Kg	4390	NMED SSL	
0608B537-SB15-0910D-SO	280-16296-3	5/25/2011	9-10	Cadmium	7440-43-9	0.065	J	0.5	0.041	mg/Kg	70.5	NMED SSL	
0608B537-SB15-0910D-SO	280-16296-3	5/25/2011	9-10	Chromium	7440-47-3	9		3.5	0.058	mg/Kg	96.6	NMED SSL	
0608B537-SB15-0910D-SO	280-16296-3	5/25/2011	9-10	Lead	7439-92-1	8.6		0.89	0.27	mg/Kg	200	EPA RSL	
0608B537-SB15-0910D-SO	280-16296-3	5/25/2011	9-10	Mercury	7439-97-6	0.0059	J	0.018	0.0057	mg/kg	20.7	NMED SSL	
0608B537-SB15-1920D-SO	280-16296-4	5/25/2011	19-20	Arsenic	7440-38-2	3.2		2.7	0.71	mg/Kg	7.07	NMED SSL	
0608B537-SB15-1920D-SO	280-16296-4	5/25/2011	19-20	Barium	7440-39-3	310		2.2	0.082	mg/Kg	4390	NMED SSL	
0608B537-SB15-1920D-SO	280-16296-4	5/25/2011	19-20	Cadmium	7440-43-9	0.07	J	0.54	0.044	mg/Kg	70.5	NMED SSL	
0608B537-SB15-1920D-SO	280-16296-4	5/25/2011	19-20	Chromium	7440-47-3	13		3.8	0.062	mg/Kg	96.6	NMED SSL	
0608B537-SB15-1920D-SO	280-16296-4	5/25/2011	19-20	Lead	7439-92-1	10		0.97	0.29	mg/Kg	200	EPA RSL	
0608B537-SB15-1920D-SO	280-16296-4	5/25/2011	19-20	Mercury	7439-97-6	0.014	J	0.018	0.006	mg/kg	20.7	NMED SSL	
0608B537-SB15-6465D-SO	280-16327-7	5/26/2011	30-31	Arsenic	7440-38-2	2.7		2.6	0.68	mg/Kg	7.07	NMED SSL	
0608B537-SB15-6465D-SO	280-16327-7	5/26/2011	30-31	Barium	7440-39-3	190		2.1	0.079	mg/Kg	4390	NMED SSL	
0608B537-SB15-6465D-SO	280-16327-7	5/26/2011	30-31	Chromium	7440-47-3	7		3.6	0.06	mg/Kg	96.6	NMED SSL	
0608B537-SB15-6465D-SO	280-16327-7	5/26/2011	30-31	Lead	7439-92-1	6.5		0.93	0.28	mg/Kg	200	EPA RSL	
0608B537-SB15-6465D-SO	280-16327-7	5/26/2011	30-31	Mercury	7439-97-6	0.0085	J	0.016	0.0051	mg/kg	20.7	NMED SSL	

Notes:

CAS	Chemical Abstracts Service
DC	Direct Contact
DL	Detection Limit
DUP	Duplicate
EPA	Environmental Protection Agency
HH	Human Health
ID	Identification
LOD	Limit of Detection
LOQ	Limit of Quantiation
mg/kg	milligrams per kilogram
NMED	New Mexico Environment Department
NS	No Standard
RCRA	Resource Conservation and Recovery Act
RSL	Regional Screening Level
SSL	Soil Screening Level
SWMU	Soil Waste Management Unit

Lab Qualifier Codes:

Organics

J	Indicates that the analyte is positively identified and the result is less than the LOQ but greater than the DL.
U	Not detected at the LOD

Validation Qualifier Codes:

J	The analyte was positively identified; the associated numerical value is the approximate concentration
U	Not detected at or above the LOD.

Sample ID nomenclature:

Sample ID's consist of a combination of Parcel, AOC, additional site identifier, purpose of sample, increment number, sample depth, sample type, and matrix.

Example: 0608B537AEC-0.0-0.5D-SO
Parcel: 06
SWMU: 08

Additional Site Identifier: B537 (in this case it's Building 537)
Source of Sample: A (in this case it's Building 537 Area A)
Purpose of Sample: EC (excavation confirmation)
Sample Depth: Depth of samples will be designated with a 4-digit number, the first 2 digits starting depth, second 2 digits bottom depth (in this case 0.0 to 0.5 feet)
Sample Type: D (Discrete)
Sample Matrix: SO (soil) (in this case soil)
DUP = Field Duplicate (when applicable)

Screening level exceedances indicated by red result and a yellow highlighted "YES".

1. Excavated - Sample location was excavated during the Permittee-Initiated Interim Measure.

+ Screening Level Sources:

NMED SSL and EPA RSL	The HH DC Value selected is the lowest NMED Direct Contact Screening Level (for residents, industrial/occupational workers, and construction workers) via NMED Risk Assessment Guidance for Site Investigations and Remediation, November 2022 Revised. If there is no NMED Direct Contact Screening Level, the lowest EPA Residential RSL is selected for a target excess cancer risk level of 1 x 10-5 or target noncancer hazard quotient of 1.0 (November 2024). The most recent screening levels published by NMED and USEPA at the time the risk evaluation is conducted will be used in the risk evaluation.

Table B.3-8 Parcel 6 SWMU 8: Method 6860 Perchlorate Soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0608B537-SB01-0001D-SO	280-16703-1	6/7/2011	0-1	Perchlorate	14797-73-0	0.00026	J	0.00055	0.000044	mg/kg	54.8	NMED SSL	
0608B537-SB01-0405D-SO	280-16703-3	6/7/2011	4-5	Perchlorate	14797-73-0	0.000061	J	0.00054	0.000043	mg/kg	54.8	NMED SSL	
0608B537-SB02-0001D-SO	280-16327-9	5/26/2011	0-1	Perchlorate	14797-73-0	0.000054	J	0.00053	0.000043	mg/kg	54.8	NMED SSL	
0608B537-SB03-0001D-SO	280-16327-11	5/26/2011	0-1	Perchlorate	14797-73-0	0.000075	J	0.00054	0.000043	mg/kg	54.8	NMED SSL	
0608B537-SB05-0001D-SO	280-16660-2	6/6/2011	0-1	Perchlorate	14797-73-0	0.00068		0.00058	0.000047	mg/kg	54.8	NMED SSL	
0608B537-SB05-0405D-SO	280-16660-4	6/6/2011	4-5	Perchlorate	14797-73-0	0.001		0.00057	0.000045	mg/kg	54.8	NMED SSL	
0608B537-SB06-0001D-SO	280-16660-18	6/6/2011	0-1	Perchlorate	14797-73-0	0.0031		0.00059	0.000047	mg/kg	54.8	NMED SSL	
0608B537-SB06-0405D-SO	280-16660-19	6/6/2011	4-5	Perchlorate	14797-73-0	0.00038	J	0.00053	0.000042	mg/kg	54.8	NMED SSL	
0608B537-SB07-0001D-SO	280-16660-8	6/6/2011	0-1	Perchlorate	14797-73-0	0.0022		0.00058	0.000046	mg/kg	54.8	NMED SSL	
0608B537-SB08-0001D-SO	280-16660-10	6/6/2011	0-1	Perchlorate	14797-73-0	0.0024		0.00058	0.000047	mg/kg	54.8	NMED SSL	
0608B537-SB08-0405D-SO	280-16660-12	6/6/2011	4-5	Perchlorate	14797-73-0	0.0016		0.00051	0.000041	mg/kg	54.8	NMED SSL	
0608B537-SB09-0001D-SO	280-16660-16	6/6/2011	0-1	Perchlorate	14797-73-0	0.00094		0.00059	0.000048	mg/kg	54.8	NMED SSL	
0608B537-SB09-0405D-SO	280-16660-17	6/6/2011	4-5	Perchlorate	14797-73-0	0.00038	J	0.00053	0.000042	mg/kg	54.8	NMED SSL	
0608B537-SB10-0001D-SO	280-16660-13	6/6/2011	0-1	Perchlorate	14797-73-0	0.00084		0.00056	0.000045	mg/kg	54.8	NMED SSL	
0608B537-SB10-0405D-SO	280-16660-14	6/6/2011	4-5	Perchlorate	14797-73-0	0.00013	J	0.00057	0.000045	mg/kg	54.8	NMED SSL	
0608B537-SB11-0001D-SO	280-16660-20	6/6/2011	0-1	Perchlorate	14797-73-0	0.0027		0.00052	0.000042	mg/kg	54.8	NMED SSL	
0608B537-SB11-0405D-SO	280-16660-21	6/6/2011	4-5	Perchlorate	14797-73-0	0.00056		0.00052	0.000042	mg/kg	54.8	NMED SSL	
0608B537-SB12-0001D-SO	280-16660-7	6/6/2011	0-1	Perchlorate	14797-73-0	0.00092		0.00056	0.000044	mg/kg	54.8	NMED SSL	
0608B537-SB12-0405D-SO	280-16660-1	6/6/2011	4-5	Perchlorate	14797-73-0	0.0025		0.00052	0.000042	mg/kg	54.8	NMED SSL	
0608B537-SB13-0001D-SO	280-16660-22	6/6/2011	0-1	Perchlorate	14797-73-0	0.00024	J	0.00056	0.000045	mg/kg	54.8	NMED SSL	
0608B537-SB13-0405D-SO	280-16660-23	6/6/2011	4-5	Perchlorate	14797-73-0	0.00044	J	0.00052	0.000042	mg/kg	54.8	NMED SSL	
0608B537-SB14-0405D-SO	280-16327-3	5/26/2011	4-5	Perchlorate	14797-73-0	0.00042	J	0.00058	0.000046	mg/kg	54.8	NMED SSL	
0608B537-SB14-6465D-SO	280-16327-6	5/26/2011	26-27	Perchlorate	14797-73-0	0.00016	J	0.00053	0.000042	mg/kg	54.8	NMED SSL	
0608B537-SB15-0405D-SO	280-16296-1	5/25/2011	4-5	Perchlorate	14797-73-0	0.000067	J	0.00051	0.000041	mg/kg	54.8	NMED SSL	
0608B537-SB15-0910D-SO	280-16296-3	5/25/2011	9-10	Perchlorate	14797-73-0	0.00076		0.0005	0.00004	mg/kg	54.8	NMED SSL	
0608B537-SB15-1920D-SO	280-16296-4	5/25/2011	19-20	Perchlorate	14797-73-0	0.00021	J	0.00054	0.000043	mg/kg	54.8	NMED SSL	
0608B537-SB15-6465D-SO	280-16327-7	5/26/2011	30-31	Perchlorate	14797-73-0	0.000062	J	0.00051	0.000041	mg/kg	54.8	NMED SSL	

Notes:

CAS	Chemical Abstracts Service
DC	Direct Contact
DL	Detection Limit
DUP	Duplicate
EPA	Environmental Protection Agency
HH	Human Health
ID	Identification
LOD	Limit of Detection
LOQ	Limit of Quantiation
mg/kg	milligrams per kilogram
NMED	New Mexico Environment Department
NS	No Standard
RCRA	Resource Conservation and Recovery Act
RSL	Regional Screening Level
SSL	Soil Screening Level
SWMU	Soil Waste Management Unit

Lab Qualifier Codes:

Organics

J	Indicates that the analyte is positively identified and the result is less than the LOQ but greater than the DL.
U	Not detected at the LOD

Validation Qualifier Codes:

J	The analyte was positively identified; the associated numerical value is the approximate concentration
U	Not detected at or above the LOD.

Sample ID nomenclature:

Sample ID's consist of a combination of Parcel, AOC, additional site identifier, purpose of sample, increment number, sample depth, sample type, and matrix.

Example: 0608B537AEC-0.0-0.5D-SO
Parcel: 06
SWMU: 08

Additional Site Identifier: B537 (in this case it's Building 537)
Source of Sample: A (in this case it's Building 537 Area A)
Purpose of Sample: EC (excavation confirmation)
Sample Depth: Depth of samples will be designated with a 4-digit number, the first 2 digits starting depth, second 2 digits bottom depth (in this case 0.0 to 0.5 feet)
Sample Type: D (Discrete)
Sample Matrix: SO (soil) (in this case soil)
DUP = Field Duplicate (when applicable)

Screening level exceedances indicated by red result and a yellow highlighted "YES".

1. Excavated - Sample location was excavated during the Permittee-Initiated Interim Measure.

+ Screening Level Sources:

NMED SSL and EPA RSL	The HH DC Value selected is the lowest NMED Direct Contact Screening Level (for residents, industrial/occupational workers, and construction workers) via NMED Risk Assessment Guidance for Site Investigations and Remediation, November 2022 Revised. If there is no NMED Direct Contact Screening Level, the lowest EPA Residential RSL is selected for a target excess cancer risk level of 1 x 10-5 or target noncancer hazard quotient of 1.0 (November 2024). The most recent screening levels published by NMED and USEPA at the time the risk evaluation is conducted will be used in the risk evaluation.

Table B.3-9 SWMU 8 - Former Building 537 Excavation Confirmation Sampling Results (detections only), Method 8270 SIM Semi-Volatile Organic Compounds

SAMPLE ID	DATE COLLECTED	METHOD	CAS #	ANALYTE	RESULT	LOD	UNITS	LAB QUALIFIER	VALIDATION QUALIFIER	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	HH DC VALUE	EXCEEDS HH DC LEVEL?
0608B537BEC-0.0-0.5D-SO-2017 (Excavated)	10/4/2017	8270 SIM	56-55-3	Benzo(a)anthracene	0.65	0.027	mg/kg			NMED SSL	1.53	
0608B537BEC-0.0-0.5D-SO-2017 (Excavated)	10/4/2017	8270 SIM	50-32-8	Benzo(a)pyrene	0.58	0.027	mg/kg			NMED SSL	1.12	
0608B537BEC-0.0-0.5D-SO-2017 (Excavated)	10/4/2017	8270 SIM	205-99-2	Benzo(b)fluoranthene	1.2	0.027	mg/kg			NMED SSL	1.53	
0608B537BEC-0.0-0.5D-SO-2017 (Excavated)	10/4/2017	8270 SIM	207-08-9	Benzo(k)fluoranthene	0.24	0.027	mg/kg			NMED SSL	15.3	
0608B537BEC-0.0-0.5D-SO-2017 (Excavated)	10/4/2017	8270 SIM	218-01-9	Chrysene	0.73	0.027	mg/kg			NMED SSL	153	
0608B537BEC-0.0-0.5D-SO-2017 (Excavated)	10/4/2017	8270 SIM	53-70-3	Dibenz(a,h)anthracene	0.15	0.027	mg/kg			NMED SSL	0.153	
0608B537BEC-0.0-0.5D-SO-2017 (Excavated)	10/4/2017	8270 SIM	206-44-0	Fluoranthene	0.88	0.027	mg/kg			NMED SSL	2320	
0608B537BEC-0.0-0.5D-SO-2017 (Excavated)	10/4/2017	8270 SIM	193-39-5	Indeno(1,2,3-cd)pyrene	0.29	0.027	mg/kg			NMED SSL	1.53	
0608B537BEC-0.0-0.5D-SO-2017 (Excavated)	10/4/2017	8270 SIM	85-01-8	Phenanthrene	0.034	0.027	mg/kg	J	J	NMED SSL	1850	
0608B537BEC-0.0-0.5D-SO-2017 (Excavated)	10/4/2017	8270 SIM	129-00-0	Pyrene	0.77	0.027	mg/kg			NMED SSL	1740	
0608B537BEC-05D-SO-DUP	10/4/2017	8270 SIM	56-55-3	Benzo(a)anthracene	0.0057	0.0055	mg/kg	J	J	NMED SSL	1.53	
0608B537BEC-05D-SO-DUP	10/4/2017	8270 SIM	50-32-8	Benzo(a)pyrene	0.0077	0.0055	mg/kg	J	J	NMED SSL	1.12	
0608B537BEC-05D-SO-DUP	10/4/2017	8270 SIM	205-99-2	Benzo(b)fluoranthene	0.0064	0.0055	mg/kg	J	J	NMED SSL	1.53	
0608B537BEC-05D-SO-DUP	10/4/2017	8270 SIM	206-44-0	Fluoranthene	0.006	0.0055	mg/kg	J	J	NMED SSL	2320	
0608B537BEC-05D-SO-DUP	10/4/2017	8270 SIM	129-00-0	Pyrene	0.0045	0.0055	mg/kg	J	J	NMED SSL	1740	
0608B537BEC-06D-SO	10/4/2017	8270 SIM	120-12-7	Anthracene	0.0014	0.0027	mg/kg	J	J	NMED SSL	17400	
0608B537BEC-06D-SO	10/4/2017	8270 SIM	56-55-3	Benzo(a)anthracene	0.0051	0.0027	mg/kg	J	J	NMED SSL	1.53	
0608B537BEC-06D-SO	10/4/2017	8270 SIM	50-32-8	Benzo(a)pyrene	0.0057	0.0027	mg/kg	J	J	NMED SSL	1.12	
0608B537BEC-06D-SO	10/4/2017	8270 SIM	205-99-2	Benzo(b)fluoranthene	0.0059	0.0027	mg/kg	J	J	NMED SSL	1.53	
0608B537BEC-06D-SO	10/4/2017	8270 SIM	218-01-9	Chrysene	0.0038	0.0027	mg/kg	J	J	NMED SSL	153	
0608B537BEC-06D-SO	10/4/2017	8270 SIM	53-70-3	Dibenz(a,h)anthracene	0.0034	0.0027	mg/kg	J	J	NMED SSL	0.153	
0608B537BEC-06D-SO	10/4/2017	8270 SIM	206-44-0	Fluoranthene	0.011	0.0027	mg/kg	J	J	NMED SSL	2320	
0608B537BEC-06D-SO	10/4/2017	8270 SIM	193-39-5	Indeno(1,2,3-cd)pyrene	0.0023	0.0027	mg/kg	J	J	NMED SSL	1.53	
0608B537BEC-06D-SO	10/4/2017	8270 SIM	91-20-3	Naphthalene	0.0015	0.0027	mg/kg	J	J	NMED SSL	22.6	
0608B537BEC-06D-SO	10/4/2017	8270 SIM	85-01-8	Phenanthrene	0.0082	0.0027	mg/kg	J	J	NMED SSL	1850	
0608B537BEC-06D-SO	10/4/2017	8270 SIM	129-00-0	Pyrene	0.008	0.0027	mg/kg	J	J	NMED SSL	1740	
0608B537BEC-08D-SO	10/4/2017	8270 SIM	56-55-3	Benzo(a)anthracene	0.047	0.026	mg/kg	J	J	NMED SSL	1.53	
0608B537BEC-08D-SO	10/4/2017	8270 SIM	50-32-8	Benzo(a)pyrene	0.057	0.026	mg/kg	J	J	NMED SSL	1.12	
0608B537BEC-08D-SO	10/4/2017	8270 SIM	205-99-2	Benzo(b)fluoranthene	0.055	0.026	mg/kg	J	J	NMED SSL	1.53	
0608B537BEC-08D-SO	10/4/2017	8270 SIM	218-01-9	Chrysene	0.036	0.026	mg/kg	J	J	NMED SSL	153	
0608B537BEC-08D-SO	10/4/2017	8270 SIM	206-44-0	Fluoranthene	0.06	0.026	mg/kg	J	J	NMED SSL	2320	
0608B537BEC-08D-SO	10/4/2017	8270 SIM	193-39-5	Indeno(1,2,3-cd)pyrene	0.041	0.026	mg/kg	J	J	NMED SSL	1.53	
0608B537BEC-08D-SO	10/4/2017	8270 SIM	85-01-8	Phenanthrene	0.035	0.026	mg/kg	J	J	NMED SSL	1850	
0608B537BEC-08D-SO	10/4/2017	8270 SIM	129-00-0	Pyrene	0.056	0.026	mg/kg	J	J	NMED SSL	1740	
0608B537BEC-09D-SO	10/4/2017	8270 SIM	56-55-3	Benzo(a)anthracene	0.049	0.027	mg/kg	J	J	NMED SSL	1.53	
0608B537BEC-09D-SO	10/4/2017	8270 SIM	50-32-8	Benzo(a)pyrene	0.062	0.027	mg/kg	J	J	NMED SSL	1.12	

Table B.3-9 SWMU 8 - Former Building 537 Excavation Confirmation Sampling Results (detections only), Method 8270 SIM Semi-Volatile Organic Compounds

SAMPLE ID	DATE COLLECTED	METHOD	CAS #	ANALYTE	RESULT	LOD	UNITS	LAB QUALIFIER	VALIDATION QUALIFIER	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	HH DC VALUE	EXCEEDS HH DC LEVEL?
0608B537BEC-09D-SO	10/4/2017	8270 SIM	205-99-2	Benzo(b)fluoranthene	0.062	0.027	mg/kg	J	J	NMED SSL	1.53	
0608B537BEC-09D-SO	10/4/2017	8270 SIM	218-01-9	Chrysene	0.038	0.027	mg/kg	J	J	NMED SSL	153	
0608B537BEC-09D-SO	10/4/2017	8270 SIM	206-44-0	Fluoranthene	0.053	0.027	mg/kg	J	J	NMED SSL	2320	
0608B537BEC-09D-SO	10/4/2017	8270 SIM	85-01-8	Phenanthrene	0.025	0.027	mg/kg	J	J	NMED SSL	1850	
0608B537BEC-09D-SO	10/4/2017	8270 SIM	129-00-0	Pyrene	0.051	0.027	mg/kg	J	J	NMED SSL	1740	
0608B537BEC-2.0-2.5D-DUP	1/17/2018	8270 SIM	56-55-3	Benzo(a)anthracene	0.0027	0.0026	mg/kg	J		NMED SSL	1.53	
0608B537BEC-2.0-2.5D-DUP	1/17/2018	8270 SIM	50-32-8	Benzo(a)pyrene	0.0041	0.0026	mg/kg	J		NMED SSL	1.12	
0608B537BEC-2.0-2.5D-DUP	1/17/2018	8270 SIM	205-99-2	Benzo(b)fluoranthene	0.0025	0.0026	mg/kg	J		NMED SSL	1.53	
0608B537BEC-2.0-2.5D-DUP	1/17/2018	8270 SIM	207-08-9	Benzo(k)fluoranthene	0.0014	0.0026	mg/kg	J		NMED SSL	15.3	
0608B537BEC-2.0-2.5D-DUP	1/17/2018	8270 SIM	53-70-3	Dibenz(a,h)anthracene	0.0039	0.0026	mg/kg	J		NMED SSL	0.153	
0608B537BEC-2.0-2.5D-DUP	1/17/2018	8270 SIM	206-44-0	Fluoranthene	0.0017	0.0026	mg/kg	J		NMED SSL	2320	
0608B537BEC-2.0-2.5D-DUP	1/17/2018	8270 SIM	193-39-5	Indeno(1,2,3-cd)pyrene	0.0019	0.0026	mg/kg	J		NMED SSL	1.53	
0608B537BEC-2.0-2.5D-DUP	1/17/2018	8270 SIM	129-00-0	Pyrene	0.0018	0.0026	mg/kg	J		NMED SSL	1740	
0608B537BEC-2.0-2.5D-SO	1/17/2018	8270 SIM	56-55-3	Benzo(a)anthracene	0.0029	0.0026	mg/kg	J		NMED SSL	1.53	
0608B537BEC-2.0-2.5D-SO	1/17/2018	8270 SIM	50-32-8	Benzo(a)pyrene	0.0046	0.0026	mg/kg	J		NMED SSL	1.12	
0608B537BEC-2.0-2.5D-SO	1/17/2018	8270 SIM	205-99-2	Benzo(b)fluoranthene	0.0028	0.0026	mg/kg	J		NMED SSL	1.53	
0608B537BEC-2.0-2.5D-SO	1/17/2018	8270 SIM	207-08-9	Benzo(k)fluoranthene	0.002	0.0026	mg/kg	J		NMED SSL	15.3	
0608B537BEC-2.0-2.5D-SO	1/17/2018	8270 SIM	53-70-3	Dibenz(a,h)anthracene	0.0043	0.0026	mg/kg	J		NMED SSL	0.153	
0608B537BEC-2.0-2.5D-SO	1/17/2018	8270 SIM	206-44-0	Fluoranthene	0.0016	0.0026	mg/kg	J		NMED SSL	2320	
0608B537BEC-2.0-2.5D-SO	1/17/2018	8270 SIM	193-39-5	Indeno(1,2,3-cd)pyrene	0.0027	0.0026	mg/kg	J		NMED SSL	1.53	
0608B537BEC-2.0-2.5D-SO	1/17/2018	8270 SIM	129-00-0	Pyrene	0.0016	0.0026	mg/kg	J		NMED SSL	1740	
0608B537CEC01-0.0-0.5D-SO-2017	10/4/2017	8270 SIM	50-32-8	Benzo(a)pyrene	0.0038	0.0027	mg/kg	J	J	NMED SSL	1.12	
0608B537CEC01-0.0-0.5D-SO-2017	10/4/2017	8270 SIM	205-99-2	Benzo(b)fluoranthene	0.0016	0.0027	mg/kg	J	J	NMED SSL	1.53	
0608B537CEC01-0.0-0.5D-SO-2017	10/4/2017	8270 SIM	206-44-0	Fluoranthene	0.0015	0.0027	mg/kg	J	J	NMED SSL	2320	
0608B537CEC01-0.0-0.5D-SO-2017-DUP	10/4/2017	8270 SIM	50-32-8	Benzo(a)pyrene	0.0079	0.0055	mg/kg	J	J	NMED SSL	1.12	
0608B537CEC01-0.0-0.5D-SO-2017-DUP	10/4/2017	8270 SIM	205-99-2	Benzo(b)fluoranthene	0.0036	0.0055	mg/kg	J	J	NMED SSL	1.53	
0608B537CEC01-0.0-0.5D-SO-2017-DUP	10/4/2017	8270 SIM	206-44-0	Fluoranthene	0.0051	0.0055	mg/kg	J	J	NMED SSL	2320	
0608B537CEC01-0.0-0.5D-SO-2017-DUP	10/4/2017	8270 SIM	129-00-0	Pyrene	0.0039	0.0055	mg/kg	J	J	NMED SSL	1740	
0608B537CEC02-0.0-0.5D-SO-2017	10/4/2017	8270 SIM	50-32-8	Benzo(a)pyrene	0.0039	0.0027	mg/kg	J	J	NMED SSL	1.12	
0608B537CEC02-0.0-0.5D-SO-2017	10/4/2017	8270 SIM	205-99-2	Benzo(b)fluoranthene	0.002	0.0027	mg/kg	J	J	NMED SSL	1.53	
0608B537CEC02-0.0-0.5D-SO-2017	10/4/2017	8270 SIM	206-44-0	Fluoranthene	0.0026	0.0027	mg/kg	J	J	NMED SSL	2320	
0608B537CEC02-0.0-0.5D-SO-2017	10/4/2017	8270 SIM	129-00-0	Pyrene	0.002	0.0027	mg/kg	J	J	NMED SSL	1740	
0608B537CEC03-0.0-0.5D-SO-2017	10/5/2017	8270 SIM	56-55-3	Benzo(a)anthracene	0.035	0.013	mg/kg	J	J	NMED SSL	1.53	
0608B537CEC03-0.0-0.5D-SO-2017	10/5/2017	8270 SIM	50-32-8	Benzo(a)pyrene	0.031	0.013	mg/kg	J	J	NMED SSL	1.12	
0608B537CEC03-0.0-0.5D-SO-2017	10/5/2017	8270 SIM	205-99-2	Benzo(b)fluoranthene	0.046	0.013	mg/kg	J	J	NMED SSL	1.53	
0608B537CEC03-0.0-0.5D-SO-2017	10/5/2017	8270 SIM	207-08-9	Benzo(k)fluoranthene	0.012	0.013	mg/kg	J	J	NMED SSL	15.3	
0608B537CEC03-0.0-0.5D-SO-2017	10/5/2017	8270 SIM	218-01-9	Chrysene	0.028	0.013	mg/kg	J	J	NMED SSL	153	
0608B537CEC03-0.0-0.5D-SO-2017	10/5/2017	8270 SIM	206-44-0	Fluoranthene	0.041	0.013	mg/kg	J	J	NMED SSL	2320	
0608B537CEC03-0.0-0.5D-SO-2017	10/5/2017	8270 SIM	193-39-5	Indeno(1,2,3-cd)pyrene	0.029	0.013	mg/kg	J	J	NMED SSL	1.53	
0608B537CEC03-0.0-0.5D-SO-2017	10/5/2017	8270 SIM	85-01-8	Phenanthrene	0.0098	0.013	mg/kg	J	J	NMED SSL	1850	
0608B537CEC03-0.0-0.5D-SO-2017	10/5/2017	8270 SIM	129-00-0	Pyrene	0.036	0.013	mg/kg	J	J	NMED SSL	1740	

Table B.3-9 SWMU 8 - Former Building 537 Excavation Confirmation Sampling Results (detections only), Method 8270 SIM Semi-Volatile Organic Compounds

SAMPLE ID	DATE COLLECTED	METHOD	CAS #	ANALYTE	RESULT	LOD	UNITS	LAB QUALIFIER	VALIDATION QUALIFIER	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	HH DC VALUE	EXCEEDS HH DC LEVEL?
0608B537CEC-07D-SO-2017	10/5/2017	8270 SIM	120-12-7	Anthracene	0.017	0.014	mg/kg	J	J	NMED SSL	17400	
0608B537CEC-07D-SO-2017	10/5/2017	8270 SIM	56-55-3	Benzo(a)anthracene	0.05	0.014	mg/kg	J	J	NMED SSL	1.53	
0608B537CEC-07D-SO-2017	10/5/2017	8270 SIM	50-32-8	Benzo(a)pyrene	0.038	0.014	mg/kg	J	J	NMED SSL	1.12	
0608B537CEC-07D-SO-2017	10/5/2017	8270 SIM	205-99-2	Benzo(b)fluoranthene	0.061	0.014	mg/kg			NMED SSL	1.53	
0608B537CEC-07D-SO-2017	10/5/2017	8270 SIM	207-08-9	Benzo(k)fluoranthene	0.02	0.014	mg/kg	J	J	NMED SSL	15.3	
0608B537CEC-07D-SO-2017	10/5/2017	8270 SIM	218-01-9	Chrysene	0.051	0.014	mg/kg	J	J	NMED SSL	153	
0608B537CEC-07D-SO-2017	10/5/2017	8270 SIM	206-44-0	Fluoranthene	0.1	0.014	mg/kg			NMED SSL	2320	
0608B537CEC-07D-SO-2017	10/5/2017	8270 SIM	193-39-5	Indeno(1,2,3-cd)pyrene	0.026	0.014	mg/kg	J	J	NMED SSL	1.53	
0608B537CEC-07D-SO-2017	10/5/2017	8270 SIM	85-01-8	Phenanthrene	0.051	0.014	mg/kg	J	J	NMED SSL	1850	
0608B537CEC-07D-SO-2017	10/5/2017	8270 SIM	129-00-0	Pyrene	0.092	0.014	mg/kg			NMED SSL	1740	
0608B537CEC-08D-SO-2017	10/5/2017	8270 SIM	56-55-3	Benzo(a)anthracene	0.025	0.015	mg/kg	J	J	NMED SSL	1.53	
0608B537CEC-08D-SO-2017	10/5/2017	8270 SIM	50-32-8	Benzo(a)pyrene	0.019	0.015	mg/kg	J	J	NMED SSL	1.12	
0608B537CEC-08D-SO-2017	10/5/2017	8270 SIM	205-99-2	Benzo(b)fluoranthene	0.03	0.015	mg/kg	J	J	NMED SSL	1.53	
0608B537CEC-08D-SO-2017	10/5/2017	8270 SIM	218-01-9	Chrysene	0.015	0.015	mg/kg	J	J	NMED SSL	153	
0608B537CEC-08D-SO-2017	10/5/2017	8270 SIM	206-44-0	Fluoranthene	0.022	0.015	mg/kg	J	J	NMED SSL	2320	
0608B537CEC-08D-SO-2017	10/5/2017	8270 SIM	193-39-5	Indeno(1,2,3-cd)pyrene	0.015	0.015	mg/kg	J	J	NMED SSL	1.53	
0608B537CEC-08D-SO-2017	10/5/2017	8270 SIM	129-00-0	Pyrene	0.021	0.015	mg/kg	J	J	NMED SSL	1740	
0608B537CEC-09D-SO	10/4/2017	8270 SIM	56-55-3	Benzo(a)anthracene	0.033	0.028	mg/kg	J	J	NMED SSL	1.53	
0608B537CEC-09D-SO	10/4/2017	8270 SIM	50-32-8	Benzo(a)pyrene	0.055	0.028	mg/kg	J	J	NMED SSL	1.12	
0608B537CEC-09D-SO	10/4/2017	8270 SIM	205-99-2	Benzo(b)fluoranthene	0.05	0.028	mg/kg	J	J	NMED SSL	1.53	
0608B537CEC-09D-SO	10/4/2017	8270 SIM	218-01-9	Chrysene	0.031	0.028	mg/kg	J	J	NMED SSL	153	
0608B537CEC-09D-SO	10/4/2017	8270 SIM	206-44-0	Fluoranthene	0.051	0.028	mg/kg	J	J	NMED SSL	2320	
0608B537CEC-09D-SO	10/4/2017	8270 SIM	85-01-8	Phenanthrene	0.023	0.028	mg/kg	J	J	NMED SSL	1850	
0608B537CEC-09D-SO	10/4/2017	8270 SIM	129-00-0	Pyrene	0.046	0.028	mg/kg	J	J	NMED SSL	1740	
0608B537CEC-10D-SO	10/4/2017	8270 SIM	56-55-3	Benzo(a)anthracene	0.037	0.027	mg/kg	J	J	NMED SSL	1.53	
0608B537CEC-10D-SO	10/4/2017	8270 SIM	50-32-8	Benzo(a)pyrene	0.049	0.027	mg/kg	J	J	NMED SSL	1.12	
0608B537CEC-10D-SO	10/4/2017	8270 SIM	205-99-2	Benzo(b)fluoranthene	0.041	0.027	mg/kg	J	J	NMED SSL	1.53	
0608B537CEC-10D-SO	10/4/2017	8270 SIM	206-44-0	Fluoranthene	0.036	0.027	mg/kg	J	J	NMED SSL	2320	
0608B537CEC-10D-SO	10/4/2017	8270 SIM	85-01-8	Phenanthrene	0.02	0.027	mg/kg	J	J	NMED SSL	1850	
0608B537CEC-10D-SO	10/4/2017	8270 SIM	129-00-0	Pyrene	0.035	0.027	mg/kg	J	J	NMED SSL	1740	
0608B537CEC-11D-SO	10/4/2017	8270 SIM	120-12-7	Anthracene	0.015	0.013	mg/kg	J	J	NMED SSL	17400	
0608B537CEC-11D-SO	10/4/2017	8270 SIM	56-55-3	Benzo(a)anthracene	0.05	0.013	mg/kg	J	J	NMED SSL	1.53	
0608B537CEC-11D-SO	10/4/2017	8270 SIM	50-32-8	Benzo(a)pyrene	0.048	0.013	mg/kg	J	J	NMED SSL	1.12	
0608B537CEC-11D-SO	10/4/2017	8270 SIM	205-99-2	Benzo(b)fluoranthene	0.056	0.013	mg/kg			NMED SSL	1.53	
0608B537CEC-11D-SO	10/4/2017	8270 SIM	207-08-9	Benzo(k)fluoranthene	0.017	0.013	mg/kg	J	J	NMED SSL	15.3	
0608B537CEC-11D-SO	10/4/2017	8270 SIM	218-01-9	Chrysene	0.039	0.013	mg/kg	J	J	NMED SSL	153	
0608B537CEC-11D-SO	10/4/2017	8270 SIM	53-70-3	Dibenz(a,h)anthracene	0.019	0.013	mg/kg	J	J	NMED SSL	0.153	
0608B537CEC-11D-SO	10/4/2017	8270 SIM	206-44-0	Fluoranthene	0.1	0.013	mg/kg			NMED SSL	2320	
0608B537CEC-11D-SO	10/4/2017	8270 SIM	193-39-5	Indeno(1,2,3-cd)pyrene	0.022	0.013	mg/kg	J	J	NMED SSL	1.53	
0608B537CEC-11D-SO	10/4/2017	8270 SIM	85-01-8	Phenanthrene	0.076	0.013	mg/kg			NMED SSL	1850	
0608B537CEC-11D-SO	10/4/2017	8270 SIM	129-00-0	Pyrene	0.085	0.013	mg/kg			NMED SSL	1740	

Table B.3-9 SWMU 8 - Former Building 537 Excavation Confirmation Sampling Results (detections only), Method 8270 SIM Semi-Volatile Organic Compounds

SAMPLE ID	DATE COLLECTED	METHOD	CAS #	ANALYTE	RESULT	LOD	UNITS	LAB QUALIFIER	VALIDATION QUALIFIER	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	HH DC VALUE	EXCEEDS HH DC LEVEL?
0608B537CEC-12D-SO	10/4/2017	8270 SIM	50-32-8	Benzo(a)pyrene	0.0041	0.0027	mg/kg	J	J	NMED SSL	1.12	
0608B537CEC-12D-SO	10/4/2017	8270 SIM	205-99-2	Benzo(b)fluoranthene	0.0023	0.0027	mg/kg	J	J	NMED SSL	1.53	
0608B537CEC-12D-SO	10/4/2017	8270 SIM	206-44-0	Fluoranthene	0.0037	0.0027	mg/kg	J	J	NMED SSL	2320	
0608B537CEC-12D-SO	10/4/2017	8270 SIM	85-01-8	Phenanthrene	0.0027	0.0027	mg/kg	J	J	NMED SSL	1850	
0608B537CEC-12D-SO	10/4/2017	8270 SIM	129-00-0	Pyrene	0.0028	0.0027	mg/kg	J	J	NMED SSL	1740	
0608B537CEC-13D-SO	10/4/2017	8270 SIM	50-32-8	Benzo(a)pyrene	0.0034	0.0027	mg/kg	J	J	NMED SSL	1.12	
0608B537CEC-15D-SO	10/4/2017	8270 SIM	50-32-8	Benzo(a)pyrene	0.0034	0.0027	mg/kg	J	J	NMED SSL	1.12	
0608B537CEC-16D-SO (Excavated)	10/5/2017	8270 SIM	120-12-7	Anthracene	0.012	0.014	mg/kg	J	J	NMED SSL	17400	
0608B537CEC-16D-SO (Excavated)	10/5/2017	8270 SIM	56-55-3	Benzo(a)anthracene	0.091	0.014	mg/kg			NMED SSL	1.53	
0608B537CEC-16D-SO (Excavated)	10/5/2017	8270 SIM	50-32-8	Benzo(a)pyrene	0.079	0.014	mg/kg			NMED SSL	1.12	
0608B537CEC-16D-SO (Excavated)	10/5/2017	8270 SIM	205-99-2	Benzo(b)fluoranthene	0.12	0.014	mg/kg			NMED SSL	1.53	
0608B537CEC-16D-SO (Excavated)	10/5/2017	8270 SIM	207-08-9	Benzo(k)fluoranthene	0.034	0.014	mg/kg	J	J	NMED SSL	15.3	
0608B537CEC-16D-SO (Excavated)	10/5/2017	8270 SIM	218-01-9	Chrysene	0.081	0.014	mg/kg			NMED SSL	153	
0608B537CEC-16D-SO (Excavated)	10/5/2017	8270 SIM	53-70-3	Dibenz(a,h)anthracene	0.013	0.014	mg/kg	J	J	NMED SSL	0.153	
0608B537CEC-16D-SO (Excavated)	10/5/2017	8270 SIM	206-44-0	Fluoranthene	0.21	0.014	mg/kg			NMED SSL	2320	
0608B537CEC-16D-SO (Excavated)	10/5/2017	8270 SIM	193-39-5	Indeno(1,2,3-cd)pyrene	0.051	0.014	mg/kg	J	J	NMED SSL	1.53	
0608B537CEC-16D-SO (Excavated)	10/5/2017	8270 SIM	85-01-8	Phenanthrene	0.068	0.014	mg/kg			NMED SSL	1850	
0608B537CEC-16D-SO (Excavated)	10/5/2017	8270 SIM	129-00-0	Pyrene	0.16	0.014	mg/kg			NMED SSL	1740	
0608B537DEC01-0.0-0.5D-SO-2017	10/4/2017	8270 SIM	56-55-3	Benzo(a)anthracene	0.01	0.0054	mg/kg	J	J	NMED SSL	1.53	
0608B537DEC01-0.0-0.5D-SO-2017	10/4/2017	8270 SIM	50-32-8	Benzo(a)pyrene	0.012	0.0054	mg/kg	J	J	NMED SSL	1.12	
0608B537DEC01-0.0-0.5D-SO-2017	10/4/2017	8270 SIM	205-99-2	Benzo(b)fluoranthene	0.012	0.0054	mg/kg	J	J	NMED SSL	1.53	
0608B537DEC01-0.0-0.5D-SO-2017	10/4/2017	8270 SIM	218-01-9	Chrysene	0.0057	0.0054	mg/kg	J	J	NMED SSL	153	
0608B537DEC01-0.0-0.5D-SO-2017	10/4/2017	8270 SIM	53-70-3	Dibenz(a,h)anthracene	0.0069	0.0054	mg/kg	J	J	NMED SSL	0.153	
0608B537DEC01-0.0-0.5D-SO-2017	10/4/2017	8270 SIM	206-44-0	Fluoranthene	0.013	0.0054	mg/kg	J	J	NMED SSL	2320	
0608B537DEC01-0.0-0.5D-SO-2017	10/4/2017	8270 SIM	193-39-5	Indeno(1,2,3-cd)pyrene	0.0044	0.0054	mg/kg	J	J	NMED SSL	1.53	
0608B537DEC01-0.0-0.5D-SO-2017	10/4/2017	8270 SIM	85-01-8	Phenanthrene	0.0055	0.0054	mg/kg	J	J	NMED SSL	1850	
0608B537DEC01-0.0-0.5D-SO-2017	10/4/2017	8270 SIM	129-00-0	Pyrene	0.01	0.0054	mg/kg	J	J	NMED SSL	1740	
0608B537DEC05-0.0-0.5D-SO-2017 (Excavated)	10/4/2017	8270 SIM	53-70-3	Dibenz(a,h)anthracene	0.0034	0.0028	mg/kg	J	J	NMED SSL	0.153	
0608B537DEC-12D-SO	10/4/2017	8270 SIM	56-55-3	Benzo(a)anthracene	0.017	0.0058	mg/kg	J	J	NMED SSL	1.53	
0608B537DEC-12D-SO	10/4/2017	8270 SIM	50-32-8	Benzo(a)pyrene	0.015	0.0058	mg/kg	J	J	NMED SSL	1.12	
0608B537DEC-12D-SO	10/4/2017	8270 SIM	205-99-2	Benzo(b)fluoranthene	0.026	0.0058	mg/kg			NMED SSL	1.53	
0608B537DEC-12D-SO	10/4/2017	8270 SIM	207-08-9	Benzo(k)fluoranthene	0.007	0.0058	mg/kg	J	J	NMED SSL	15.3	
0608B537DEC-12D-SO	10/4/2017	8270 SIM	218-01-9	Chrysene	0.014	0.0058	mg/kg	J	J	NMED SSL	153	
0608B537DEC-12D-SO	10/4/2017	8270 SIM	206-44-0	Fluoranthene	0.023	0.0058	mg/kg			NMED SSL	2320	
0608B537DEC-12D-SO	10/4/2017	8270 SIM	193-39-5	Indeno(1,2,3-cd)pyrene	0.0093	0.0058	mg/kg	J	J	NMED SSL	1.53	
0608B537DEC-12D-SO	10/4/2017	8270 SIM	85-01-8	Phenanthrene	0.0062	0.0058	mg/kg	J	J	NMED SSL	1850	
0608B537DEC-12D-SO	10/4/2017	8270 SIM	129-00-0	Pyrene	0.02	0.0058	mg/kg	J	J	NMED SSL	1740	
0608B537DEC-12D-SO-DUP	10/4/2017	8270 SIM	56-55-3	Benzo(a)anthracene	0.021	0.0086	mg/kg	J	J	NMED SSL	1.53	
0608B537DEC-12D-SO-DUP	10/4/2017	8270 SIM	50-32-8	Benzo(a)pyrene	0.019	0.0086	mg/kg	J	J	NMED SSL	1.12	
0608B537DEC-12D-SO-DUP	10/4/2017	8270 SIM	205-99-2	Benzo(b)fluoranthene	0.032	0.0086	mg/kg	J	J	NMED SSL	1.53	

Table B.3-9 SWMU 8 - Former Building 537 Excavation Confirmation Sampling Results (detections only), Method 8270 SIM Semi-Volatile Organic Compounds

SAMPLE ID	DATE COLLECTED	METHOD	CAS #	ANALYTE	RESULT	LOD	UNITS	LAB QUALIFIER	VALIDATION QUALIFIER	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	HH DC VALUE	EXCEEDS HH DC LEVEL?
0608B537DEC-12D-SO-DUP	10/4/2017	8270 SIM	207-08-9	Benzo(k)fluoranthene	0.0092	0.0086	mg/kg	J	J	NMED SSL	15.3	
0608B537DEC-12D-SO-DUP	10/4/2017	8270 SIM	218-01-9	Chrysene	0.018	0.0086	mg/kg	J	J	NMED SSL	153	
0608B537DEC-12D-SO-DUP	10/4/2017	8270 SIM	206-44-0	Fluoranthene	0.033	0.0086	mg/kg	J	J	NMED SSL	2320	
0608B537DEC-12D-SO-DUP	10/4/2017	8270 SIM	193-39-5	Indeno(1,2,3-cd)pyrene	0.012	0.0086	mg/kg	J	J	NMED SSL	1.53	
0608B537DEC-12D-SO-DUP	10/4/2017	8270 SIM	85-01-8	Phenanthrene	0.014	0.0086	mg/kg	J	J	NMED SSL	1850	
0608B537DEC-12D-SO-DUP	10/4/2017	8270 SIM	129-00-0	Pyrene	0.027	0.0086	mg/kg	J	J	NMED SSL	1740	
0608B537DEC-13D-SO	10/4/2017	8270 SIM	56-55-3	Benzo(a)anthracene	0.013	0.0081	mg/kg	J	J	NMED SSL	1.53	
0608B537DEC-13D-SO	10/4/2017	8270 SIM	50-32-8	Benzo(a)pyrene	0.012	0.0081	mg/kg	J	J	NMED SSL	1.12	
0608B537DEC-13D-SO	10/4/2017	8270 SIM	205-99-2	Benzo(b)fluoranthene	0.017	0.0081	mg/kg	J	J	NMED SSL	1.53	
0608B537DEC-13D-SO	10/4/2017	8270 SIM	218-01-9	Chrysene	0.0089	0.0081	mg/kg	J	J	NMED SSL	153	
0608B537DEC-13D-SO	10/4/2017	8270 SIM	206-44-0	Fluoranthene	0.011	0.0081	mg/kg	J	J	NMED SSL	2320	
0608B537DEC-13D-SO	10/4/2017	8270 SIM	193-39-5	Indeno(1,2,3-cd)pyrene	0.007	0.0081	mg/kg	J	J	NMED SSL	1.53	
0608B537DEC-13D-SO	10/4/2017	8270 SIM	129-00-0	Pyrene	0.011	0.0081	mg/kg	J	J	NMED SSL	1740	
0608B537DEC-14D-SO	10/4/2017	8270 SIM	205-99-2	Benzo(b)fluoranthene	0.0019	0.0026	mg/kg	J	J	NMED SSL	1.53	
0608B537DEC-15D-SO	10/4/2017	8270 SIM	205-99-2	Benzo(b)fluoranthene	0.0021	0.0027	mg/kg	J	J	NMED SSL	1.53	
0608B537DEC-16D-SO	10/4/2017	8270 SIM	56-55-3	Benzo(a)anthracene	0.0054	0.0055	mg/kg	J	J	NMED SSL	1.53	
0608B537DEC-16D-SO	10/4/2017	8270 SIM	205-99-2	Benzo(b)fluoranthene	0.0069	0.0055	mg/kg	J	J	NMED SSL	1.53	
0608B537DEC-16D-SO	10/4/2017	8270 SIM	206-44-0	Fluoranthene	0.0042	0.0055	mg/kg	J	J	NMED SSL	2320	
0608B537DEC-16D-SO	10/4/2017	8270 SIM	129-00-0	Pyrene	0.004	0.0055	mg/kg	J	J	NMED SSL	1740	
0608B537DEC-18D-SO	10/4/2017	8270 SIM	56-55-3	Benzo(a)anthracene	0.0032	0.0028	mg/kg	J	J	NMED SSL	1.53	
0608B537DEC-18D-SO	10/4/2017	8270 SIM	50-32-8	Benzo(a)pyrene	0.0023	0.0028	mg/kg	J	J	NMED SSL	1.12	
0608B537DEC-18D-SO	10/4/2017	8270 SIM	205-99-2	Benzo(b)fluoranthene	0.0047	0.0028	mg/kg	J	J	NMED SSL	1.53	
0608B537DEC-18D-SO	10/4/2017	8270 SIM	218-01-9	Chrysene	0.0026	0.0028	mg/kg	J	J	NMED SSL	153	
0608B537DEC-18D-SO	10/4/2017	8270 SIM	206-44-0	Fluoranthene	0.0043	0.0028	mg/kg	J	J	NMED SSL	2320	
0608B537DEC-18D-SO	10/4/2017	8270 SIM	193-39-5	Indeno(1,2,3-cd)pyrene	0.002	0.0028	mg/kg	J	J	NMED SSL	1.53	
0608B537DEC-18D-SO	10/4/2017	8270 SIM	129-00-0	Pyrene	0.0035	0.0028	mg/kg	J	J	NMED SSL	1740	
0608B537DEC-21D-SO	10/4/2017	8270 SIM	56-55-3	Benzo(a)anthracene	0.01	0.0053	mg/kg	J	J	NMED SSL	1.53	
0608B537DEC-21D-SO	10/4/2017	8270 SIM	50-32-8	Benzo(a)pyrene	0.0063	0.0053	mg/kg	J	J	NMED SSL	1.12	
0608B537DEC-21D-SO	10/4/2017	8270 SIM	205-99-2	Benzo(b)fluoranthene	0.0099	0.0053	mg/kg	J	J	NMED SSL	1.53	
0608B537DEC-21D-SO	10/4/2017	8270 SIM	218-01-9	Chrysene	0.0067	0.0053	mg/kg	J	J	NMED SSL	153	
0608B537DEC-21D-SO	10/4/2017	8270 SIM	206-44-0	Fluoranthene	0.013	0.0053	mg/kg	J	J	NMED SSL	2320	
0608B537DEC-21D-SO	10/4/2017	8270 SIM	85-01-8	Phenanthrene	0.0064	0.0053	mg/kg	J	J	NMED SSL	1850	
0608B537DEC-21D-SO	10/4/2017	8270 SIM	129-00-0	Pyrene	0.012	0.0053	mg/kg	J	J	NMED SSL	1740	
0608B537EEC01-0.0-0.5D-SO-2017	10/5/2017	8270 SIM	56-55-3	Benzo(a)anthracene	0.0032	0.0028	mg/kg	J	J	NMED SSL	1.53	
0608B537EEC01-0.0-0.5D-SO-2017	10/5/2017	8270 SIM	205-99-2	Benzo(b)fluoranthene	0.0022	0.0028	mg/kg	J	J	NMED SSL	1.53	
0608B537EEC01-0.0-0.5D-SO-2017	10/5/2017	8270 SIM	206-44-0	Fluoranthene	0.0024	0.0028	mg/kg	J	J	NMED SSL	2320	
0608B537EEC01-0.0-0.5D-SO-2017	10/5/2017	8270 SIM	129-00-0	Pyrene	0.0019	0.0028	mg/kg	J	J	NMED SSL	1740	
0608B537EEC-06D-SO	10/5/2017	8270 SIM	56-55-3	Benzo(a)anthracene	0.0099	0.0054	mg/kg	J	J	NMED SSL	1.53	
0608B537EEC-06D-SO	10/5/2017	8270 SIM	50-32-8	Benzo(a)pyrene	0.0087	0.0054	mg/kg	J	J	NMED SSL	1.12	
0608B537EEC-06D-SO	10/5/2017	8270 SIM	205-99-2	Benzo(b)fluoranthene	0.012	0.0054	mg/kg	J	J	NMED SSL	1.53	
0608B537EEC-06D-SO	10/5/2017	8270 SIM	207-08-9	Benzo(k)fluoranthene	0.0036	0.0054	mg/kg	J	J	NMED SSL	15.3	

Table B.3-9 SWMU 8 - Former Building 537 Excavation Confirmation Sampling Results (detections only), Method 8270 SIM Semi-Volatile Organic Compounds

SAMPLE ID	DATE COLLECTED	METHOD	CAS #	ANALYTE	RESULT	LOD	UNITS	LAB QUALIFIER	VALIDATION QUALIFIER	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	HH DC VALUE	EXCEEDS HH DC LEVEL?
0608B537EEC-06D-SO	10/5/2017	8270 SIM	218-01-9	Chrysene	0.0078	0.0054	mg/kg	J	J	NMED SSL	153	
0608B537EEC-06D-SO	10/5/2017	8270 SIM	206-44-0	Fluoranthene	0.015	0.0054	mg/kg	J	J	NMED SSL	2320	
0608B537EEC-06D-SO	10/5/2017	8270 SIM	193-39-5	Indeno(1,2,3-cd)pyrene	0.0046	0.0054	mg/kg	J	J	NMED SSL	1.53	
0608B537EEC-06D-SO	10/5/2017	8270 SIM	85-01-8	Phenanthrene	0.0087	0.0054	mg/kg	J	J	NMED SSL	1850	
0608B537EEC-06D-SO	10/5/2017	8270 SIM	129-00-0	Pyrene	0.012	0.0054	mg/kg	J	J	NMED SSL	1740	
0608B537EEC-08D-SO	10/5/2017	8270 SIM	56-55-3	Benzo(a)anthracene	0.0058	0.0029	mg/kg	J	J	NMED SSL	1.53	
0608B537EEC-08D-SO	10/5/2017	8270 SIM	50-32-8	Benzo(a)pyrene	0.0033	0.0029	mg/kg	J	J	NMED SSL	1.12	
0608B537EEC-08D-SO	10/5/2017	8270 SIM	205-99-2	Benzo(b)fluoranthene	0.0074	0.0029	mg/kg	J	J	NMED SSL	1.53	
0608B537EEC-08D-SO	10/5/2017	8270 SIM	218-01-9	Chrysene	0.0044	0.0029	mg/kg	J	J	NMED SSL	153	
0608B537EEC-08D-SO	10/5/2017	8270 SIM	206-44-0	Fluoranthene	0.009	0.0029	mg/kg	J	J	NMED SSL	2320	
0608B537EEC-08D-SO	10/5/2017	8270 SIM	193-39-5	Indeno(1,2,3-cd)pyrene	0.0026	0.0029	mg/kg	J	J	NMED SSL	1.53	
0608B537EEC-08D-SO	10/5/2017	8270 SIM	85-01-8	Phenanthrene	0.0051	0.0029	mg/kg	J	J	NMED SSL	1850	
0608B537EEC-08D-SO	10/5/2017	8270 SIM	129-00-0	Pyrene	0.0071	0.0029	mg/kg	J	J	NMED SSL	1740	
0608B537EEC-09D-SO	10/5/2017	8270 SIM	56-55-3	Benzo(a)anthracene	0.0035	0.0030	mg/kg	J	J	NMED SSL	1.53	
0608B537EEC-09D-SO	10/5/2017	8270 SIM	50-32-8	Benzo(a)pyrene	0.002	0.0030	mg/kg	J	J	NMED SSL	1.12	
0608B537EEC-09D-SO	10/5/2017	8270 SIM	205-99-2	Benzo(b)fluoranthene	0.003	0.0030	mg/kg	J	J	NMED SSL	1.53	
0608B537EEC-09D-SO	10/5/2017	8270 SIM	206-44-0	Fluoranthene	0.0043	0.0030	mg/kg	J	J	NMED SSL	2320	
0608B537EEC-09D-SO	10/5/2017	8270 SIM	129-00-0	Pyrene	0.0036	0.0030	mg/kg	J	J	NMED SSL	1740	
0608B537EEC-10D-SO	10/5/2017	8270 SIM	56-55-3	Benzo(a)anthracene	0.048	0.0053	mg/kg			NMED SSL	1.53	
0608B537EEC-10D-SO	10/5/2017	8270 SIM	50-32-8	Benzo(a)pyrene	0.05	0.0053	mg/kg			NMED SSL	1.12	
0608B537EEC-10D-SO	10/5/2017	8270 SIM	205-99-2	Benzo(b)fluoranthene	0.063	0.0053	mg/kg			NMED SSL	1.53	
0608B537EEC-10D-SO	10/5/2017	8270 SIM	207-08-9	Benzo(k)fluoranthene	0.018	0.0053	mg/kg	J	J	NMED SSL	15.3	
0608B537EEC-10D-SO	10/5/2017	8270 SIM	218-01-9	Chrysene	0.034	0.0053	mg/kg			NMED SSL	153	
0608B537EEC-10D-SO	10/5/2017	8270 SIM	53-70-3	Dibenz(a,h)anthracene	0.0069	0.0053	mg/kg	J	J	NMED SSL	0.153	
0608B537EEC-10D-SO	10/5/2017	8270 SIM	206-44-0	Fluoranthene	0.055	0.0053	mg/kg			NMED SSL	2320	
0608B537EEC-10D-SO	10/5/2017	8270 SIM	193-39-5	Indeno(1,2,3-cd)pyrene	0.025	0.0053	mg/kg			NMED SSL	1.53	
0608B537EEC-10D-SO	10/5/2017	8270 SIM	129-00-0	Pyrene	0.069	0.0053	mg/kg			NMED SSL	1740	
0608B537FEC-0.0-0.5D-SO	10/16/2015	8270 SIM	56-55-3	Benzo(a)anthracene	0.017	0.0078	mg/kg	J	J	NMED SSL	1.53	
0608B537FEC-0.0-0.5D-SO	10/16/2015	8270 SIM	50-32-8	Benzo(a)pyrene	0.014	0.0078	mg/kg	J	J	NMED SSL	1.12	
0608B537FEC-0.0-0.5D-SO	10/16/2015	8270 SIM	205-99-2	Benzo(b)fluoranthene	0.03	0.0078	mg/kg	J	J	NMED SSL	1.53	
0608B537FEC-0.0-0.5D-SO	10/16/2015	8270 SIM	207-08-9	Benzo(k)fluoranthene	0.007	0.0078	mg/kg	J	J	NMED SSL	15.3	
0608B537FEC-0.0-0.5D-SO	10/16/2015	8270 SIM	218-01-9	Chrysene	0.019	0.0078	mg/kg	J	J	NMED SSL	153	
0608B537FEC-0.0-0.5D-SO	10/16/2015	8270 SIM	206-44-0	Fluoranthene	0.032	0.0078	mg/kg			NMED SSL	2320	
0608B537FEC-0.0-0.5D-SO	10/16/2015	8270 SIM	193-39-5	Indeno(1,2,3-cd)pyrene	0.013	0.0078	mg/kg	J	J	NMED SSL	1.53	
0608B537FEC-0.0-0.5D-SO	10/16/2015	8270 SIM	85-01-8	Phenanthrene	0.015	0.0078	mg/kg	J	J	NMED SSL	1850	
0608B537FEC-0.0-0.5D-SO	10/16/2015	8270 SIM	129-00-0	Pyrene	0.025	0.0078	mg/kg	J	J	NMED SSL	1740	
0608B537FEC-01D-SO	10/16/2015	8270 SIM	56-55-3	Benzo(a)anthracene	0.02	0.0078	mg/kg	J	J	NMED SSL	1.53	
0608B537FEC-01D-SO	10/16/2015	8270 SIM	50-32-8	Benzo(a)pyrene	0.017	0.0078	mg/kg	J	J	NMED SSL	1.12	
0608B537FEC-01D-SO	10/16/2015	8270 SIM	205-99-2	Benzo(b)fluoranthene	0.031	0.0078	mg/kg	J	J	NMED SSL	1.53	
0608B537FEC-01D-SO	10/16/2015	8270 SIM	207-08-9	Benzo(k)fluoranthene	0.0069	0.0078	mg/kg	J	J	NMED SSL	15.3	
0608B537FEC-01D-SO	10/16/2015	8270 SIM	218-01-9	Chrysene	0.021	0.0078	mg/kg	J	J	NMED SSL	153	

Table B.3-9 SWMU 8 - Former Building 537 Excavation Confirmation Sampling Results (detections only), Method 8270 SIM Semi-Volatile Organic Compounds

SAMPLE ID	DATE COLLECTED	METHOD	CAS #	ANALYTE	RESULT	LOD	UNITS	LAB QUALIFIER	VALIDATION QUALIFIER	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	HH DC VALUE	EXCEEDS HH DC LEVEL?
0608B537FEC-01D-SO	10/16/2015	8270 SIM	206-44-0	Fluoranthene	0.043	0.0078	mg/kg			NMED SSL	2320	
0608B537FEC-01D-SO	10/16/2015	8270 SIM	193-39-5	Indeno(1,2,3-cd)pyrene	0.012	0.0078	mg/kg	J	J	NMED SSL	1.53	
0608B537FEC-01D-SO	10/16/2015	8270 SIM	85-01-8	Phenanthrene	0.02	0.0078	mg/kg	J	J	NMED SSL	1850	
0608B537FEC-01D-SO	10/16/2015	8270 SIM	129-00-0	Pyrene	0.033	0.0078	mg/kg			NMED SSL	1740	
0608B537FEC-02D-DUP	10/16/2015	8270 SIM	50-32-8	Benzo(a)pyrene	0.0021	0.0026	mg/kg	J	J	NMED SSL	1.12	
0608B537FEC-02D-DUP	10/16/2015	8270 SIM	205-99-2	Benzo(b)fluoranthene	0.0037	0.0026	mg/kg	J	J	NMED SSL	1.53	
0608B537FEC-02D-DUP	10/16/2015	8270 SIM	218-01-9	Chrysene	0.0024	0.0026	mg/kg	J	J	NMED SSL	153	
0608B537FEC-02D-DUP	10/16/2015	8270 SIM	206-44-0	Fluoranthene	0.0044	0.0026	mg/kg	J	J	NMED SSL	2320	
0608B537FEC-02D-DUP	10/16/2015	8270 SIM	85-01-8	Phenanthrene	0.0026	0.0026	mg/kg	J	J	NMED SSL	1850	
0608B537FEC-02D-DUP	10/16/2015	8270 SIM	129-00-0	Pyrene	0.0037	0.0026	mg/kg	J	J	NMED SSL	1740	
0608B537FEC-02D-SO	10/16/2015	8270 SIM	56-55-3	Benzo(a)anthracene	0.0028	0.0026	mg/kg	J	J	NMED SSL	1.53	
0608B537FEC-02D-SO	10/16/2015	8270 SIM	50-32-8	Benzo(a)pyrene	0.003	0.0026	mg/kg	J	J	NMED SSL	1.12	
0608B537FEC-02D-SO	10/16/2015	8270 SIM	205-99-2	Benzo(b)fluoranthene	0.0053	0.0026	mg/kg	J	J	NMED SSL	1.53	
0608B537FEC-02D-SO	10/16/2015	8270 SIM	218-01-9	Chrysene	0.0028	0.0026	mg/kg	J	J	NMED SSL	153	
0608B537FEC-02D-SO	10/16/2015	8270 SIM	206-44-0	Fluoranthene	0.0048	0.0026	mg/kg	J	J	NMED SSL	2320	
0608B537FEC-02D-SO	10/16/2015	8270 SIM	193-39-5	Indeno(1,2,3-cd)pyrene	0.0026	0.0026	mg/kg	J	J	NMED SSL	1.53	
0608B537FEC-02D-SO	10/16/2015	8270 SIM	129-00-0	Pyrene	0.0047	0.0026	mg/kg	J	J	NMED SSL	1740	
0608B537FEC-03D-SO	10/16/2015	8270 SIM	56-55-3	Benzo(a)anthracene	0.022	0.0079	mg/kg	J	J	NMED SSL	1.53	
0608B537FEC-03D-SO	10/16/2015	8270 SIM	50-32-8	Benzo(a)pyrene	0.016	0.0079	mg/kg	J	J	NMED SSL	1.12	
0608B537FEC-03D-SO	10/16/2015	8270 SIM	205-99-2	Benzo(b)fluoranthene	0.032	0.0079	mg/kg			NMED SSL	1.53	
0608B537FEC-03D-SO	10/16/2015	8270 SIM	207-08-9	Benzo(k)fluoranthene	0.0091	0.0079	mg/kg	J	J	NMED SSL	15.3	
0608B537FEC-03D-SO	10/16/2015	8270 SIM	218-01-9	Chrysene	0.021	0.0079	mg/kg	J	J	NMED SSL	153	
0608B537FEC-03D-SO	10/16/2015	8270 SIM	206-44-0	Fluoranthene	0.054	0.0079	mg/kg			NMED SSL	2320	
0608B537FEC-03D-SO	10/16/2015	8270 SIM	193-39-5	Indeno(1,2,3-cd)pyrene	0.011	0.0079	mg/kg	J	J	NMED SSL	1.53	
0608B537FEC-03D-SO	10/16/2015	8270 SIM	85-01-8	Phenanthrene	0.028	0.0079	mg/kg	J	J	NMED SSL	1850	
0608B537FEC-03D-SO	10/16/2015	8270 SIM	129-00-0	Pyrene	0.037	0.0079	mg/kg			NMED SSL	1740	
0608B537FEC-04D-SO	10/16/2015	8270 SIM	56-55-3	Benzo(a)anthracene	0.026	0.0052	mg/kg			NMED SSL	1.53	
0608B537FEC-04D-SO	10/16/2015	8270 SIM	50-32-8	Benzo(a)pyrene	0.021	0.0052	mg/kg			NMED SSL	1.12	
0608B537FEC-04D-SO	10/16/2015	8270 SIM	205-99-2	Benzo(b)fluoranthene	0.04	0.0052	mg/kg			NMED SSL	1.53	
0608B537FEC-04D-SO	10/16/2015	8270 SIM	207-08-9	Benzo(k)fluoranthene	0.011	0.0052	mg/kg	J	J	NMED SSL	15.3	
0608B537FEC-04D-SO	10/16/2015	8270 SIM	218-01-9	Chrysene	0.018	0.0052	mg/kg	J	J	NMED SSL	153	
0608B537FEC-04D-SO	10/16/2015	8270 SIM	206-44-0	Fluoranthene	0.017	0.0052	mg/kg	J	J	NMED SSL	2320	
0608B537FEC-04D-SO	10/16/2015	8270 SIM	193-39-5	Indeno(1,2,3-cd)pyrene	0.0095	0.0052	mg/kg	J	J	NMED SSL	1.53	
0608B537FEC-04D-SO	10/16/2015	8270 SIM	129-00-0	Pyrene	0.013	0.0052	mg/kg	J	J	NMED SSL	1740	

Notes:

CAS	Chemical Abstracts Service
DC	Direct Contact
DL	Detection Limit
DUP	Duplicate
EPA	Environmental Protection Agency
HH	Human Health
ID	Identification
LOD	Limit of Detection
LOQ	Limit of Quantiation
mg/kg	milligrams per kilogram
NMED	New Mexico Environment Department
NS	No Standard
RCRA	Resource Conservation and Recovery Act
RSL	Regional Screening Level
SSL	Soil Screening Level
SWMU	Soil Waste Management Unit

Lab Qualifier Codes:

Organics

J	Indicates that the analyte is positively identified and the result is less than the LOQ but greater than the DL.
U	Not detected at the LOD

Validation Qualifier Codes:

J	The analyte was positively identified; the associated numerical value is the approximate concentration
U	Not detected at or above the LOD.

Sample ID nomenclature:

Sample ID's consist of a combination of Parcel, AOC, additional site identifier, purpose of sample, increment number, sample depth, sample type, and matrix.

Example: 0608B537AEC-0.0-0.5D-SO
Parcel: 06
SWMU: 08

Additional Site Identifier: B537 (in this case it's Building 537)
Source of Sample: A (in this case it's Building 537 Area A)
Purpose of Sample: EC (excavation confirmation)
Sample Depth: Depth of samples will be designated with a 4-digit number, the first 2 digits starting depth, second 2 digits bottom depth (in this case 0.0 to 0.5 feet)
Sample Type: D (Discrete)
Sample Matrix: SO (soil) (in this case soil)
DUP = Field Duplicate (when applicable)

Screening level exceedances indicated by red result and a yellow highlighted "YES".

1. Excavated - Sample location was excavated during the Permittee-Initiated Interim Measure.

+ Screening Level Sources:

NMED SSL and EPA RSL	The HH DC Value selected is the lowest NMED Direct Contact Screening Level (for residents, industrial/occupational workers, and construction workers) via NMED Risk Assessment Guidance for Site Investigations and Remediation, November 2022 Revised. If there is no NMED Direct Contact Screening Level, the lowest EPA Residential RSL is selected for a target excess cancer risk level of 1 x 10-5 or target noncancer hazard quotient of 1.0 (November 2024). The most recent screening levels published by NMED and USEPA at the time the risk evaluation is conducted will be used in the risk evaluation.

Table B.3-10 SWMU 8 - Former Building 537 Excavation Confirmation Sampling Results (detections only), Method 8082 Polychlorinated Biphenyls

SAMPLE ID	DATE COLLECTED	METHOD	CAS #	ANALYTE	RESULT	LOD	UNITS	LAB QUALIFIER	VALIDATION QUALIFIER	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	HH DC VALUE	EXCEEDS HH DC LEVEL?
0608B537AEC-0.0-0.5D-SO	10/16/2015	8082	11096-82-5	PCB-1260	0.023	0.018	mg/kg	J	J	NMED SSL	2.43	
0608B537AEC-0.0-0.5D-SO-2017	11/8/2017	8082	11096-82-5	PCB-1260	0.027	0.018	mg/kg	J	J	NMED SSL	2.43	
0608B537AEC-01D-SO	10/16/2015	8082	11096-82-5	PCB-1260	0.066	0.018	mg/kg			NMED SSL	2.43	
0608B537AEC-02D-SO	10/16/2015	8082	11096-82-5	PCB-1260	0.13	0.018	mg/kg			NMED SSL	2.43	
0608B537AEC-04D-SO	10/16/2015	8082	11096-82-5	PCB-1260	0.056	0.019	mg/kg			NMED SSL	2.43	
0608B537AEC-05D-SO	11/8/2017	8082	11096-82-5	PCB-1260	0.2	0.018	mg/kg			NMED SSL	2.43	
0608B537AEC-06D-SO	11/8/2017	8082	11096-82-5	PCB-1260	0.058	0.018	mg/kg			NMED SSL	2.43	
0608B537AEC-07D-DUP (Excavated)	11/8/2017	8082	11096-82-5	PCB-1260	4.1	0.19	mg/kg		J	NMED SSL	2.43	YES
0608B537AEC-07D-SO (Excavated)	11/8/2017	8082	11096-82-5	PCB-1260	0.96	0.039	mg/kg		J	NMED SSL	2.43	
0608B537AEC-08D-SO	11/8/2017	8082	11096-82-5	PCB-1260	0.03	0.018	mg/kg	J	J	NMED SSL	2.43	
0608B537AEC-10D-SO	11/8/2017	8082	11096-82-5	PCB-1260	0.024	0.018	mg/kg	J	J	NMED SSL	2.43	
0608B537AEC-11D-SO	1/17/2018	8082	11096-82-5	PCB-1260	0.12	0.091	mg/kg	J		NMED SSL	2.43	
0608B537BEC-0.0-0.5D-SO (Excavated)	10/16/2015	8082	11096-82-5	PCB-1260	0.65	0.018	mg/kg			NMED SSL	2.43	
0608B537BEC-01D-DUP	10/16/2015	8082	11096-82-5	PCB-1260	0.19	0.018	mg/kg			NMED SSL	2.43	
0608B537BEC-01D-SO	10/16/2015	8082	11096-82-5	PCB-1260	0.22	0.017	mg/kg			NMED SSL	2.43	
0608B537BEC-02D-SO	10/16/2015	8082	11096-82-5	PCB-1260	0.21	0.017	mg/kg			NMED SSL	2.43	
0608B537BEC-03D-SO	10/16/2015	8082	11096-82-5	PCB-1260	0.13	0.018	mg/kg			NMED SSL	2.43	
0608B537BEC-04D-SO	10/16/2015	8082	11096-82-5	PCB-1260	0.11	0.017	mg/kg			NMED SSL	2.43	
0608B537BEC-05D-SO	10/4/2017	8082	11096-82-5	PCB-1260	0.11	0.019	mg/kg			NMED SSL	2.43	
0608B537BEC-05D-SO-DUP	10/4/2017	8082	11096-82-5	PCB-1260	0.11	0.019	mg/kg			NMED SSL	2.43	
0608B537BEC-07D-SO	10/4/2017	8082	11096-82-5	PCB-1260	0.14	0.018	mg/kg			NMED SSL	2.43	
0608B537BEC-08D-SO	10/4/2017	8082	11096-82-5	PCB-1260	0.34	0.018	mg/kg			NMED SSL	2.43	
0608B537BEC-09D-SO	10/4/2017	8082	11096-82-5	PCB-1260	0.19	0.018	mg/kg			NMED SSL	2.43	
0608B537CEC01-0.0-0.5D-DUP	10/16/2015	8082	11096-82-5	PCB-1260	0.029	0.020	mg/kg	J	J	NMED SSL	2.43	
0608B537CEC01-0.0-0.5D-SO	10/16/2015	8082	11096-82-5	PCB-1260	0.028	0.020	mg/kg	J	J	NMED SSL	2.43	
0608B537CEC-01D-SO (Excavated)	10/16/2015	8082	11096-82-5	PCB-1260	7.7	0.35	mg/kg			NMED SSL	2.43	YES
0608B537CEC02-0.0-0.5D-SO	10/16/2015	8082	11096-82-5	PCB-1260	0.046	0.018	mg/kg	J	J	NMED SSL	2.43	
0608B537CEC-02D-SO	10/16/2015	8082	11096-82-5	PCB-1260	0.3	0.018	mg/kg			NMED SSL	2.43	
0608B537CEC03-0.0-0.5D-SO	12/1/2015	8082	11096-82-5	PCB-1260	0.085	0.019	mg/kg			NMED SSL	2.43	
0608B537CEC-03D-SO	10/16/2015	8082	11096-82-5	PCB-1260	0.46	0.018	mg/kg			NMED SSL	2.43	
0608B537CEC04-0.0-0.5D-DUP	1/17/2018	8082	11096-82-5	PCB-1260	0.17	0.019	mg/kg			NMED SSL	2.43	
0608B537CEC04-0.0-0.5D-SO	1/17/2018	8082	11096-82-5	PCB-1260	0.17	0.019	mg/kg			NMED SSL	2.43	
0608B537CEC05-0.0-0.5D-SO	1/17/2018	8082	11096-82-5	PCB-1260	2.1	0.1	mg/kg			NMED SSL	2.43	
0608B537CEC-05D-SO	10/16/2015	8082	11096-82-5	PCB-1260	0.27	0.018	mg/kg			NMED SSL	2.43	
0608B537CEC-06D-SO	10/16/2015	8082	11096-82-5	PCB-1260	0.096	0.017	mg/kg			NMED SSL	2.43	
0608B537CEC-07D-SO	12/1/2015	8082	11096-82-5	PCB-1260	0.13	0.018	mg/kg			NMED SSL	2.43	
0608B537CEC-08D-SO	12/1/2015	8082	11096-82-5	PCB-1260	0.12	0.019	mg/kg			NMED SSL	2.43	
0608B537CEC-08D-SO-DUP	12/1/2015	8082	11096-82-5	PCB-1260	0.089	0.019	mg/kg			NMED SSL	2.43	
0608B537CEC-09D-SO	10/4/2017	8082	11096-82-5	PCB-1260	0.2	0.019	mg/kg			NMED SSL	2.43	
0608B537CEC-10D-SO	10/4/2017	8082	11096-82-5	PCB-1260	0.39	0.018	mg/kg			NMED SSL	2.43	
0608B537CEC-11D-SO	10/4/2017	8082	11096-82-5	PCB-1260	0.02	0.018	mg/kg	J	J	NMED SSL	2.43	

Table B.3-10 SWMU 8 - Former Building 537 Excavation Confirmation Sampling Results (detections only), Method 8082 Polychlorinated Biphenyls

SAMPLE ID	DATE COLLECTED	METHOD	CAS #	ANALYTE	RESULT	LOD	UNITS	LAB QUALIFIER	VALIDATION QUALIFIER	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	HH DC VALUE	EXCEEDS HH DC LEVEL?
0608B537CEC-14D-SO	10/4/2017	8082	11096-82-5	PCB-1260	0.26	0.019	mg/kg			NMED SSL	2.43	
0608B537CEC-16D-SO (Excavated)	10/5/2017	8082	11096-82-5	PCB-1260	42	1.9	mg/kg			NMED SSL	2.43	YES
0608B537CEC-17D-SO	1/17/2018	8082	11096-82-5	PCB-1260	0.095	0.018	mg/kg			NMED SSL	2.43	
0608B537CEC-18D-SO	1/17/2018	8082	11096-82-5	PCB-1260	0.04	0.02	mg/kg	J		NMED SSL	2.43	
0608B537DEC-01D-DUP	10/16/2015	8082	11096-82-5	PCB-1260	0.074	0.018	mg/kg			NMED SSL	2.43	
0608B537DEC-01D-SO	10/16/2015	8082	11096-82-5	PCB-1260	0.087	0.018	mg/kg			NMED SSL	2.43	
0608B537DEC-02D-SO	10/16/2015	8082	11096-82-5	PCB-1260	0.29	0.018	mg/kg			NMED SSL	2.43	
0608B537DEC03-0.0-0.5D-SO	10/20/2015	8082	11096-82-5	PCB-1260	0.5	0.020	mg/kg			NMED SSL	2.43	
0608B537DEC-03D-SO	10/16/2015	8082	11096-82-5	PCB-1260	0.023	0.019	mg/kg	J	J	NMED SSL	2.43	
0608B537DEC04-0.0-0.5D-SO	10/20/2015	8082	11096-82-5	PCB-1260	0.014	0.018	mg/kg	J	J	NMED SSL	2.43	
0608B537DEC-04D-SO	10/16/2015	8082	11096-82-5	PCB-1260	1	0.077	mg/kg			NMED SSL	2.43	
0608B537DEC05-0.0-0.5D-SO (Excavated)	10/20/2015	8082	11096-82-5	PCB-1260	3.7	0.18	mg/kg			NMED SSL	2.43	YES
0608B537DEC05-1.0-1.5D-SO	5/10/2016	8082	11096-82-5	PCB-1260	0.022	0.018	mg/kg	J	J	NMED SSL	2.43	
0608B537DEC-05D-SO	10/16/2015	8082	11096-82-5	PCB-1260	0.4	0.019	mg/kg			NMED SSL	2.43	
0608B537DEC-06D-SO	10/16/2015	8082	11096-82-5	PCB-1260	0.097	0.019	mg/kg			NMED SSL	2.43	
0608B537DEC-08D-SO	10/16/2015	8082	11096-82-5	PCB-1260	0.093	0.018	mg/kg			NMED SSL	2.43	
0608B537DEC-09D-SO	10/16/2015	8082	11096-82-5	PCB-1260	0.07	0.018	mg/kg			NMED SSL	2.43	
0608B537DEC-10D-SO	10/16/2015	8082	11096-82-5	PCB-1260	0.064	0.018	mg/kg			NMED SSL	2.43	
0608B537DEC-11D-DUP	10/16/2015	8082	11096-82-5	PCB-1260	0.36	0.018	mg/kg			NMED SSL	2.43	
0608B537DEC-11D-SO	10/16/2015	8082	11096-82-5	PCB-1260	0.33	0.018	mg/kg			NMED SSL	2.43	
0608B537DEC-12D-SO	10/4/2017	8082	11096-82-5	PCB-1260	0.68	0.02	mg/kg			NMED SSL	2.43	
0608B537DEC-12D-SO-DUP	10/4/2017	8082	11096-82-5	PCB-1260	0.58	0.019	mg/kg			NMED SSL	2.43	
0608B537DEC-13D-SO	10/4/2017	8082	11096-82-5	PCB-1260	0.41	0.018	mg/kg		J	NMED SSL	2.43	
0608B537DEC-14D-SO	10/4/2017	8082	11096-82-5	PCB-1260	0.017	0.018	mg/kg	J	J	NMED SSL	2.43	
0608B537DEC-15D-SO	10/4/2017	8082	11096-82-5	PCB-1260	0.02	0.019	mg/kg	J	J	NMED SSL	2.43	
0608B537DEC-16D-SO	10/4/2017	8082	11096-82-5	PCB-1260	0.73	0.019	mg/kg			NMED SSL	2.43	
0608B537DEC-17D-SO	10/4/2017	8082	11096-82-5	PCB-1260	0.06	0.019	mg/kg			NMED SSL	2.43	
0608B537DEC-18D-SO	10/4/2017	8082	11096-82-5	PCB-1260	0.17	0.019	mg/kg			NMED SSL	2.43	
0608B537DEC-21D-SO	10/4/2017	8082	11096-82-5	PCB-1260	0.017	0.018	mg/kg	J	J	NMED SSL	2.43	
0608B537EEC01-0.0-0.5D-SO	10/20/2015	8082	11096-82-5	PCB-1260	0.019	0.019	mg/kg	J	J	NMED SSL	2.43	
0608B537EEC-01D-SO	10/20/2015	8082	11096-82-5	PCB-1260	0.067	0.018	mg/kg			NMED SSL	2.43	
0608B537EEC-02D-SO	10/20/2015	8082	11096-82-5	PCB-1260	0.043	0.019	mg/kg	J	J	NMED SSL	2.43	
0608B537EEC-03D-SO	10/20/2015	8082	11096-82-5	PCB-1260	0.034	0.020	mg/kg	J	J	NMED SSL	2.43	
0608B537EEC-04D-SO	10/20/2015	8082	11096-82-5	PCB-1260	0.13	0.019	mg/kg			NMED SSL	2.43	
0608B537EEC-05D-SO	10/5/2017	8082	11096-82-5	PCB-1260	0.056	0.018	mg/kg			NMED SSL	2.43	
0608B537EEC-06D-SO	10/5/2017	8082	11096-82-5	PCB-1260	0.34	0.018	mg/kg			NMED SSL	2.43	
0608B537EEC-08D-SO	10/5/2017	8082	11096-82-5	PCB-1260	0.013	0.02	mg/kg	J	J	NMED SSL	2.43	
0608B537EEC-09D-SO	10/5/2017	8082	11096-82-5	PCB-1260	0.099	0.02	mg/kg			NMED SSL	2.43	
0608B537EEC-10D-SO	10/5/2017	8082	11096-82-5	PCB-1260	0.97	0.036	mg/kg			NMED SSL	2.43	
0608B537EEC-11D-SO	10/5/2017	8082	11096-82-5	PCB-1260	0.064	0.018	mg/kg		J	NMED SSL	2.43	

Table B.3-10 SWMU 8 - Former Building 537 Excavation Confirmation Sampling Results (detections only), Method 8082 Polychlorinated Biphenyls

SAMPLE ID	DATE COLLECTED	METHOD	CAS #	ANALYTE	RESULT	LOD	UNITS	LAB QUALIFIER	VALIDATION QUALIFIER	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	HH DC VALUE	EXCEEDS HH DC LEVEL?
0608B537FEC-0.0-0.5D-SO	10/16/2015	8082	11096-82-5	PCB-1260	0.5	0.018	mg/kg			NMED SSL	2.43	
0608B537FEC-01D-SO	10/16/2015	8082	11096-82-5	PCB-1260	0.26	0.018	mg/kg			NMED SSL	2.43	
0608B537FEC-02D-DUP	10/16/2015	8082	11096-82-5	PCB-1260	0.3	0.018	mg/kg			NMED SSL	2.43	
0608B537FEC-02D-SO	10/16/2015	8082	11096-82-5	PCB-1260	0.48	0.018	mg/kg			NMED SSL	2.43	
0608B537FEC-03D-SO	10/16/2015	8082	11096-82-5	PCB-1260	0.91	0.089	mg/kg			NMED SSL	2.43	
0608B537FEC-04D-SO	10/16/2015	8082	11096-82-5	PCB-1260	0.26	0.018	mg/kg			NMED SSL	2.43	

Notes:

CAS	Chemical Abstracts Service
DC	Direct Contact
DL	Detection Limit
DUP	Duplicate
EPA	Environmental Protection Agency
HH	Human Health
ID	Identification
LOD	Limit of Detection
LOQ	Limit of Quantiation
mg/kg	milligrams per kilogram
NMED	New Mexico Environment Department
NS	No Standard
RCRA	Resource Conservation and Recovery Act
RSL	Regional Screening Level
SSL	Soil Screening Level
SWMU	Soil Waste Management Unit

Lab Qualifier Codes:

Organics

J	Indicates that the analyte is positively identified and the result is less than the LOQ but greater than the DL.
U	Not detected at the LOD

Validation Qualifier Codes:

J	The analyte was positively identified; the associated numerical value is the approximate concentration
U	Not detected at or above the LOD.

Sample ID nomenclature:

Sample ID's consist of a combination of Parcel, AOC, additional site identifier, purpose of sample, increment number, sample depth, sample type, and matrix.

Example: 0608B537AEC-0.0-0.5D-SO
Parcel: 06
SWMU: 08

Additional Site Identifier: B537 (in this case it's Building 537)
Source of Sample: A (in this case it's Building 537 Area A)
Purpose of Sample: EC (excavation confirmation)
Sample Depth: Depth of samples will be designated with a 4-digit number, the first 2 digits starting depth, second 2 digits bottom depth (in this case 0.0 to 0.5 feet)
Sample Type: D (Discrete)
Sample Matrix: SO (soil) (in this case soil)
DUP = Field Duplicate (when applicable)

Screening level exceedances indicated by red result and a yellow highlighted "YES".

1. Excavated - Sample location was excavated during the Permittee-Initiated Interim Measure.

+ Screening Level Sources:

NMED SSL and EPA RSL	The HH DC Value selected is the lowest NMED Direct Contact Screening Level (for residents, industrial/occupational workers, and construction workers) via NMED Risk Assessment Guidance for Site Investigations and Remediation, November 2022 Revised. If there is no NMED Direct Contact Screening Level, the lowest EPA Residential RSL is selected for a target excess cancer risk level of 1 x 10-5 or target noncancer hazard quotient of 1.0 (November 2024). The most recent screening levels published by NMED and USEPA at the time the risk evaluation is conducted will be used in the risk evaluation.

Table B.4-1 SWMU 11: Sample Locations with Associated Sample Identifiers
Fort Wingate Depot Activity, Gallup, NM

Sample ID	Northing (UTM)	Easting (UTM)	Date	Time
0611B542-SB01	3932142.35	718259.84	6/10/2011	10:20
0611B542-SB02	3932127.52	718249.31	6/10/2011	12:10
0611B542-SB03	3932113.97	718247.34	6/13/2011	8:30
0611B542-SB04	3932108.02	718235.27	6/13/2011	10:00
0611B542-SB05	3932161.30	718246.18	6/14/2011	8:30
0611B542-SB06	3932148.24	718236.95	6/9/2011	9:10
0611B542-SB07	3932131.01	718224.90	6/9/2011	11:10
0611B542-SB08	3932120.76	718217.27	6/9/2011	13:10
0611B542-SB09	3932114.92	718185.91	6/13/2011	12:00
0611B542-SB10	3932092.78	718168.48	6/14/2011	14:10
0611B542-SB11	3932077.17	718132.78	6/14/2011	10:30
0611B542-SB12	3932069.68	718061.62	6/13/2011	12:40
0611B542-SB13	3932106.26	718109.37	6/15/2011	10:40

[0]Northing and Easting values determined through surveyence with topcom bay station model

Local ID (identifier) qualifiers:

SO- Soil Sample

SS-Surface Sample

BM- Multi Incremental 1 ft. bgs

AM- Multi Incremental <1 ft. bgs

SB- Soil Boring

Table B.4-2 Parcel 6 SWMU 11: Method 8260B Volatile Organic Compounds Soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0611B542-SB01-1011D-SO	280-16863-9	6/10/2011	10-11	Carbon disulfide	75-15-0	0.00085	J	0.0031	0.00026	mg/kg	1550	NMED SSL	
0611B542-SB01-1516D-SO	280-16863-10	6/10/2011	15-16	Carbon disulfide	75-15-0	0.00098	J	0.0039	0.00033	mg/kg	1550	NMED SSL	
0611B542-SB01-2021D-SO	280-16863-11	6/10/2011	20-21	Carbon disulfide	75-15-0	0.00062	J	0.0036	0.0003	mg/kg	1550	NMED SSL	
0611B542-SB01-6465D-SO	280-16863-12	6/10/2011	25-26	Carbon disulfide	75-15-0	0.00067	J	0.0038	0.00032	mg/kg	1550	NMED SSL	
0611B542-SB02-0506D-SO	280-16863-3	6/10/2011	5-6	Carbon disulfide	75-15-0	0.0033	J	0.004	0.00034	mg/kg	1550	NMED SSL	
0611B542-SB02-1011D-SO	280-16863-4	6/10/2011	10-11	Carbon disulfide	75-15-0	0.0011	J	0.0037	0.00031	mg/kg	1550	NMED SSL	
0611B542-SB02-6465D-SO	280-16863-6	6/10/2011	18-19	Carbon disulfide	75-15-0	0.0019	J	0.0033	0.00028	mg/kg	1550	NMED SSL	
0611B542-SB03-1011D-SO	280-16908-2	6/13/2011	10-11	Carbon disulfide	75-15-0	0.0015	J	0.0035	0.00029	mg/kg	1550	NMED SSL	
0611B542-SB03-1516D-SO	280-16908-3	6/13/2011	15-16	Carbon disulfide	75-15-0	0.0028	J	0.0033	0.00027	mg/kg	1550	NMED SSL	
0611B542-SB03-2021D-SO	280-16908-4	6/13/2011	20-21	Carbon disulfide	75-15-0	0.0038	J	0.0045	0.00038	mg/kg	1550	NMED SSL	
0611B542-SB03-6465D-SO	280-16908-5	6/13/2011	22-23	Carbon disulfide	75-15-0	0.0021	J	0.0043	0.00036	mg/kg	1550	NMED SSL	
0611B542-SB04-0506D-SO	280-16908-9	6/13/2011	5-6	Carbon disulfide	75-15-0	0.0014	J	0.0033	0.00028	mg/kg	1550	NMED SSL	
0611B542-SB04-1011D-SO	280-16908-11	6/13/2011	10-11	Carbon disulfide	75-15-0	0.002	J	0.0047	0.00039	mg/kg	1550	NMED SSL	
0611B542-SB04-1516D-SO	280-16908-12	6/13/2011	15-16	Carbon disulfide	75-15-0	0.00069	J	0.0035	0.0003	mg/kg	1550	NMED SSL	
0611B542-SB05-0001D-S0	280-16958-6	6/14/2011	0-1	Acetone	67-64-1	0.0042	J	0.016	0.0042	mg/kg	66300	NMED SSL	
0611B542-SB05-0001D-S0	280-16958-6	6/14/2011	0-1	Carbon disulfide	75-15-0	0.0012	J	0.0039	0.00033	mg/kg	1550	NMED SSL	
0611B542-SB05-0001D-S0	280-16958-6	6/14/2011	0-1	n-Butylbenzene	104-51-8	0.00048	J	0.0039	0.00044	mg/kg	3900	EPA RSL	
0611B542-SB05-0405D-SO	280-16958-8	6/14/2011	4-5	Carbon disulfide	75-15-0	0.0029	J	0.0035	0.00029	mg/kg	1550	NMED SSL	
0611B542-SB05-1920D-SO	280-16958-10	6/14/2011	19-20	Carbon disulfide	75-15-0	0.00096	J	0.004	0.00034	mg/kg	1550	NMED SSL	
0611B542-SB05-6465D-SO	280-16958-11	6/14/2011	21-22	Carbon disulfide	75-15-0	0.0075	J	0.0043	0.00036	mg/kg	1550	NMED SSL	
0611B542-SB06-0001D-S0	280-16802-7	6/9/2011	0-1	Carbon disulfide	75-15-0	0.0027	J	0.0033	0.00028	mg/kg	1550	NMED SSL	
0611B542-SB06-0405D-SO	280-16802-8	6/9/2011	4-5	Carbon disulfide	75-15-0	0.0052		0.004	0.00033	mg/kg	1550	NMED SSL	
0611B542-SB06-0910D-SO	280-16802-9	6/9/2011	9-10	Carbon disulfide	75-15-0	0.00049	J	0.0029	0.00025	mg/kg	1550	NMED SSL	
0611B542-SB06-1920D-SO	280-16802-10	6/9/2011	19-20	Carbon disulfide	75-15-0	0.0011	J	0.0036	0.0003	mg/kg	1550	NMED SSL	
0611B542-SB06-6465D-SO	280-16802-11	6/9/2011	22-23	Acetone	67-64-1	0.0056	J	0.016	0.0042	mg/kg	66300	NMED SSL	
0611B542-SB06-6465D-SO	280-16802-11	6/9/2011	22-23	Carbon disulfide	75-15-0	0.00088	J	0.0039	0.00033	mg/kg	1550	NMED SSL	
0611B542-SB06-6465D-SO	280-16802-11	6/9/2011	22-23	Trichloroethene	79-01-6	0.00035	J	0.0039	0.00018	mg/kg	6.77	NMED SSL	
0611B542-SB07-0001D-S0	280-16802-13	6/9/2011	0-1	Acetone	67-64-1	0.0037	J	0.013	0.0034	mg/kg	66300	NMED SSL	
0611B542-SB07-0001D-S0	280-16802-13	6/9/2011	0-1	Carbon disulfide	75-15-0	0.00075	J	0.0031	0.00026	mg/kg	1550	NMED SSL	
0611B542-SB07-0001D-S0	280-16802-5	6/9/2011	0-1	Carbon disulfide	75-15-0	0.00051	J	0.0033	0.00027	mg/kg	1550	NMED SSL	
0611B542-SB07-0910D-SO	280-16802-15	6/9/2011	9-10	Acetone	67-64-1	0.0041	J	0.015	0.004	mg/kg	66300	NMED SSL	
0611B542-SB07-0910D-SO	280-16802-15	6/9/2011	9-10	Carbon disulfide	75-15-0	0.0031	J	0.0037	0.00031	mg/kg	1550	NMED SSL	
0611B542-SB07-1920D-SO	280-16802-16	6/9/2011	19-20	Acetone	67-64-1	0.0035	J	0.012	0.0033	mg/kg	66300	NMED SSL	
0611B542-SB07-1920D-SO	280-16802-16	6/9/2011	19-20	Carbon disulfide	75-15-0	0.00026	J	0.003	0.00025	mg/kg	1550	NMED SSL	

Table B.4-2 Parcel 6 SWMU 11: Method 8260B Volatile Organic Compounds Soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0611B542-SB08-0001D-S0	280-16802-1	6/9/2011	0-1	Carbon disulfide	75-15-0	0.0016	J	0.0029	0.00025	mg/kg	1550	NMED SSL	
0611B542-SB08-0405D-SO	280-16802-2	6/9/2011	4-5	Carbon disulfide	75-15-0	0.00046	J	0.0024	0.00021	mg/kg	1550	NMED SSL	
0611B542-SB08-0910D-SO	280-16802-3	6/9/2011	9-10	Carbon disulfide	75-15-0	0.0013	J	0.0032	0.00027	mg/kg	1550	NMED SSL	
0611B542-SB08-1920D-SO	280-16802-4	6/9/2011	19-20	Carbon disulfide	75-15-0	0.00087	J	0.0034	0.00029	mg/kg	1550	NMED SSL	
0611B542-SB09-001D-SO	280-16908-6	6/13/2011	0-1	Carbon disulfide	75-15-0	0.00083	J	0.0035	0.00029	mg/kg	1550	NMED SSL	
0611B542-SB09-0405D-SO	280-16908-7	6/13/2011	4-5	Carbon disulfide	75-15-0	0.0026	J	0.0041	0.00034	mg/kg	1550	NMED SSL	
0611B542-SB10-0405D-SO	280-16958-13	6/14/2011	4-5	Carbon disulfide	75-15-0	0.0015	J	0.0038	0.00032	mg/kg	1550	NMED SSL	
0611B542-SB10-0910D-SO	280-16958-14	6/14/2011	9-10	Carbon disulfide	75-15-0	0.0027	J	0.0037	0.00031	mg/kg	1550	NMED SSL	
0611B542-SB10-6465D-SO	280-17036-2	6/15/2011	41-42	Carbon disulfide	75-15-0	0.0016	J	0.0031	0.00026	mg/kg	1550	NMED SSL	
0611B542-SB11-0405D-SO	280-16958-1	6/14/2011	4-5	1,2,4-Trichlorobenzene	120-82-1	0.00098	J	0.0031	0.00045	mg/kg	79.1	NMED SSL	
0611B542-SB11-0405D-SO	280-16958-1	6/14/2011	4-5	1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.00055	J	0.0061	0.00037	mg/kg	0.0858	NMED SSL	
0611B542-SB11-0405D-SO	280-16958-1	6/14/2011	4-5	1,2-Dichlorobenzene	95-50-1	0.00038	J	0.0031	0.00028	mg/kg	2150	NMED SSL	
0611B542-SB11-0405D-SO	280-16958-1	6/14/2011	4-5	Carbon disulfide	75-15-0	0.001	J	0.0031	0.00026	mg/kg	1550	NMED SSL	
0611B542-SB11-0910D-SO	280-16958-3	6/14/2011	9-10	Carbon disulfide	75-15-0	0.0014	J	0.0035	0.00029	mg/kg	1550	NMED SSL	
0611B542-SB11-1920D-SO	280-16958-4	6/14/2011	19-20	Carbon disulfide	75-15-0	0.0013	J	0.0032	0.00027	mg/kg	1550	NMED SSL	
0611B542-SB11-6465D-SO	280-16958-5	6/14/2011	38-39	Carbon disulfide	75-15-0	0.00068	J	0.0033	0.00028	mg/kg	1550	NMED SSL	
0611B542-SB12-0405D-SO	280-16908-15	6/13/2011	4-5	Carbon disulfide	75-15-0	0.0032		0.0032	0.00027	mg/kg	1550	NMED SSL	
0611B542-SB12-0910D-SO	280-16908-16	6/13/2011	9-10	Carbon disulfide	75-15-0	0.0029	J	0.0044	0.00037	mg/kg	1550	NMED SSL	
0611B542-SB13-0405D-SO	280-17036-3	6/15/2011	4-5	Carbon disulfide	75-15-0	0.0017	J	0.0029	0.00024	mg/kg	1550	NMED SSL	
0611B542-SB13-1920D-SO	280-17036-6	6/15/2011	19-20	1,2,3-Trichlorobenzene	87-61-6	0.00062	J	0.0033	0.00049	mg/kg	63	EPA RSL	
0611B542-SB13-1920D-SO	280-17036-6	6/15/2011	19-20	Hexachlorobutadiene	87-68-3	0.00043	J	0.0033	0.00036	mg/kg	52.1	NMED SSL	

Notes:

CAS	Chemical Abstracts Service
DC	Direct Contact
DL	Detection Limit
DUP	Duplicate
EPA	Environmental Protection Agency
HH	Human Health
ID	Identification
LOD	Limit of Detection
LOQ	Limit of Quantiation
mg/kg	milligrams per kilogram
NMED	New Mexico Environment Department
NS	No Standard
RCRA	Resource Conservation and Recovery Act
RSL	Regional Screening Level
SSL	Soil Screening Level
SWMU	Soil Waste Management Unit

Lab Qualifier Codes:

Organics

J	Indicates that the analyte is positively identified and the result is less than the LOQ but greater than the DL.
U	Not detected at the LOD

Validation Qualifier Codes:

J	The analyte was positively identified; the associated numerical value is the approximate concentration
U	Not detected at or above the LOD.

Sample ID nomenclature:

Sample ID's consist of a combination of Parcel, AOC, additional site identifier, purpose of sample, increment number, sample depth, sample type, and matrix.

Example: 0608B537AEC-0.0-0.5D-SO
Parcel: 06
SWMU: 08

Additional Site Identifier: B537 (in this case it's Building 537)
Source of Sample: A (in this case it's Building 537 Area A)
Purpose of Sample: EC (excavation confirmation)
Sample Depth: Depth of samples will be designated with a 4-digit number, the first 2 digits starting depth, second 2 digits bottom depth (in this case 0.0 to 0.5 feet)
Sample Type: D (Discrete)
Sample Matrix: SO (soil) (in this case soil)
DUP = Field Duplicate (when applicable)

Screening level exceedances indicated by red result and a yellow highlighted "YES".

1. Excavated - Sample location was excavated during the Permittee-Initiated Interim Measure.

+ Screening Level Sources:

NMED SSL and EPA RSL	The HH DC Value selected is the lowest NMED Direct Contact Screening Level (for residents, industrial/occupational workers, and construction workers) via NMED Risk Assessment Guidance for Site Investigations and Remediation, November 2022 Revised. If there is no NMED Direct Contact Screening Level, the lowest EPA Residential RSL is selected for a target excess cancer risk level of 1 x 10-5 or target noncancer hazard quotient of 1.0 (November 2024). The most recent screening levels published by NMED and USEPA at the time the risk evaluation is conducted will be used in the risk evaluation.

Table B.4-3 Parcel 6 SWMU 11: Method 8270C Semi-Volatile Organic Compounds Soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0611B542-SB05-1920D-SO	280-16958-10	6/14/2011	19-20	Phenol	108-95-2	0.022	J	0.38	0.021	mg/kg	18500	NMED SSL	
0611B542-SB08-0405D-SO	280-16802-2	6/9/2011	4-5	Benzyl alcohol	100-51-6	0.03	J	0.33	0.01	mg/kg	6300	EPA RSL	
0611B542-SB08-0405D-SO	280-16802-2	6/9/2011	4-5	Pyrene	129-00-0	0.012	J	0.4	0.012	mg/kg	1740	NMED SSL	
0611B542-SB09-001D-SO	280-16908-6	6/13/2011	0-1	Phenanthrene	85-01-8	0.024	J	0.35	0.018	mg/kg	1850	NMED SSL	
0611B542-SB09-001D-SO	280-16908-6	6/13/2011	0-1	Pyrene	129-00-0	0.028	J	0.42	0.013	mg/kg	1740	NMED SSL	
0611B542-SB09-0405D-SO	280-16908-7	6/13/2011	4-5	Pyrene	129-00-0	0.013	J	0.43	0.013	mg/kg	1740	NMED SSL	

Notes:

CAS	Chemical Abstracts Service
DC	Direct Contact
DL	Detection Limit
DUP	Duplicate
EPA	Environmental Protection Agency
HH	Human Health
ID	Identification
LOD	Limit of Detection
LOQ	Limit of Quantiation
mg/kg	milligrams per kilogram
NMED	New Mexico Environment Department
NS	No Standard
RCRA	Resource Conservation and Recovery Act
RSL	Regional Screening Level
SSL	Soil Screening Level
SWMU	Soil Waste Management Unit

Lab Qualifier Codes:

Organics

J	Indicates that the analyte is positively identified and the result is less than the LOQ but greater than the DL.
U	Not detected at the LOD

Validation Qualifier Codes:

J	The analyte was positively identified; the associated numerical value is the approximate concentration
U	Not detected at or above the LOD.

Sample ID nomenclature:

Sample ID's consist of a combination of Parcel, AOC, additional site identifier, purpose of sample, increment number, sample depth, sample type, and matrix.

Example: 0608B537AEC-0.0-0.5D-SO
Parcel: 06
SWMU: 08

Additional Site Identifier: B537 (in this case it's Building 537)
Source of Sample: A (in this case it's Building 537 Area A)
Purpose of Sample: EC (excavation confirmation)
Sample Depth: Depth of samples will be designated with a 4-digit number, the first 2 digits starting depth, second 2 digits bottom depth (in this case 0.0 to 0.5 feet)
Sample Type: D (Discrete)
Sample Matrix: SO (soil) (in this case soil)
DUP = Field Duplicate (when applicable)

Screening level exceedances indicated by red result and a yellow highlighted "YES".

1. Excavated - Sample location was excavated during the Permittee-Initiated Interim Measure.

+ Screening Level Sources:

NMED SSL and EPA RSL	The HH DC Value selected is the lowest NMED Direct Contact Screening Level (for residents, industrial/occupational workers, and construction workers) via NMED Risk Assessment Guidance for Site Investigations and Remediation, November 2022 Revised. If there is no NMED Direct Contact Screening Level, the lowest EPA Residential RSL is selected for a target excess cancer risk level of 1 x 10-5 or target noncancer hazard quotient of 1.0 (November 2024). The most recent screening levels published by NMED and USEPA at the time the risk evaluation is conducted will be used in the risk evaluation.

Table B.4-4 Parcel 6 SWMU 11: Method 8015M Diesel Range Organic Compounds Soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0611B542-SB01-0506D-SO	280-16863-7	6/10/2011	5-6	Diesel Range Organics [C10-C28]	STL00143	3.5	J	4.8	0.81	mg/Kg	1000	NMED SSL	
0611B542-SB02-0506D-SO	280-16863-3	6/10/2011	5-6	Diesel Range Organics [C10-C28]	STL00143	6		4.4	0.75	mg/Kg	1000	NMED SSL	
0611B542-SB03-0506D-SO	280-16908-1	6/13/2011	5-6	Diesel Range Organics [C10-C28]	STL00143	4.2		4.2	0.72	mg/Kg	1000	NMED SSL	
0611B542-SB04-0506D-SO	280-16908-9	6/13/2011	5-6	Diesel Range Organics [C10-C28]	STL00143	1.6	J	4	0.69	mg/Kg	1000	NMED SSL	

Notes:

CAS	Chemical Abstracts Service
DC	Direct Contact
DL	Detection Limit
DUP	Duplicate
EPA	Environmental Protection Agency
HH	Human Health
ID	Identification
LOD	Limit of Detection
LOQ	Limit of Quantiation
mg/kg	milligrams per kilogram
NMED	New Mexico Environment Department
NS	No Standard
RCRA	Resource Conservation and Recovery Act
RSL	Regional Screening Level
SSL	Soil Screening Level
SWMU	Soil Waste Management Unit

Lab Qualifier Codes:

Organics

J	Indicates that the analyte is positively identified and the result is less than the LOQ but greater than the DL.
U	Not detected at the LOD

Validation Qualifier Codes:

J	The analyte was positively identified; the associated numerical value is the approximate concentration
U	Not detected at or above the LOD.

Sample ID nomenclature:

Sample ID's consist of a combination of Parcel, AOC, additional site identifier, purpose of sample, increment number, sample depth, sample type, and matrix.

Example: 0608B537AEC-0.0-0.5D-SO
Parcel: 06
SWMU: 08

Additional Site Identifier: B537 (in this case it's Building 537)
Source of Sample: A (in this case it's Building 537 Area A)
Purpose of Sample: EC (excavation confirmation)
Sample Depth: Depth of samples will be designated with a 4-digit number, the first 2 digits starting depth, second 2 digits bottom depth (in this case 0.0 to 0.5 feet)
Sample Type: D (Discrete)
Sample Matrix: SO (soil) (in this case soil)
DUP = Field Duplicate (when applicable)

Screening level exceedances indicated by red result and a yellow highlighted "YES".

1. Excavated - Sample location was excavated during the Permittee-Initiated Interim Measure.

+ Screening Level Sources:

NMED SSL and EPA RSL	The HH DC Value selected is the lowest NMED Direct Contact Screening Level (for residents, industrial/occupational workers, and construction workers) via NMED Risk Assessment Guidance for Site Investigations and Remediation, November 2022 Revised. If there is no NMED Direct Contact Screening Level, the lowest EPA Residential RSL is selected for a target excess cancer risk level of 1 x 10-5 or target noncancer hazard quotient of 1.0 (November 2024). The most recent screening levels published by NMED and USEPA at the time the risk evaluation is conducted will be used in the risk evaluation.

Table B.4-5 Parcel 6 SWMU 11: Method 8330B Explosives Soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0611B542-SB02-0506D-SO	280-16863-3	6/10/2011	5-6	HMX	2691-41-0	0.47		0.098	0.022	mg/Kg	3850	NMED SSL	
0611B542-SB02-1011D-SO	280-16863-4	6/10/2011	10-11	HMX	2691-41-0	0.56		0.099	0.022	mg/Kg	3850	NMED SSL	
0611B542-SB02-1011D-SO	280-16863-4	6/10/2011	10-11	RDX	121-82-4	0.12	J	0.2	0.043	mg/Kg	83.1	NMED SSL	
0611B542-SB06-0001D-S0	280-16802-7	6/9/2011	0-1	HMX	2691-41-0	1.7		0.1	0.023	mg/Kg	3850	NMED SSL	
0611B542-SB06-0405D-SO	280-16802-8	6/9/2011	4-5	HMX	2691-41-0	0.56		0.094	0.021	mg/Kg	3850	NMED SSL	
0611B542-SB06-0405D-SO	280-16802-8	6/9/2011	4-5	RDX	121-82-4	0.6		0.19	0.04	mg/Kg	83.1	NMED SSL	
0611B542-SB06-0910D-SO	280-16802-9	6/9/2011	9-10	HMX	2691-41-0	0.04	J	0.095	0.021	mg/Kg	3850	NMED SSL	
0611B542-SB06-0910D-SO	280-16802-9	6/9/2011	9-10	RDX	121-82-4	0.11	J	0.19	0.041	mg/Kg	83.1	NMED SSL	
0611B542-SB07-0001D-S0	280-16802-13	6/9/2011	0-1	HMX	2691-41-0	0.67		0.097	0.022	mg/Kg	3850	NMED SSL	
0611B542-SB07-0405D-SO	280-16802-14	6/9/2011	4-5	HMX	2691-41-0	0.15		0.098	0.022	mg/Kg	3850	NMED SSL	
0611B542-SB08-0001D-S0	280-16802-1	6/9/2011	0-1	HMX	2691-41-0	0.54		0.098	0.022	mg/Kg	3850	NMED SSL	

Notes:

CAS	Chemical Abstracts Service
DC	Direct Contact
DL	Detection Limit
DUP	Duplicate
EPA	Environmental Protection Agency
HH	Human Health
ID	Identification
LOD	Limit of Detection
LOQ	Limit of Quantiation
mg/kg	milligrams per kilogram
NMED	New Mexico Environment Department
NS	No Standard
RCRA	Resource Conservation and Recovery Act
RSL	Regional Screening Level
SSL	Soil Screening Level
SWMU	Soil Waste Management Unit

Lab Qualifier Codes:

Organics

J	Indicates that the analyte is positively identified and the result is less than the LOQ but greater than the DL.
U	Not detected at the LOD

Validation Qualifier Codes:

J	The analyte was positively identified; the associated numerical value is the approximate concentration
U	Not detected at or above the LOD.

Sample ID nomenclature:

Sample ID's consist of a combination of Parcel, AOC, additional site identifier, purpose of sample, increment number, sample depth, sample type, and matrix.

Example: 0608B537AEC-0.0-0.5D-SO
Parcel: 06
SWMU: 08

Additional Site Identifier: B537 (in this case it's Building 537)
Source of Sample: A (in this case it's Building 537 Area A)
Purpose of Sample: EC (excavation confirmation)
Sample Depth: Depth of samples will be designated with a 4-digit number, the first 2 digits starting depth, second 2 digits bottom depth (in this case 0.0 to 0.5 feet)
Sample Type: D (Discrete)
Sample Matrix: SO (soil) (in this case soil)
DUP = Field Duplicate (when applicable)

Screening level exceedances indicated by red result and a yellow highlighted "YES".

1. Excavated - Sample location was excavated during the Permittee-Initiated Interim Measure.

+ Screening Level Sources:

NMED SSL and EPA RSL	The HH DC Value selected is the lowest NMED Direct Contact Screening Level (for residents, industrial/occupational workers, and construction workers) via NMED Risk Assessment Guidance for Site Investigations and Remediation, November 2022 Revised. If there is no NMED Direct Contact Screening Level, the lowest EPA Residential RSL is selected for a target excess cancer risk level of 1 x 10-5 or target noncancer hazard quotient of 1.0 (November 2024). The most recent screening levels published by NMED and USEPA at the time the risk evaluation is conducted will be used in the risk evaluation.

Table B.4-6 Parcel 6 SWMU 11: Method 6010B/7471A Metals Soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0611B542-SB01-0506D-SO	280-16863-7	6/10/2011	5-6	Arsenic	7440-38-2	3.2		2.6	0.69	mg/Kg	7.07	NMED SSL	
0611B542-SB01-0506D-SO	280-16863-7	6/10/2011	5-6	Barium	7440-39-3	210		2.1	0.079	mg/Kg	4390	NMED SSL	
0611B542-SB01-0506D-SO	280-16863-7	6/10/2011	5-6	Cadmium	7440-43-9	0.087	J	0.52	0.043	mg/Kg	70.5	NMED SSL	
0611B542-SB01-0506D-SO	280-16863-7	6/10/2011	5-6	Chromium	7440-47-3	9.2		3.6	0.06	mg/Kg	96.6	NMED SSL	
0611B542-SB01-0506D-SO	280-16863-7	6/10/2011	5-6	Lead	7439-92-1	9.9		0.94	0.28	mg/Kg	200	EPA RSL	
0611B542-SB01-0506D-SO	280-16863-7	6/10/2011	5-6	Mercury	7439-97-6	0.027		0.018	0.006	mg/kg	20.7	NMED SSL	
0611B542-SB01-1011D-SO	280-16863-9	6/10/2011	10-11	Arsenic	7440-38-2	1.4	J	2.5	0.65	mg/Kg	7.07	NMED SSL	
0611B542-SB01-1011D-SO	280-16863-9	6/10/2011	10-11	Barium	7440-39-3	630		2	0.075	mg/Kg	4390	NMED SSL	
0611B542-SB01-1011D-SO	280-16863-9	6/10/2011	10-11	Cadmium	7440-43-9	0.056	J	0.5	0.041	mg/Kg	70.5	NMED SSL	
0611B542-SB01-1011D-SO	280-16863-9	6/10/2011	10-11	Chromium	7440-47-3	10		3.5	0.057	mg/Kg	96.6	NMED SSL	
0611B542-SB01-1011D-SO	280-16863-9	6/10/2011	10-11	Lead	7439-92-1	7.5		0.89	0.27	mg/Kg	200	EPA RSL	
0611B542-SB01-1011D-SO	280-16863-9	6/10/2011	10-11	Mercury	7439-97-6	0.0098	J	0.016	0.0053	mg/kg	20.7	NMED SSL	
0611B542-SB01-1516D-SO	280-16863-10	6/10/2011	15-16	Barium	7440-39-3	42		2.1	0.078	mg/Kg	4390	NMED SSL	
0611B542-SB01-1516D-SO	280-16863-10	6/10/2011	15-16	Chromium	7440-47-3	17		3.6	0.06	mg/Kg	96.6	NMED SSL	
0611B542-SB01-1516D-SO	280-16863-10	6/10/2011	15-16	Lead	7439-92-1	9.7		0.93	0.28	mg/Kg	200	EPA RSL	
0611B542-SB01-2021D-SO	280-16863-11	6/10/2011	20-21	Arsenic	7440-38-2	1.6	J	2.7	0.71	mg/Kg	7.07	NMED SSL	
0611B542-SB01-2021D-SO	280-16863-11	6/10/2011	20-21	Barium	7440-39-3	370		2.2	0.082	mg/Kg	4390	NMED SSL	
0611B542-SB01-2021D-SO	280-16863-11	6/10/2011	20-21	Cadmium	7440-43-9	0.11	J	0.54	0.044	mg/Kg	70.5	NMED SSL	
0611B542-SB01-2021D-SO	280-16863-11	6/10/2011	20-21	Chromium	7440-47-3	17		3.8	0.063	mg/Kg	96.6	NMED SSL	
0611B542-SB01-2021D-SO	280-16863-11	6/10/2011	20-21	Lead	7439-92-1	13		0.97	0.29	mg/Kg	200	EPA RSL	
0611B542-SB01-6465D-SO	280-16863-12	6/10/2011	25-26	Arsenic	7440-38-2	2.4		2.4	0.64	mg/Kg	7.07	NMED SSL	
0611B542-SB01-6465D-SO	280-16863-12	6/10/2011	25-26	Barium	7440-39-3	160		1.9	0.073	mg/Kg	4390	NMED SSL	
0611B542-SB01-6465D-SO	280-16863-12	6/10/2011	25-26	Cadmium	7440-43-9	0.1	J	0.48	0.04	mg/Kg	70.5	NMED SSL	
0611B542-SB01-6465D-SO	280-16863-12	6/10/2011	25-26	Chromium	7440-47-3	8.6		3.4	0.056	mg/Kg	96.6	NMED SSL	
0611B542-SB01-6465D-SO	280-16863-12	6/10/2011	25-26	Lead	7439-92-1	8.8		0.87	0.26	mg/Kg	200	EPA RSL	
0611B542-SB02-0506D-SO	280-16863-3	6/10/2011	5-6	Arsenic	7440-38-2	2.4	J	2.8	0.75	mg/Kg	7.07	NMED SSL	
0611B542-SB02-0506D-SO	280-16863-3	6/10/2011	5-6	Barium	7440-39-3	210		2.3	0.086	mg/Kg	4390	NMED SSL	
0611B542-SB02-0506D-SO	280-16863-3	6/10/2011	5-6	Cadmium	7440-43-9	0.068	J	0.57	0.047	mg/Kg	70.5	NMED SSL	
0611B542-SB02-0506D-SO	280-16863-3	6/10/2011	5-6	Chromium	7440-47-3	8.3		4	0.066	mg/Kg	96.6	NMED SSL	
0611B542-SB02-0506D-SO	280-16863-3	6/10/2011	5-6	Lead	7439-92-1	8.2		1	0.31	mg/Kg	200	EPA RSL	
0611B542-SB02-0506D-SO	280-16863-3	6/10/2011	5-6	Mercury	7439-97-6	0.008	J	0.017	0.0056	mg/kg	20.7	NMED SSL	
0611B542-SB02-1011D-SO	280-16863-4	6/10/2011	10-11	Arsenic	7440-38-2	2.7		2.5	0.67	mg/Kg	7.07	NMED SSL	
0611B542-SB02-1011D-SO	280-16863-4	6/10/2011	10-11	Barium	7440-39-3	320		2	0.077	mg/Kg	4390	NMED SSL	
0611B542-SB02-1011D-SO	280-16863-4	6/10/2011	10-11	Cadmium	7440-43-9	0.084	J	0.5	0.041	mg/Kg	70.5	NMED SSL	

Table B.4-6 Parcel 6 SWMU 11: Method 6010B/7471A Metals Soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0611B542-SB02-1011D-SO	280-16863-4	6/10/2011	10-11	Chromium	7440-47-3	7.9		3.5	0.059	mg/Kg	96.6	NMED SSL	
0611B542-SB02-1011D-SO	280-16863-4	6/10/2011	10-11	Lead	7439-92-1	7.7		0.91	0.27	mg/Kg	200	EPA RSL	
0611B542-SB02-1011D-SO	280-16863-4	6/10/2011	10-11	Mercury	7439-97-6	0.0082	J	0.018	0.006	mg/kg	20.7	NMED SSL	
0611B542-SB02-1516D-SO	280-16863-5	6/10/2011	15-16	Barium	7440-39-3	420		2.2	0.085	mg/Kg	4390	NMED SSL	
0611B542-SB02-1516D-SO	280-16863-5	6/10/2011	15-16	Chromium	7440-47-3	14		3.9	0.065	mg/Kg	96.6	NMED SSL	
0611B542-SB02-1516D-SO	280-16863-5	6/10/2011	15-16	Lead	7439-92-1	12		1	0.3	mg/Kg	200	EPA RSL	
0611B542-SB02-6465D-SO	280-16863-6	6/10/2011	18-19	Arsenic	7440-38-2	0.99	J	2.5	0.65	mg/Kg	7.07	NMED SSL	
0611B542-SB02-6465D-SO	280-16863-6	6/10/2011	18-19	Barium	7440-39-3	390		2	0.075	mg/Kg	4390	NMED SSL	
0611B542-SB02-6465D-SO	280-16863-6	6/10/2011	18-19	Cadmium	7440-43-9	0.041	J	0.49	0.04	mg/Kg	70.5	NMED SSL	
0611B542-SB02-6465D-SO	280-16863-6	6/10/2011	18-19	Chromium	7440-47-3	20		3.4	0.057	mg/Kg	96.6	NMED SSL	
0611B542-SB02-6465D-SO	280-16863-6	6/10/2011	18-19	Lead	7439-92-1	11		0.89	0.27	mg/Kg	200	EPA RSL	
0611B542-SB03-0506D-SO	280-16908-1	6/13/2011	5-6	Arsenic	7440-38-2	3.8		2.6	0.7	mg/Kg	7.07	NMED SSL	
0611B542-SB03-0506D-SO	280-16908-1	6/13/2011	5-6	Barium	7440-39-3	220		2.1	0.08	mg/Kg	4390	NMED SSL	
0611B542-SB03-0506D-SO	280-16908-1	6/13/2011	5-6	Cadmium	7440-43-9	0.068	J	0.53	0.043	mg/Kg	70.5	NMED SSL	
0611B542-SB03-0506D-SO	280-16908-1	6/13/2011	5-6	Chromium	7440-47-3	8.3		3.7	0.061	mg/Kg	96.6	NMED SSL	
0611B542-SB03-0506D-SO	280-16908-1	6/13/2011	5-6	Lead	7439-92-1	9.1		0.95	0.29	mg/Kg	200	EPA RSL	
0611B542-SB03-0506D-SO	280-16908-1	6/13/2011	5-6	Mercury	7439-97-6	0.026		0.018	0.0058	mg/kg	20.7	NMED SSL	
0611B542-SB03-1011D-SO	280-16908-2	6/13/2011	10-11	Arsenic	7440-38-2	3.8		2.8	0.74	mg/Kg	7.07	NMED SSL	
0611B542-SB03-1011D-SO	280-16908-2	6/13/2011	10-11	Barium	7440-39-3	210		2.2	0.085	mg/Kg	4390	NMED SSL	
0611B542-SB03-1011D-SO	280-16908-2	6/13/2011	10-11	Cadmium	7440-43-9	0.1	J	0.56	0.046	mg/Kg	70.5	NMED SSL	
0611B542-SB03-1011D-SO	280-16908-2	6/13/2011	10-11	Chromium	7440-47-3	8.7		3.9	0.065	mg/Kg	96.6	NMED SSL	
0611B542-SB03-1011D-SO	280-16908-2	6/13/2011	10-11	Lead	7439-92-1	10		1	0.3	mg/Kg	200	EPA RSL	
0611B542-SB03-1011D-SO	280-16908-2	6/13/2011	10-11	Mercury	7439-97-6	0.034		0.019	0.0061	mg/kg	20.7	NMED SSL	
0611B542-SB03-1516D-SO	280-16908-3	6/13/2011	15-16	Arsenic	7440-38-2	1.6	J	2.8	0.73	mg/Kg	7.07	NMED SSL	
0611B542-SB03-1516D-SO	280-16908-3	6/13/2011	15-16	Barium	7440-39-3	190		2.2	0.085	mg/Kg	4390	NMED SSL	
0611B542-SB03-1516D-SO	280-16908-3	6/13/2011	15-16	Cadmium	7440-43-9	0.049	J	0.56	0.046	mg/Kg	70.5	NMED SSL	
0611B542-SB03-1516D-SO	280-16908-3	6/13/2011	15-16	Chromium	7440-47-3	15		3.9	0.065	mg/Kg	96.6	NMED SSL	
0611B542-SB03-1516D-SO	280-16908-3	6/13/2011	15-16	Lead	7439-92-1	9.3		1	0.3	mg/Kg	200	EPA RSL	
0611B542-SB03-2021D-SO	280-16908-4	6/13/2011	20-21	Arsenic	7440-38-2	1.6	J	2.5	0.67	mg/Kg	7.07	NMED SSL	
0611B542-SB03-2021D-SO	280-16908-4	6/13/2011	20-21	Barium	7440-39-3	300		2	0.077	mg/Kg	4390	NMED SSL	
0611B542-SB03-2021D-SO	280-16908-4	6/13/2011	20-21	Cadmium	7440-43-9	0.042	J	0.5	0.041	mg/Kg	70.5	NMED SSL	
0611B542-SB03-2021D-SO	280-16908-4	6/13/2011	20-21	Chromium	7440-47-3	14		3.5	0.058	mg/Kg	96.6	NMED SSL	
0611B542-SB03-2021D-SO	280-16908-4	6/13/2011	20-21	Lead	7439-92-1	10		0.91	0.27	mg/Kg	200	EPA RSL	
0611B542-SB03-6465D-SO	280-16908-5	6/13/2011	22-23	Arsenic	7440-38-2	1.8	J	2.8	0.73	mg/Kg	7.07	NMED SSL	

Table B.4-6 Parcel 6 SWMU 11: Method 6010B/7471A Metals Soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0611B542-SB03-6465D-SO	280-16908-5	6/13/2011	22-23	Barium	7440-39-3	410		2.2	0.084	mg/Kg	4390	NMED SSL	
0611B542-SB03-6465D-SO	280-16908-5	6/13/2011	22-23	Cadmium	7440-43-9	0.17	J	0.55	0.045	mg/Kg	70.5	NMED SSL	
0611B542-SB03-6465D-SO	280-16908-5	6/13/2011	22-23	Chromium	7440-47-3	11		3.9	0.064	mg/Kg	96.6	NMED SSL	
0611B542-SB03-6465D-SO	280-16908-5	6/13/2011	22-23	Lead	7439-92-1	8.3		0.99	0.3	mg/Kg	200	EPA RSL	
0611B542-SB04-0506D-SO	280-16908-9	6/13/2011	5-6	Arsenic	7440-38-2	4.8		2.3	0.61	mg/Kg	7.07	NMED SSL	
0611B542-SB04-0506D-SO	280-16908-9	6/13/2011	5-6	Barium	7440-39-3	700		1.9	0.071	mg/Kg	4390	NMED SSL	
0611B542-SB04-0506D-SO	280-16908-9	6/13/2011	5-6	Cadmium	7440-43-9	0.21	J	0.46	0.038	mg/Kg	70.5	NMED SSL	
0611B542-SB04-0506D-SO	280-16908-9	6/13/2011	5-6	Chromium	7440-47-3	4.2		3.2	0.054	mg/Kg	96.6	NMED SSL	
0611B542-SB04-0506D-SO	280-16908-9	6/13/2011	5-6	Lead	7439-92-1	6.7		0.84	0.25	mg/Kg	200	EPA RSL	
0611B542-SB04-0506D-SO	280-16908-9	6/13/2011	5-6	Mercury	7439-97-6	0.013	J	0.017	0.0056	mg/kg	20.7	NMED SSL	
0611B542-SB04-1011D-SO	280-16908-11	6/13/2011	10-11	Arsenic	7440-38-2	3.2		2.4	0.63	mg/Kg	7.07	NMED SSL	
0611B542-SB04-1011D-SO	280-16908-11	6/13/2011	10-11	Barium	7440-39-3	320		1.9	0.073	mg/Kg	4390	NMED SSL	
0611B542-SB04-1011D-SO	280-16908-11	6/13/2011	10-11	Cadmium	7440-43-9	0.098	J	0.48	0.039	mg/Kg	70.5	NMED SSL	
0611B542-SB04-1011D-SO	280-16908-11	6/13/2011	10-11	Chromium	7440-47-3	8.8		3.3	0.055	mg/Kg	96.6	NMED SSL	
0611B542-SB04-1011D-SO	280-16908-11	6/13/2011	10-11	Lead	7439-92-1	7.7		0.86	0.26	mg/Kg	200	EPA RSL	
0611B542-SB04-1011D-SO	280-16908-11	6/13/2011	10-11	Mercury	7439-97-6	0.0072	J	0.018	0.0058	mg/kg	20.7	NMED SSL	
0611B542-SB04-1516D-SO	280-16908-12	6/13/2011	15-16	Arsenic	7440-38-2	1.1	J	2.5	0.66	mg/Kg	7.07	NMED SSL	
0611B542-SB04-1516D-SO	280-16908-12	6/13/2011	15-16	Barium	7440-39-3	54		2	0.076	mg/Kg	4390	NMED SSL	
0611B542-SB04-1516D-SO	280-16908-12	6/13/2011	15-16	Cadmium	7440-43-9	0.043	J	0.5	0.041	mg/Kg	70.5	NMED SSL	
0611B542-SB04-1516D-SO	280-16908-12	6/13/2011	15-16	Chromium	7440-47-3	17		3.5	0.058	mg/Kg	96.6	NMED SSL	
0611B542-SB04-1516D-SO	280-16908-12	6/13/2011	15-16	Lead	7439-92-1	8.9		0.9	0.27	mg/Kg	200	EPA RSL	
0611B542-SB04-6465D-SO	280-16908-13	6/13/2011	16-17	Arsenic	7440-38-2	2.2	J	2.3	0.6	mg/Kg	7.07	NMED SSL	
0611B542-SB04-6465D-SO	280-16908-13	6/13/2011	16-17	Barium	7440-39-3	1200		9	0.34	mg/Kg	4390	NMED SSL	
0611B542-SB04-6465D-SO	280-16908-13	6/13/2011	16-17	Cadmium	7440-43-9	0.35	J	0.45	0.037	mg/Kg	70.5	NMED SSL	
0611B542-SB04-6465D-SO	280-16908-13	6/13/2011	16-17	Chromium	7440-47-3	5.7		3.2	0.052	mg/Kg	96.6	NMED SSL	
0611B542-SB04-6465D-SO	280-16908-13	6/13/2011	16-17	Lead	7439-92-1	6.4		0.81	0.24	mg/Kg	200	EPA RSL	
0611B542-SB05-0001D-S0	280-16958-6	6/14/2011	0-1	Arsenic	7440-38-2	1.4	J	2.5	0.66	mg/Kg	7.07	NMED SSL	
0611B542-SB05-0001D-S0	280-16958-6	6/14/2011	0-1	Barium	7440-39-3	170	J	2	0.076	mg/Kg	4390	NMED SSL	
0611B542-SB05-0001D-S0	280-16958-6	6/14/2011	0-1	Chromium	7440-47-3	5.1		3.5	0.058	mg/Kg	96.6	NMED SSL	
0611B542-SB05-0001D-S0	280-16958-6	6/14/2011	0-1	Lead	7439-92-1	4.4		0.9	0.27	mg/Kg	200	EPA RSL	
0611B542-SB05-0001D-S0	280-16958-6	6/14/2011	0-1	Mercury	7439-97-6	0.0067	J	0.018	0.0058	mg/kg	20.7	NMED SSL	
0611B542-SB05-0405D-SO	280-16958-8	6/14/2011	4-5	Arsenic	7440-38-2	3.3		2.4	0.64	mg/Kg	7.07	NMED SSL	
0611B542-SB05-0405D-SO	280-16958-8	6/14/2011	4-5	Barium	7440-39-3	400	J	1.9	0.074	mg/Kg	4390	NMED SSL	
0611B542-SB05-0405D-SO	280-16958-8	6/14/2011	4-5	Cadmium	7440-43-9	0.095	J	0.48	0.04	mg/Kg	70.5	NMED SSL	

Table B.4-6 Parcel 6 SWMU 11: Method 6010B/7471A Metals Soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0611B542-SB05-0405D-SO	280-16958-8	6/14/2011	4-5	Chromium	7440-47-3	4.7		3.4	0.056	mg/Kg	96.6	NMED SSL	
0611B542-SB05-0405D-SO	280-16958-8	6/14/2011	4-5	Lead	7439-92-1	4.6		0.87	0.26	mg/Kg	200	EPA RSL	
0611B542-SB05-0405D-SO	280-16958-8	6/14/2011	4-5	Mercury	7439-97-6	0.0059	J	0.016	0.0054	mg/kg	20.7	NMED SSL	
0611B542-SB05-0910D-SO	280-16958-9	6/14/2011	9-10	Arsenic	7440-38-2	3.4		2.6	0.68	mg/Kg	7.07	NMED SSL	
0611B542-SB05-0910D-SO	280-16958-9	6/14/2011	9-10	Barium	7440-39-3	250	J	2.1	0.078	mg/Kg	4390	NMED SSL	
0611B542-SB05-0910D-SO	280-16958-9	6/14/2011	9-10	Cadmium	7440-43-9	0.16	J	0.51	0.042	mg/Kg	70.5	NMED SSL	
0611B542-SB05-0910D-SO	280-16958-9	6/14/2011	9-10	Chromium	7440-47-3	5.6		3.6	0.06	mg/Kg	96.6	NMED SSL	
0611B542-SB05-0910D-SO	280-16958-9	6/14/2011	9-10	Lead	7439-92-1	5.1		0.93	0.28	mg/Kg	200	EPA RSL	
0611B542-SB05-0910D-SO	280-16958-9	6/14/2011	9-10	Mercury	7439-97-6	0.014	J	0.018	0.0058	mg/kg	20.7	NMED SSL	
0611B542-SB05-1920D-SO	280-16958-10	6/14/2011	19-20	Arsenic	7440-38-2	1.5	J	2.6	0.69	mg/Kg	7.07	NMED SSL	
0611B542-SB05-1920D-SO	280-16958-10	6/14/2011	19-20	Barium	7440-39-3	130	J	2.1	0.079	mg/Kg	4390	NMED SSL	
0611B542-SB05-1920D-SO	280-16958-10	6/14/2011	19-20	Cadmium	7440-43-9	0.044	J	0.52	0.043	mg/Kg	70.5	NMED SSL	
0611B542-SB05-1920D-SO	280-16958-10	6/14/2011	19-20	Chromium	7440-47-3	14		3.6	0.06	mg/Kg	96.6	NMED SSL	
0611B542-SB05-1920D-SO	280-16958-10	6/14/2011	19-20	Lead	7439-92-1	12		0.94	0.28	mg/Kg	200	EPA RSL	
0611B542-SB05-6465D-SO	280-16958-11	6/14/2011	21-22	Arsenic	7440-38-2	1.6	J	2.8	0.74	mg/Kg	7.07	NMED SSL	
0611B542-SB05-6465D-SO	280-16958-11	6/14/2011	21-22	Barium	7440-39-3	160	J	2.2	0.085	mg/Kg	4390	NMED SSL	
0611B542-SB05-6465D-SO	280-16958-11	6/14/2011	21-22	Chromium	7440-47-3	15		3.9	0.065	mg/Kg	96.6	NMED SSL	
0611B542-SB05-6465D-SO	280-16958-11	6/14/2011	21-22	Lead	7439-92-1	12		1	0.3	mg/Kg	200	EPA RSL	
0611B542-SB06-0001D-S0	280-16802-7	6/9/2011	0-1	Arsenic	7440-38-2	6.8		2.5	0.66	mg/Kg	7.07	NMED SSL	
0611B542-SB06-0001D-S0	280-16802-7	6/9/2011	0-1	Barium	7440-39-3	650	J	2	0.076	mg/Kg	4390	NMED SSL	
0611B542-SB06-0001D-S0	280-16802-7	6/9/2011	0-1	Cadmium	7440-43-9	0.16	J	0.5	0.041	mg/Kg	70.5	NMED SSL	
0611B542-SB06-0001D-S0	280-16802-7	6/9/2011	0-1	Chromium	7440-47-3	6.3		3.5	0.058	mg/Kg	96.6	NMED SSL	
0611B542-SB06-0001D-S0	280-16802-7	6/9/2011	0-1	Lead	7439-92-1	6.1		0.9	0.27	mg/Kg	200	EPA RSL	
0611B542-SB06-0405D-SO	280-16802-8	6/9/2011	4-5	Arsenic	7440-38-2	1.8	J	2.5	0.66	mg/Kg	7.07	NMED SSL	
0611B542-SB06-0405D-SO	280-16802-8	6/9/2011	4-5	Barium	7440-39-3	310	J	2	0.076	mg/Kg	4390	NMED SSL	
0611B542-SB06-0405D-SO	280-16802-8	6/9/2011	4-5	Chromium	7440-47-3	4.7		3.5	0.058	mg/Kg	96.6	NMED SSL	
0611B542-SB06-0405D-SO	280-16802-8	6/9/2011	4-5	Lead	7439-92-1	4.2		0.9	0.27	mg/Kg	200	EPA RSL	
0611B542-SB06-0910D-SO	280-16802-9	6/9/2011	9-10	Arsenic	7440-38-2	**8.7**		2.4	0.63	mg/Kg	7.07	NMED SSL	**YES**
0611B542-SB06-0910D-SO	280-16802-9	6/9/2011	9-10	Barium	7440-39-3	680	J	1.9	0.072	mg/Kg	4390	NMED SSL	
0611B542-SB06-0910D-SO	280-16802-9	6/9/2011	9-10	Cadmium	7440-43-9	0.2	J	0.48	0.039	mg/Kg	70.5	NMED SSL	
0611B542-SB06-0910D-SO	280-16802-9	6/9/2011	9-10	Chromium	7440-47-3	4		3.3	0.055	mg/Kg	96.6	NMED SSL	
0611B542-SB06-0910D-SO	280-16802-9	6/9/2011	9-10	Lead	7439-92-1	5.8		0.86	0.26	mg/Kg	200	EPA RSL	
0611B542-SB06-1920D-SO	280-16802-10	6/9/2011	19-20	Arsenic	7440-38-2	1.3	J	2.6	0.67	mg/Kg	7.07	NMED SSL	
0611B542-SB06-1920D-SO	280-16802-10	6/9/2011	19-20	Barium	7440-39-3	58	J	2	0.078	mg/Kg	4390	NMED SSL	

Table B.4-6 Parcel 6 SWMU 11: Method 6010B/7471A Metals Soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0611B542-SB06-1920D-SO	280-16802-10	6/9/2011	19-20	Chromium	7440-47-3	19		3.6	0.059	mg/Kg	96.6	NMED SSL	
0611B542-SB06-1920D-SO	280-16802-10	6/9/2011	19-20	Lead	7439-92-1	12		0.92	0.28	mg/Kg	200	EPA RSL	
0611B542-SB06-6465D-SO	280-16802-11	6/9/2011	22-23	Arsenic	7440-38-2	1.8	J	2.8	0.75	mg/Kg	7.07	NMED SSL	
0611B542-SB06-6465D-SO	280-16802-11	6/9/2011	22-23	Barium	7440-39-3	70	J	2.3	0.086	mg/Kg	4390	NMED SSL	
0611B542-SB06-6465D-SO	280-16802-11	6/9/2011	22-23	Chromium	7440-47-3	19		4	0.066	mg/Kg	96.6	NMED SSL	
0611B542-SB06-6465D-SO	280-16802-11	6/9/2011	22-23	Lead	7439-92-1	13		1	0.3	mg/Kg	200	EPA RSL	
0611B542-SB07-0001D-S0	280-16802-5	6/9/2011	0-1	Arsenic	7440-38-2	2.4	J	2.6	0.69	mg/Kg	7.07	NMED SSL	
0611B542-SB07-0001D-S0	280-16802-13	6/9/2011	0-1	Arsenic	7440-38-2	1.7	J	2.6	0.69	mg/Kg	7.07	NMED SSL	
0611B542-SB07-0001D-S0	280-16802-5	6/9/2011	0-1	Barium	7440-39-3	370	J	2.1	0.079	mg/Kg	4390	NMED SSL	
0611B542-SB07-0001D-S0	280-16802-13	6/9/2011	0-1	Barium	7440-39-3	81	J	2.1	0.079	mg/Kg	4390	NMED SSL	
0611B542-SB07-0001D-S0	280-16802-5	6/9/2011	0-1	Cadmium	7440-43-9	0.15	J	0.52	0.043	mg/Kg	70.5	NMED SSL	
0611B542-SB07-0001D-S0	280-16802-13	6/9/2011	0-1	Chromium	7440-47-3	5.3		3.6	0.06	mg/Kg	96.6	NMED SSL	
0611B542-SB07-0001D-S0	280-16802-5	6/9/2011	0-1	Chromium	7440-47-3	12		3.7	0.061	mg/Kg	96.6	NMED SSL	
0611B542-SB07-0001D-S0	280-16802-5	6/9/2011	0-1	Lead	7439-92-1	7.3		0.94	0.28	mg/Kg	200	EPA RSL	
0611B542-SB07-0001D-S0	280-16802-13	6/9/2011	0-1	Lead	7439-92-1	5.2		0.94	0.28	mg/Kg	200	EPA RSL	
0611B542-SB07-0405D-SO	280-16802-14	6/9/2011	4-5	Arsenic	7440-38-2	4.8		2.4	0.64	mg/Kg	7.07	NMED SSL	
0611B542-SB07-0405D-SO	280-16802-14	6/9/2011	4-5	Barium	7440-39-3	530	J	1.9	0.073	mg/Kg	4390	NMED SSL	
0611B542-SB07-0405D-SO	280-16802-14	6/9/2011	4-5	Cadmium	7440-43-9	0.18	J	0.48	0.04	mg/Kg	70.5	NMED SSL	
0611B542-SB07-0405D-SO	280-16802-14	6/9/2011	4-5	Chromium	7440-47-3	5.1		3.4	0.056	mg/Kg	96.6	NMED SSL	
0611B542-SB07-0405D-SO	280-16802-14	6/9/2011	4-5	Lead	7439-92-1	5.3		0.87	0.26	mg/Kg	200	EPA RSL	
0611B542-SB07-0405D-SO	280-16802-14	6/9/2011	4-5	Mercury	7439-97-6	0.0059	J	0.018	0.0057	mg/kg	20.7	NMED SSL	
0611B542-SB07-0910D-SO	280-16802-15	6/9/2011	9-10	Arsenic	7440-38-2	6.1		2.5	0.65	mg/Kg	7.07	NMED SSL	
0611B542-SB07-0910D-SO	280-16802-15	6/9/2011	9-10	Barium	7440-39-3	720	J	2	0.075	mg/Kg	4390	NMED SSL	
0611B542-SB07-0910D-SO	280-16802-15	6/9/2011	9-10	Cadmium	7440-43-9	0.12	J	0.49	0.04	mg/Kg	70.5	NMED SSL	
0611B542-SB07-0910D-SO	280-16802-15	6/9/2011	9-10	Chromium	7440-47-3	9.1		3.4	0.057	mg/Kg	96.6	NMED SSL	
0611B542-SB07-0910D-SO	280-16802-15	6/9/2011	9-10	Lead	7439-92-1	7.5		0.89	0.27	mg/Kg	200	EPA RSL	
0611B542-SB07-1920D-SO	280-16802-16	6/9/2011	19-20	Arsenic	7440-38-2	1.4	J	2.8	0.73	mg/Kg	7.07	NMED SSL	
0611B542-SB07-1920D-SO	280-16802-16	6/9/2011	19-20	Barium	7440-39-3	300	J	2.2	0.084	mg/Kg	4390	NMED SSL	
0611B542-SB07-1920D-SO	280-16802-16	6/9/2011	19-20	Chromium	7440-47-3	15		3.9	0.064	mg/Kg	96.6	NMED SSL	
0611B542-SB07-1920D-SO	280-16802-16	6/9/2011	19-20	Lead	7439-92-1	8.9		0.99	0.3	mg/Kg	200	EPA RSL	
0611B542-SB07-6465D-SO	280-16802-17	6/9/2011	21-22	Arsenic	7440-38-2	1.3	J	2.9	0.78	mg/Kg	7.07	NMED SSL	
0611B542-SB07-6465D-SO	280-16802-17	6/9/2011	21-22	Barium	7440-39-3	80	J	2.3	0.089	mg/Kg	4390	NMED SSL	
0611B542-SB07-6465D-SO	280-16802-17	6/9/2011	21-22	Chromium	7440-47-3	20		4.1	0.068	mg/Kg	96.6	NMED SSL	
0611B542-SB07-6465D-SO	280-16802-17	6/9/2011	21-22	Lead	7439-92-1	13		1.1	0.32	mg/Kg	200	EPA RSL	

Table B.4-6 Parcel 6 SWMU 11: Method 6010B/7471A Metals Soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0611B542-SB08-0001D-S0	280-16802-1	6/9/2011	0-1	Arsenic	7440-38-2	3.3		2.6	0.69	mg/Kg	7.07	NMED SSL	
0611B542-SB08-0001D-S0	280-16802-1	6/9/2011	0-1	Barium	7440-39-3	840	J	2.1	0.079	mg/Kg	4390	NMED SSL	
0611B542-SB08-0001D-S0	280-16802-1	6/9/2011	0-1	Cadmium	7440-43-9	0.16	J	0.52	0.043	mg/Kg	70.5	NMED SSL	
0611B542-SB08-0001D-S0	280-16802-1	6/9/2011	0-1	Chromium	7440-47-3	6.4		3.7	0.061	mg/Kg	96.6	NMED SSL	
0611B542-SB08-0001D-S0	280-16802-1	6/9/2011	0-1	Lead	7439-92-1	6.9		0.94	0.28	mg/Kg	200	EPA RSL	
0611B542-SB08-0405D-SO	280-16802-2	6/9/2011	4-5	Arsenic	7440-38-2	2.8		2.3	0.61	mg/Kg	7.07	NMED SSL	
0611B542-SB08-0405D-SO	280-16802-2	6/9/2011	4-5	Barium	7440-39-3	590	J	1.9	0.07	mg/Kg	4390	NMED SSL	
0611B542-SB08-0405D-SO	280-16802-2	6/9/2011	4-5	Cadmium	7440-43-9	0.12	J	0.46	0.038	mg/Kg	70.5	NMED SSL	
0611B542-SB08-0405D-SO	280-16802-2	6/9/2011	4-5	Chromium	7440-47-3	11		3.2	0.054	mg/Kg	96.6	NMED SSL	
0611B542-SB08-0405D-SO	280-16802-2	6/9/2011	4-5	Lead	7439-92-1	13		0.83	0.25	mg/Kg	200	EPA RSL	
0611B542-SB08-0910D-SO	280-16802-3	6/9/2011	9-10	Arsenic	7440-38-2	3.8		2.7	0.7	mg/Kg	7.07	NMED SSL	
0611B542-SB08-0910D-SO	280-16802-3	6/9/2011	9-10	Barium	7440-39-3	360	J	2.1	0.081	mg/Kg	4390	NMED SSL	
0611B542-SB08-0910D-SO	280-16802-3	6/9/2011	9-10	Cadmium	7440-43-9	0.17	J	0.53	0.044	mg/Kg	70.5	NMED SSL	
0611B542-SB08-0910D-SO	280-16802-3	6/9/2011	9-10	Chromium	7440-47-3	4.7		3.7	0.062	mg/Kg	96.6	NMED SSL	
0611B542-SB08-0910D-SO	280-16802-3	6/9/2011	9-10	Lead	7439-92-1	5.4		0.96	0.29	mg/Kg	200	EPA RSL	
0611B542-SB08-0910D-SO	280-16802-3	6/9/2011	9-10	Mercury	7439-97-6	0.0078	J	0.016	0.0053	mg/kg	20.7	NMED SSL	
0611B542-SB08-1920D-SO	280-16802-4	6/9/2011	19-20	Arsenic	7440-38-2	1.6	J	2.5	0.67	mg/Kg	7.07	NMED SSL	
0611B542-SB08-1920D-SO	280-16802-4	6/9/2011	19-20	Barium	7440-39-3	1400	J	20	0.77	mg/Kg	4390	NMED SSL	
0611B542-SB08-1920D-SO	280-16802-4	6/9/2011	19-20	Cadmium	7440-43-9	0.12	J	0.5	0.041	mg/Kg	70.5	NMED SSL	
0611B542-SB08-1920D-SO	280-16802-4	6/9/2011	19-20	Chromium	7440-47-3	12		3.5	0.059	mg/Kg	96.6	NMED SSL	
0611B542-SB08-1920D-SO	280-16802-4	6/9/2011	19-20	Lead	7439-92-1	6.5		0.91	0.27	mg/Kg	200	EPA RSL	
0611B542-SB09-001D-SO	280-16908-6	6/13/2011	0-1	Arsenic	7440-38-2	3.2		2.4	0.63	mg/Kg	7.07	NMED SSL	
0611B542-SB09-001D-SO	280-16908-6	6/13/2011	0-1	Barium	7440-39-3	270		1.9	0.073	mg/Kg	4390	NMED SSL	
0611B542-SB09-001D-SO	280-16908-6	6/13/2011	0-1	Cadmium	7440-43-9	0.37	J	0.48	0.039	mg/Kg	70.5	NMED SSL	
0611B542-SB09-001D-SO	280-16908-6	6/13/2011	0-1	Chromium	7440-47-3	8.9		3.4	0.056	mg/Kg	96.6	NMED SSL	
0611B542-SB09-001D-SO	280-16908-6	6/13/2011	0-1	Lead	7439-92-1	15		0.86	0.26	mg/Kg	200	EPA RSL	
0611B542-SB09-001D-SO	280-16908-6	6/13/2011	0-1	Mercury	7439-97-6	0.013	J	0.017	0.0056	mg/kg	20.7	NMED SSL	
0611B542-SB09-0405D-SO	280-16908-7	6/13/2011	4-5	Arsenic	7440-38-2	9		2.6	0.69	mg/Kg	7.07	NMED SSL	YES
0611B542-SB09-0405D-SO	280-16908-7	6/13/2011	4-5	Barium	7440-39-3	540		2.1	0.08	mg/Kg	4390	NMED SSL	
0611B542-SB09-0405D-SO	280-16908-7	6/13/2011	4-5	Cadmium	7440-43-9	0.25	J	0.52	0.043	mg/Kg	70.5	NMED SSL	
0611B542-SB09-0405D-SO	280-16908-7	6/13/2011	4-5	Chromium	7440-47-3	8.1		3.7	0.061	mg/Kg	96.6	NMED SSL	
0611B542-SB09-0405D-SO	280-16908-7	6/13/2011	4-5	Lead	7439-92-1	34		0.94	0.28	mg/Kg	200	EPA RSL	
0611B542-SB09-0405D-SO	280-16908-7	6/13/2011	4-5	Mercury	7439-97-6	0.035		0.018	0.0059	mg/kg	20.7	NMED SSL	
0611B542-SB10-0405D-SO	280-16958-13	6/14/2011	4-5	Arsenic	7440-38-2	2.2	J	2.4	0.63	mg/Kg	7.07	NMED SSL	

Table B.4-6 Parcel 6 SWMU 11: Method 6010B/7471A Metals Soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0611B542-SB10-0405D-SO	280-16958-13	6/14/2011	4-5	Barium	7440-39-3	200	J	1.9	0.073	mg/Kg	4390	NMED SSL	
0611B542-SB10-0405D-SO	280-16958-13	6/14/2011	4-5	Cadmium	7440-43-9	0.049	J	0.48	0.039	mg/Kg	70.5	NMED SSL	
0611B542-SB10-0405D-SO	280-16958-13	6/14/2011	4-5	Chromium	7440-47-3	6.5		3.4	0.056	mg/Kg	96.6	NMED SSL	
0611B542-SB10-0405D-SO	280-16958-13	6/14/2011	4-5	Lead	7439-92-1	6.3		0.86	0.26	mg/Kg	200	EPA RSL	
0611B542-SB10-0405D-SO	280-16958-13	6/14/2011	4-5	Mercury	7439-97-6	0.0086	J	0.018	0.0057	mg/kg	20.7	NMED SSL	
0611B542-SB10-0910D-SO	280-16958-14	6/14/2011	9-10	Arsenic	7440-38-2	3.7		2.4	0.64	mg/Kg	7.07	NMED SSL	
0611B542-SB10-0910D-SO	280-16958-14	6/14/2011	9-10	Barium	7440-39-3	260	J	1.9	0.074	mg/Kg	4390	NMED SSL	
0611B542-SB10-0910D-SO	280-16958-14	6/14/2011	9-10	Cadmium	7440-43-9	0.084	J	0.49	0.04	mg/Kg	70.5	NMED SSL	
0611B542-SB10-0910D-SO	280-16958-14	6/14/2011	9-10	Chromium	7440-47-3	12		3.4	0.056	mg/Kg	96.6	NMED SSL	
0611B542-SB10-0910D-SO	280-16958-14	6/14/2011	9-10	Lead	7439-92-1	11		0.88	0.26	mg/Kg	200	EPA RSL	
0611B542-SB10-0910D-SO	280-16958-14	6/14/2011	9-10	Mercury	7439-97-6	0.019		0.017	0.0055	mg/kg	20.7	NMED SSL	
0611B542-SB10-6465D-SO	280-17036-2	6/15/2011	41-42	Arsenic	7440-38-2	3.7		2.7	0.72	mg/Kg	7.07	NMED SSL	
0611B542-SB10-6465D-SO	280-17036-2	6/15/2011	41-42	Barium	7440-39-3	97		2.2	0.083	mg/Kg	4390	NMED SSL	
0611B542-SB10-6465D-SO	280-17036-2	6/15/2011	41-42	Cadmium	7440-43-9	0.069	J	0.54	0.045	mg/Kg	70.5	NMED SSL	
0611B542-SB10-6465D-SO	280-17036-2	6/15/2011	41-42	Chromium	7440-47-3	5.4		3.8	0.063	mg/Kg	96.6	NMED SSL	
0611B542-SB10-6465D-SO	280-17036-2	6/15/2011	41-42	Lead	7439-92-1	6.4		0.98	0.29	mg/Kg	200	EPA RSL	
0611B542-SB11-0405D-SO	280-16958-1	6/14/2011	4-5	Arsenic	7440-38-2	2.4	J	2.7	0.71	mg/Kg	7.07	NMED SSL	
0611B542-SB11-0405D-SO	280-16958-1	6/14/2011	4-5	Barium	7440-39-3	210	J	2.1	0.082	mg/Kg	4390	NMED SSL	
0611B542-SB11-0405D-SO	280-16958-1	6/14/2011	4-5	Cadmium	7440-43-9	0.068	J	0.54	0.044	mg/Kg	70.5	NMED SSL	
0611B542-SB11-0405D-SO	280-16958-1	6/14/2011	4-5	Chromium	7440-47-3	9		3.8	0.062	mg/Kg	96.6	NMED SSL	
0611B542-SB11-0405D-SO	280-16958-1	6/14/2011	4-5	Lead	7439-92-1	8		0.97	0.29	mg/Kg	200	EPA RSL	
0611B542-SB11-0405D-SO	280-16958-1	6/14/2011	4-5	Mercury	7439-97-6	0.011	J	0.018	0.0059	mg/kg	20.7	NMED SSL	
0611B542-SB11-0910D-SO	280-16958-3	6/14/2011	9-10	Arsenic	7440-38-2	2.5		2.4	0.64	mg/Kg	7.07	NMED SSL	
0611B542-SB11-0910D-SO	280-16958-3	6/14/2011	9-10	Barium	7440-39-3	110	J	1.9	0.074	mg/Kg	4390	NMED SSL	
0611B542-SB11-0910D-SO	280-16958-3	6/14/2011	9-10	Cadmium	7440-43-9	0.053	J	0.49	0.04	mg/Kg	70.5	NMED SSL	
0611B542-SB11-0910D-SO	280-16958-3	6/14/2011	9-10	Chromium	7440-47-3	9.1		3.4	0.056	mg/Kg	96.6	NMED SSL	
0611B542-SB11-0910D-SO	280-16958-3	6/14/2011	9-10	Lead	7439-92-1	7.7		0.87	0.26	mg/Kg	200	EPA RSL	
0611B542-SB11-0910D-SO	280-16958-3	6/14/2011	9-10	Mercury	7439-97-6	0.011	J	0.017	0.0057	mg/kg	20.7	NMED SSL	
0611B542-SB11-1920D-SO	280-16958-4	6/14/2011	19-20	Arsenic	7440-38-2	3.2		2.5	0.67	mg/Kg	7.07	NMED SSL	
0611B542-SB11-1920D-SO	280-16958-4	6/14/2011	19-20	Barium	7440-39-3	210	J	2	0.077	mg/Kg	4390	NMED SSL	
0611B542-SB11-1920D-SO	280-16958-4	6/14/2011	19-20	Cadmium	7440-43-9	0.066	J	0.51	0.042	mg/Kg	70.5	NMED SSL	
0611B542-SB11-1920D-SO	280-16958-4	6/14/2011	19-20	Chromium	7440-47-3	7.5		3.6	0.059	mg/Kg	96.6	NMED SSL	
0611B542-SB11-1920D-SO	280-16958-4	6/14/2011	19-20	Lead	7439-92-1	8.2		0.92	0.27	mg/Kg	200	EPA RSL	
0611B542-SB11-1920D-SO	280-16958-4	6/14/2011	19-20	Mercury	7439-97-6	0.015	J	0.017	0.0057	mg/kg	20.7	NMED SSL	

Table B.4-6 Parcel 6 SWMU 11: Method 6010B/7471A Metals Soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0611B542-SB11-6465D-SO	280-16958-5	6/14/2011	38-39	Arsenic	7440-38-2	2.1	J	2.6	0.7	mg/Kg	7.07	NMED SSL	
0611B542-SB11-6465D-SO	280-16958-5	6/14/2011	38-39	Barium	7440-39-3	580	J	2.1	0.08	mg/Kg	4390	NMED SSL	
0611B542-SB11-6465D-SO	280-16958-5	6/14/2011	38-39	Chromium	7440-47-3	12		3.7	0.061	mg/Kg	96.6	NMED SSL	
0611B542-SB11-6465D-SO	280-16958-5	6/14/2011	38-39	Lead	7439-92-1	8.7		0.95	0.29	mg/Kg	200	EPA RSL	
0611B542-SB12-0001D-S0	280-16908-14	6/13/2011	0-1	Arsenic	7440-38-2	2.7		2.5	0.67	mg/Kg	7.07	NMED SSL	
0611B542-SB12-0001D-S0	280-16908-14	6/13/2011	0-1	Barium	7440-39-3	210		2	0.077	mg/Kg	4390	NMED SSL	
0611B542-SB12-0001D-S0	280-16908-14	6/13/2011	0-1	Cadmium	7440-43-9	0.072	J	0.51	0.042	mg/Kg	70.5	NMED SSL	
0611B542-SB12-0001D-S0	280-16908-14	6/13/2011	0-1	Chromium	7440-47-3	6.9		3.5	0.059	mg/Kg	96.6	NMED SSL	
0611B542-SB12-0001D-S0	280-16908-14	6/13/2011	0-1	Lead	7439-92-1	6.3		0.91	0.27	mg/Kg	200	EPA RSL	
0611B542-SB12-0001D-S0	280-16908-14	6/13/2011	0-1	Mercury	7439-97-6	0.01	J	0.018	0.0058	mg/kg	20.7	NMED SSL	
0611B542-SB12-0405D-SO	280-16908-15	6/13/2011	4-5	Arsenic	7440-38-2	1.7	J	2.6	0.67	mg/Kg	7.07	NMED SSL	
0611B542-SB12-0405D-SO	280-16908-15	6/13/2011	4-5	Barium	7440-39-3	160		2	0.078	mg/Kg	4390	NMED SSL	
0611B542-SB12-0405D-SO	280-16908-15	6/13/2011	4-5	Chromium	7440-47-3	4.6		3.6	0.059	mg/Kg	96.6	NMED SSL	
0611B542-SB12-0405D-SO	280-16908-15	6/13/2011	4-5	Lead	7439-92-1	4.4		0.92	0.28	mg/Kg	200	EPA RSL	
0611B542-SB12-0910D-SO	280-16908-16	6/13/2011	9-10	Arsenic	7440-38-2	4.1		2.5	0.66	mg/Kg	7.07	NMED SSL	
0611B542-SB12-0910D-SO	280-16908-16	6/13/2011	9-10	Barium	7440-39-3	330		2	0.075	mg/Kg	4390	NMED SSL	
0611B542-SB12-0910D-SO	280-16908-16	6/13/2011	9-10	Cadmium	7440-43-9	0.11	J	0.5	0.041	mg/Kg	70.5	NMED SSL	
0611B542-SB12-0910D-SO	280-16908-16	6/13/2011	9-10	Chromium	7440-47-3	14		3.5	0.058	mg/Kg	96.6	NMED SSL	
0611B542-SB12-0910D-SO	280-16908-16	6/13/2011	9-10	Lead	7439-92-1	12		0.89	0.27	mg/Kg	200	EPA RSL	
0611B542-SB12-0910D-SO	280-16908-16	6/13/2011	9-10	Mercury	7439-97-6	0.034		0.017	0.0054	mg/kg	20.7	NMED SSL	
0611B542-SB13-0405D-SO	280-17036-3	6/15/2011	4-5	Arsenic	7440-38-2	2.4		2.3	0.6	mg/Kg	7.07	NMED SSL	
0611B542-SB13-0405D-SO	280-17036-3	6/15/2011	4-5	Barium	7440-39-3	190		1.8	0.069	mg/Kg	4390	NMED SSL	
0611B542-SB13-0405D-SO	280-17036-3	6/15/2011	4-5	Cadmium	7440-43-9	0.047	J	0.45	0.037	mg/Kg	70.5	NMED SSL	
0611B542-SB13-0405D-SO	280-17036-3	6/15/2011	4-5	Chromium	7440-47-3	6.9		3.2	0.052	mg/Kg	96.6	NMED SSL	
0611B542-SB13-0405D-SO	280-17036-3	6/15/2011	4-5	Lead	7439-92-1	6.4		0.81	0.24	mg/Kg	200	EPA RSL	
0611B542-SB13-0910D-SO	280-17036-4	6/15/2011	9-10	Arsenic	7440-38-2	2.9		2.5	0.66	mg/Kg	7.07	NMED SSL	
0611B542-SB13-0910D-SO	280-17036-4	6/15/2011	9-10	Barium	7440-39-3	160		2	0.076	mg/Kg	4390	NMED SSL	
0611B542-SB13-0910D-SO	280-17036-4	6/15/2011	9-10	Cadmium	7440-43-9	0.081	J	0.5	0.041	mg/Kg	70.5	NMED SSL	
0611B542-SB13-0910D-SO	280-17036-4	6/15/2011	9-10	Chromium	7440-47-3	9		3.5	0.058	mg/Kg	96.6	NMED SSL	
0611B542-SB13-0910D-SO	280-17036-4	6/15/2011	9-10	Lead	7439-92-1	8.1		0.9	0.27	mg/Kg	200	EPA RSL	
0611B542-SB13-0910D-SO	280-17036-4	6/15/2011	9-10	Mercury	7439-97-6	0.0065	J	0.016	0.0053	mg/kg	20.7	NMED SSL	
0611B542-SB13-1920D-SO	280-17036-6	6/15/2011	19-20	Arsenic	7440-38-2	2.8		2.3	0.62	mg/Kg	7.07	NMED SSL	
0611B542-SB13-1920D-SO	280-17036-6	6/15/2011	19-20	Barium	7440-39-3	180		1.9	0.071	mg/Kg	4390	NMED SSL	
0611B542-SB13-1920D-SO	280-17036-6	6/15/2011	19-20	Cadmium	7440-43-9	0.049	J	0.47	0.038	mg/Kg	70.5	NMED SSL	

Table B.4-6 Parcel 6 SWMU 11: Method 6010B/7471A Metals Soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0611B542-SB13-1920D-SO	280-17036-6	6/15/2011	19-20	Chromium	7440-47-3	5.9		3.3	0.054	mg/Kg	96.6	NMED SSL	
0611B542-SB13-1920D-SO	280-17036-6	6/15/2011	19-20	Lead	7439-92-1	6.2		0.84	0.25	mg/Kg	200	EPA RSL	
0611B542-SB13-1920D-SO	280-17036-6	6/15/2011	19-20	Mercury	7439-97-6	0.0068	J	0.017	0.0054	mg/kg	20.7	NMED SSL	
0611B542-SB13-6465D-SO	280-17036-7	6/15/2011	43-44	Arsenic	7440-38-2	4		2.6	0.67	mg/Kg	7.07	NMED SSL	
0611B542-SB13-6465D-SO	280-17036-7	6/15/2011	43-44	Barium	7440-39-3	340		2	0.078	mg/Kg	4390	NMED SSL	
0611B542-SB13-6465D-SO	280-17036-7	6/15/2011	43-44	Cadmium	7440-43-9	0.098	J	0.51	0.042	mg/Kg	70.5	NMED SSL	
0611B542-SB13-6465D-SO	280-17036-7	6/15/2011	43-44	Chromium	7440-47-3	21		3.6	0.059	mg/Kg	96.6	NMED SSL	
0611B542-SB13-6465D-SO	280-17036-7	6/15/2011	43-44	Lead	7439-92-1	14		0.92	0.28	mg/Kg	200	EPA RSL	
0611B542-SB13-6465D-SO	280-17036-7	6/15/2011	43-44	Mercury	7439-97-6	0.012	J	0.018	0.0059	mg/kg	20.7	NMED SSL	

Notes:

CAS	Chemical Abstracts Service
DC	Direct Contact
DL	Detection Limit
DUP	Duplicate
EPA	Environmental Protection Agency
HH	Human Health
ID	Identification
LOD	Limit of Detection
LOQ	Limit of Quantiation
mg/kg	milligrams per kilogram
NMED	New Mexico Environment Department
NS	No Standard
RCRA	Resource Conservation and Recovery Act
RSL	Regional Screening Level
SSL	Soil Screening Level
SWMU	Soil Waste Management Unit

Lab Qualifier Codes:

Organics

J	Indicates that the analyte is positively identified and the result is less than the LOQ but greater than the DL.
U	Not detected at the LOD

Validation Qualifier Codes:

J	The analyte was positively identified; the associated numerical value is the approximate concentration
U	Not detected at or above the LOD.

Sample ID nomenclature:

Sample ID's consist of a combination of Parcel, AOC, additional site identifier, purpose of sample, increment number, sample depth, sample type, and matrix.

Example: 0608B537AEC-0.0-0.5D-SO
Parcel: 06
SWMU: 08

Additional Site Identifier: B537 (in this case it's Building 537)
Source of Sample: A (in this case it's Building 537 Area A)
Purpose of Sample: EC (excavation confirmation)
Sample Depth: Depth of samples will be designated with a 4-digit number, the first 2 digits starting depth, second 2 digits bottom depth (in this case 0.0 to 0.5 feet)
Sample Type: D (Discrete)
Sample Matrix: SO (soil) (in this case soil)
DUP = Field Duplicate (when applicable)

Screening level exceedances indicated by red result and a yellow highlighted "YES".

1. Excavated - Sample location was excavated during the Permittee-Initiated Interim Measure.

+ Screening Level Sources:

NMED SSL and EPA RSL	The HH DC Value selected is the lowest NMED Direct Contact Screening Level (for residents, industrial/occupational workers, and construction workers) via NMED Risk Assessment Guidance for Site Investigations and Remediation, November 2022 Revised. If there is no NMED Direct Contact Screening Level, the lowest EPA Residential RSL is selected for a target excess cancer risk level of 1 x 10-5 or target noncancer hazard quotient of 1.0 (November 2024). The most recent screening levels published by NMED and USEPA at the time the risk evaluation is conducted will be used in the risk evaluation.

Table B.4-7 Parcel 6 SWMU 11: Method 6860 Perchlorate Soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0611B542-SB01-0506D-SO	280-16863-7	6/10/2011	5-6	Perchlorate	14797-73-0	0.000083	J	0.0006	0.000048	mg/kg	54.8	NMED SSL	
0611B542-SB01-1011D-SO	280-16863-9	6/10/2011	10-11	Perchlorate	14797-73-0	0.000084	J	0.00052	0.000041	mg/kg	54.8	NMED SSL	
0611B542-SB02-0506D-SO	280-16863-3	6/10/2011	5-6	Perchlorate	14797-73-0	0.000084	J	0.00054	0.000043	mg/kg	54.8	NMED SSL	
0611B542-SB02-1011D-SO	280-16863-4	6/10/2011	10-11	Perchlorate	14797-73-0	0.000079	J	0.00053	0.000042	mg/kg	54.8	NMED SSL	
0611B542-SB03-0506D-SO	280-16908-1	6/13/2011	5-6	Perchlorate	14797-73-0	0.00046	J	0.00052	0.000041	mg/kg	54.8	NMED SSL	
0611B542-SB03-1011D-SO	280-16908-2	6/13/2011	10-11	Perchlorate	14797-73-0	0.00073		0.00059	0.000047	mg/kg	54.8	NMED SSL	
0611B542-SB05-0001D-S0	280-16958-6	6/14/2011	0-1	Perchlorate	14797-73-0	0.00017	J	0.00053	0.000042	mg/kg	54.8	NMED SSL	
0611B542-SB05-1920D-SO	280-16958-10	6/14/2011	19-20	Perchlorate	14797-73-0	0.000054	J	0.00057	0.000046	mg/kg	54.8	NMED SSL	
0611B542-SB06-0001D-S0	280-16802-7	6/9/2011	0-1	Perchlorate	14797-73-0	0.00058		0.00052	0.000042	mg/kg	54.8	NMED SSL	
0611B542-SB06-0910D-SO	280-16802-9	6/9/2011	9-10	Perchlorate	14797-73-0	0.00023	J	0.00051	0.000041	mg/kg	54.8	NMED SSL	
0611B542-SB06-6465D-SO	280-16802-11	6/9/2011	22-23	Perchlorate	14797-73-0	0.000046	J	0.00056	0.000045	mg/kg	54.8	NMED SSL	
0611B542-SB07-0001D-S0	280-16802-13	6/9/2011	0-1	Perchlorate	14797-73-0	0.00021	J	0.00052	0.000042	mg/kg	54.8	NMED SSL	
0611B542-SB07-1920D-SO	280-16802-16	6/9/2011	19-20	Perchlorate	14797-73-0	0.00016	J	0.00055	0.000044	mg/kg	54.8	NMED SSL	
0611B542-SB09-001D-SO	280-16908-6	6/13/2011	0-1	Perchlorate	14797-73-0	0.00021	J	0.0005	0.00004	mg/kg	54.8	NMED SSL	
0611B542-SB09-0405D-SO	280-16908-7	6/13/2011	4-5	Perchlorate	14797-73-0	0.00056		0.00054	0.000043	mg/kg	54.8	NMED SSL	
0611B542-SB10-0405D-SO	280-16958-13	6/14/2011	4-5	Perchlorate	14797-73-0	0.00033	J	0.00051	0.000041	mg/kg	54.8	NMED SSL	
0611B542-SB10-0910D-SO	280-16958-14	6/14/2011	9-10	Perchlorate	14797-73-0	0.00021	J	0.00055	0.000044	mg/kg	54.8	NMED SSL	
0611B542-SB10-6465D-SO	280-17036-2	6/15/2011	41-42	Perchlorate	14797-73-0	0.00019	J	0.00057	0.000046	mg/kg	54.8	NMED SSL	
0611B542-SB11-0405D-SO	280-16958-1	6/14/2011	4-5	Perchlorate	14797-73-0	0.00029	J	0.00049	0.000039	mg/kg	54.8	NMED SSL	
0611B542-SB11-0910D-SO	280-16958-3	6/14/2011	9-10	Perchlorate	14797-73-0	0.000069	J	0.00053	0.000043	mg/kg	54.8	NMED SSL	
0611B542-SB11-1920D-SO	280-16958-4	6/14/2011	19-20	Perchlorate	14797-73-0	0.0026		0.0005	0.00004	mg/kg	54.8	NMED SSL	
0611B542-SB11-6465D-SO	280-16958-5	6/14/2011	38-39	Perchlorate	14797-73-0	0.00025	J	0.00052	0.000041	mg/kg	54.8	NMED SSL	
0611B542-SB12-0001D-S0	280-16908-14	6/13/2011	0-1	Perchlorate	14797-73-0	0.00042	J	0.0005	0.00004	mg/kg	54.8	NMED SSL	
0611B542-SB12-0910D-SO	280-16908-16	6/13/2011	9-10	Perchlorate	14797-73-0	0.00079		0.00052	0.000042	mg/kg	54.8	NMED SSL	
0611B542-SB13-0405D-SO	280-17036-3	6/15/2011	4-5	Perchlorate	14797-73-0	0.00014	J	0.00051	0.000041	mg/kg	54.8	NMED SSL	
0611B542-SB13-0910D-SO	280-17036-4	6/15/2011	9-10	Perchlorate	14797-73-0	0.0024		0.00054	0.000043	mg/kg	54.8	NMED SSL	
0611B542-SB13-1920D-SO	280-17036-6	6/15/2011	19-20	Perchlorate	14797-73-0	0.0019		0.00049	0.000039	mg/kg	54.8	NMED SSL	
0611B542-SB13-6465D-SO	280-17036-7	6/15/2011	43-44	Perchlorate	14797-73-0	0.0017		0.00054	0.000044	mg/kg	54.8	NMED SSL	

Notes:

CAS	Chemical Abstracts Service
DC	Direct Contact
DL	Detection Limit
DUP	Duplicate
EPA	Environmental Protection Agency
HH	Human Health
ID	Identification
LOD	Limit of Detection
LOQ	Limit of Quantiation
mg/kg	milligrams per kilogram
NMED	New Mexico Environment Department
NS	No Standard
RCRA	Resource Conservation and Recovery Act
RSL	Regional Screening Level
SSL	Soil Screening Level
SWMU	Soil Waste Management Unit

Lab Qualifier Codes:

Organics

J	Indicates that the analyte is positively identified and the result is less than the LOQ but greater than the DL.
U	Not detected at the LOD

Validation Qualifier Codes:

J	The analyte was positively identified; the associated numerical value is the approximate concentration
U	Not detected at or above the LOD.

Sample ID nomenclature:

Sample ID's consist of a combination of Parcel, AOC, additional site identifier, purpose of sample, increment number, sample depth, sample type, and matrix.

Example: 0608B537AEC-0.0-0.5D-SO
Parcel: 06
SWMU: 08

Additional Site Identifier: B537 (in this case it's Building 537)
Source of Sample: A (in this case it's Building 537 Area A)
Purpose of Sample: EC (excavation confirmation)
Sample Depth: Depth of samples will be designated with a 4-digit number, the first 2 digits starting depth, second 2 digits bottom depth (in this case 0.0 to 0.5 feet)
Sample Type: D (Discrete)
Sample Matrix: SO (soil) (in this case soil)
DUP = Field Duplicate (when applicable)

Screening level exceedances indicated by red result and a yellow highlighted "YES".

1. Excavated - Sample location was excavated during the Permittee-Initiated Interim Measure.

+ Screening Level Sources:

NMED SSL and EPA RSL	The HH DC Value selected is the lowest NMED Direct Contact Screening Level (for residents, industrial/occupational workers, and construction workers) via NMED Risk Assessment Guidance for Site Investigations and Remediation, November 2022 Revised. If there is no NMED Direct Contact Screening Level, the lowest EPA Residential RSL is selected for a target excess cancer risk level of 1 x 10-5 or target noncancer hazard quotient of 1.0 (November 2024). The most recent screening levels published by NMED and USEPA at the time the risk evaluation is conducted will be used in the risk evaluation.

Table B.5-1 Parcel 6 SWMU 20: Sample Locations with Associated Sample Identifiers, Fort Wingate Depot Activity, Gallup, NM.

Sample ID	Northing (UTM)	Easting (UTM)	Date	Time
0620WLAND-SB01	3932678.40	717839.42	6/15/2011	13:40
0620WLAND-SS-1M-SO	3932695.92	717825.67	5/12/2011	14:00
	3932667.90	717855.97	5/12/2011	14:00
	3932667.90	717825.45	5/12/2011	14:00
	3932695.92	717856.05	5/12/2011	14:00

[0]Northing and Easting values determined through surveyence with topcom bay station model

Local ID (identifier) qualifiers:

SO- Soil Sample

SS-Surface Sample

BM- Multi Incremental 1 ft. bgs

AM- Multi Incremental <1 ft. bgs

SB- Soil Boring

Table B.5-2 Parcel 6 SWMU 20: Method 8260B Volatile Organic Compounds Soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0620WLAND-SB01-0405D-SO	280-17036-13	6/15/2011	4-5	Acetone	67-64-1	0.0044	J	0.014	0.0038	mg/kg	66300	NMED SSL	

Notes:

CAS	Chemical Abstracts Service
DC	Direct Contact
DL	Detection Limit
DUP	Duplicate
EPA	Environmental Protection Agency
HH	Human Health
ID	Identification
LOD	Limit of Detection
LOQ	Limit of Quantiation
mg/kg	milligrams per kilogram
NMED	New Mexico Environment Department
NS	No Standard
RCRA	Resource Conservation and Recovery Act
RSL	Regional Screening Level
SSL	Soil Screening Level
SWMU	Soil Waste Management Unit

Lab Qualifier Codes:

Organics

J	Indicates that the analyte is positively identified and the result is less than the LOQ but greater than the DL.
U	Not detected at the LOD

Validation Qualifier Codes:

J	The analyte was positively identified; the associated numerical value is the approximate concentration
U	Not detected at or above the LOD.

Sample ID nomenclature:

Sample ID's consist of a combination of Parcel, AOC, additional site identifier, purpose of sample, increment number, sample depth, sample type, and matrix.

Example: 0608B537AEC-0.0-0.5D-SO
Parcel: 06
SWMU: 08

Additional Site Identifier: B537 (in this case it's Building 537)
Source of Sample: A (in this case it's Building 537 Area A)
Purpose of Sample: EC (excavation confirmation)
Sample Depth: Depth of samples will be designated with a 4-digit number, the first 2 digits starting depth, second 2 digits bottom depth (in this case 0.0 to 0.5 feet)
Sample Type: D (Discrete)
Sample Matrix: SO (soil) (in this case soil)
DUP = Field Duplicate (when applicable)

Screening level exceedances indicated by red result and a yellow highlighted "YES".

1. Excavated - Sample location was excavated during the Permittee-Initiated Interim Measure.

+ Scree ing Level Sources:

NMED SSL and EPA RSL	The HH DC Value selected is the lowest NMED Direct Contact Screening Level (for residents, industrial/occupational workers, and construction workers) via NMED Risk Assessment Guidance for Site Investigations and Remediation, November 2022 Revised. If there is no NMED Direct Contact Screening Level, the lowest EPA Residential RSL is selected for a target excess cancer risk level of 1 x 10-5 or target noncancer hazard quotient of 1.0 (November 2024). The most recent screening levels published by NMED and USEPA at the time the risk evaluation is conducted will be used in the risk evaluation.

Table B.5-3 Parcel 6 SWMU 20: Method 6010B/7471A Metals Soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0620WLAND-SB01-0001D-SO	280-17036-11	6/15/2011	0-1	Arsenic	7440-38-2	2.6		2.2	0.59	mg/Kg	7.07	NMED SSL	
0620WLAND-SB01-0001D-SO	280-17036-11	6/15/2011	0-1	Barium	7440-39-3	200		1.8	0.068	mg/Kg	4390	NMED SSL	
0620WLAND-SB01-0001D-SO	280-17036-11	6/15/2011	0-1	Cadmium	7440-43-9	0.11	J	0.45	0.037	mg/Kg	70.5	NMED SSL	
0620WLAND-SB01-0001D-SO	280-17036-11	6/15/2011	0-1	Chromium	7440-47-3	7.5		3.1	0.052	mg/Kg	96.6	NMED SSL	
0620WLAND-SB01-0001D-SO	280-17036-11	6/15/2011	0-1	Lead	7439-92-1	9.8		0.8	0.24	mg/Kg	200	EPA RSL	
0620WLAND-SB01-0405D-SO	280-17036-13	6/15/2011	4-5	Arsenic	7440-38-2	2.4	J	2.7	0.7	mg/Kg	7.07	NMED SSL	
0620WLAND-SB01-0405D-SO	280-17036-13	6/15/2011	4-5	Barium	7440-39-3	190		2.1	0.081	mg/Kg	4390	NMED SSL	
0620WLAND-SB01-0405D-SO	280-17036-13	6/15/2011	4-5	Cadmium	7440-43-9	0.069	J	0.53	0.043	mg/Kg	70.5	NMED SSL	
0620WLAND-SB01-0405D-SO	280-17036-13	6/15/2011	4-5	Chromium	7440-47-3	7.3		3.7	0.061	mg/Kg	96.6	NMED SSL	
0620WLAND-SB01-0405D-SO	280-17036-13	6/15/2011	4-5	Lead	7439-92-1	7		0.95	0.29	mg/Kg	200	EPA RSL	
0620WLAND-SB01-0405D-SO	280-17036-13	6/15/2011	4-5	Mercury	7439-97-6	0.0061	J	0.016	0.0051	mg/kg	20.7	NMED SSL	
0620WLAND-SS-1M-SO	280-15818-24	5/12/2011	0-0.25	Arsenic	7440-38-2	3.4	J	2.5	0.65	mg/Kg	7.07	NMED SSL	
0620WLAND-SS-1M-SO	280-15818-24	5/12/2011	0-0.25	Barium	7440-39-3	160	J	2	0.075	mg/Kg	4390	NMED SSL	
0620WLAND-SS-1M-SO	280-15818-24	5/12/2011	0-0.25	Cadmium	7440-43-9	0.14	J	0.49	0.04	mg/Kg	70.5	NMED SSL	
0620WLAND-SS-1M-SO	280-15818-24	5/12/2011	0-0.25	Chromium	7440-47-3	6.3		3.4	0.057	mg/Kg	96.6	NMED SSL	
0620WLAND-SS-1M-SO	280-15818-24	5/12/2011	0-0.25	Lead	7439-92-1	15	J	0.89	0.27	mg/Kg	200	EPA RSL	
0620WLAND-SS-1M-SO	280-15818-24	5/12/2011	0-0.25	Mercury	7439-97-6	0.031	J	0.033	0.0055	mg/kg	20.7	NMED SSL	

Notes:

CAS	Chemical Abstracts Service
DC	Direct Contact
DL	Detection Limit
DUP	Duplicate
EPA	Environmental Protection Agency
HH	Human Health
ID	Identification
LOD	Limit of Detection
LOQ	Limit of Quantiation
mg/kg	milligrams per kilogram
NMED	New Mexico Environment Department
NS	No Standard
RCRA	Resource Conservation and Recovery Act
RSL	Regional Screening Level
SSL	Soil Screening Level
SWMU	Soil Waste Management Unit

Lab Qualifier Codes:

Organics

J	Indicates that the analyte is positively identified and the result is less than the LOQ but greater than the DL.
U	Not detected at the LOD

Validation Qualifier Codes:

J	The analyte was positively identified; the associated numerical value is the approximate concentration
U	Not detected at or above the LOD.

Sample ID nomenclature:

Sample ID's consist of a combination of Parcel, AOC, additional site identifier, purpose of sample, increment number, sample depth, sample type, and matrix.

Example: 0608B537AEC-0.0-0.5D-SO
Parcel: 06
SWMU: 08

Additional Site Identifier: B537 (in this case it's Building 537)
Source of Sample: A (in this case it's Building 537 Area A)
Purpose of Sample: EC (excavation confirmation)
Sample Depth: Depth of samples will be designated with a 4-digit number, the first 2 digits starting depth, second 2 digits bottom depth (in this case 0.0 to 0.5 feet)
Sample Type: D (Discrete)
Sample Matrix: SO (soil) (in this case soil)
DUP = Field Duplicate (when applicable)

Screening level exceedances indicated by red result and a yellow highlighted "YES".

1. Excavated - Sample location was excavated during the Permittee-Initiated Interim Measure.

+ Screening Level Sources:

NMED SSL and EPA RSL	The HH DC Value selected is the lowest NMED Direct Contact Screening Level (for residents, industrial/occupational workers, and construction workers) via NMED Risk Assessment Guidance for Site Investigations and Remediation, November 2022 Revised. If there is no NMED Direct Contact Screening Level, the lowest EPA Residential RSL is selected for a target excess cancer risk level of 1 x 10-5 or target noncancer hazard quotient of 1.0 (November 2024). The most recent screening levels published by NMED and USEPA at the time the risk evaluation is conducted will be used in the risk evaluation.

Table B.5-4 Parcel 6 SWMU 20: Method 8151A Herbicides Soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0620WLAND-SB01-0001D-SO	280-17036-11	6/15/2011	0-1	Dinoseb	88-85-7	0.017	J	0.012	0.0014	mg/kg	63	EPA RSL	

Notes:

CAS	Chemical Abstracts Service
DC	Direct Contact
DL	Detection Limit
DUP	Duplicate
EPA	Environmental Protection Agency
HH	Human Health
ID	Identification
LOD	Limit of Detection
LOQ	Limit of Quantiation
mg/kg	milligrams per kilogram
NMED	New Mexico Environment Department
NS	No Standard
RCRA	Resource Conservation and Recovery Act
RSL	Regional Screening Level
SSL	Soil Screening Level
SWMU	Soil Waste Management Unit

Lab Qualifier Codes:

Organics

J	Indicates that the analyte is positively identified and the result is less than the LOQ but greater than the DL.
U	Not detected at the LOD

Validation Qualifier Codes:

J	The analyte was positively identified; the associated numerical value is the approximate concentration
U	Not detected at or above the LOD.

Sample ID nomenclature:

Sample ID's consist of a combination of Parcel, AOC, additional site identifier, purpose of sample, increment number, sample depth, sample type, and matrix.

Example: 0608B537AEC-0.0-0.5D-SO
Parcel: 06
SWMU: 08

Additional Site Identifier: B537 (in this case it's Building 537)
Source of Sample: A (in this case it's Building 537 Area A)
Purpose of Sample: EC (excavation confirmation)
Sample Depth: Depth of samples will be designated with a 4-digit number, the first 2 digits starting depth, second 2 digits bottom depth (in this case 0.0 to 0.5 feet)
Sample Type: D (Discrete)
Sample Matrix: SO (soil) (in this case soil)
DUP = Field Duplicate (when applicable)

Screening level exceedances indicated by red result and a yellow highlighted "YES".

1. Excavated - Sample location was excavated during the Permittee-Initiated Interim Measure.

+ Scree ing Level Sources:

NMED SSL and EPA RSL	The HH DC Value selected is the lowest NMED Direct Contact Screening Level (for residents, industrial/occupational workers, and construction workers) via NMED Risk Assessment Guidance for Site Investigations and Remediation, November 2022 Revised. If there is no NMED Direct Contact Screening Level, the lowest EPA Residential RSL is selected for a target excess cancer risk level of 1 x 10-5 or target noncancer hazard quotient of 1.0 (November 2024). The most recent screening levels published by NMED and USEPA at the time the risk evaluation is conducted will be used in the risk evaluation.

Table B.5-5 Parcel 6 SWMU 20 (Feature 4) Excavation Confirmation Sampling Results (detections only), Method 8260C Volatile Organic Compounds

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0620F-4AEC01-0.0-0.5D-SO	B104-01I	2/9/2016	0-0.5	Acetone	67-64-1	0.7		0.29	0.036	mg/kg	66300	NMED SSL	
0620F4AEC-01D-SO	J151-01I	10/12/2017		Methylene Chloride	75-09-2	0.072	U	0.11	0.0570	mg/kg	409	NMED SSL	
0620F-4AEC02-0.0-0.5D-DUP	B104-02I	2/9/2016	0-0.5	1,2,4-Trimethylbenzene	95-63-6	0.026	J	0.081	0.022	mg/kg	300	EPA RSL	
0620F-4AEC02-0.0-0.5D-DUP	B104-02I	2/9/2016	0-0.5	Acetone	67-64-1	0.15	J	0.20	0.025	mg/kg	66300	NMED SSL	
0620F-4AEC02-0.0-0.5D-DUP	B104-02I	2/9/2016	0-0.5	o-Xylene	95-47-6	0.026	J	0.041	0.020	mg/kg	736	NMED SSL	
0620F-4AEC02-0.0-0.5D-DUP	B104-02I	2/9/2016	0-0.5	Toluene	108-88-3	0.031	J	0.041	0.020	mg/kg	5230	NMED SSL	
0620F-4AEC02-0.0-0.5D-SO	B104-03I	2/9/2016	0-0.5	Acetone	67-64-1	0.39		0.17	0.021	mg/kg	66300	NMED SSL	
0620F-4AEC02-0.0-0.5D-SO	B104-03I	2/9/2016	0-0.5	Toluene	108-88-3	0.026	J	0.034	0.017	mg/kg	5230	NMED SSL	
0620F4AEC-02D-SO	J151-02I	10/12/2017		Methylene Chloride	75-09-2	0.071	U	0.12	0.0600	mg/kg	409	NMED SSL	
0620F-4AEC03-0.0-0.5D-SO	B104-04I	2/9/2016	0-0.5	Acetone	67-64-1	0.17	J	0.24	0.030	mg/kg	66300	NMED SSL	
0620F4AEC-03D-SO	J151-03I	10/12/2017		Acetone	67-64-1	0.29	J	0.33	0.200	mg/kg	66300	NMED SSL	
0620F4AEC-03D-SO	J151-03I	10/12/2017		Methylene Chloride	75-09-2	0.072	U	0.13	0.0660	mg/kg	409	NMED SSL	
0620F-4AEC04-0.0-0.5D-SO	B104-05I	2/9/2016	0-0.5	Acetone	67-64-1	0.63		0.31	0.039	mg/kg	66300	NMED SSL	
0620F4AEC-04D-SO	J151-04I	10/12/2017		Acetone	67-64-1	0.23	J	0.31	0.190	mg/kg	66300	NMED SSL	
0620F4AEC-04D-SO	J151-04I	10/12/2017		Methylene Chloride	75-09-2	0.079	U	0.12	0.0620	mg/kg	409	NMED SSL	
0620F4AEC-04D-SO-DUP	J151-05I	10/12/2017		Acetone	67-64-1	0.19	J	0.3	0.180	mg/kg	66300	NMED SSL	
0620F4AEC-04D-SO-DUP	J151-05I	10/12/2017		Methylene Chloride	75-09-2	0.073	U	0.12	0.0590	mg/kg	409	NMED SSL	
0620F-4AEC05-0.0-0.5D-SO (Excavated)	B104-06I	2/9/2016	0-0.5	Toluene	108-88-3	0.038	J	0.044	0.022	mg/kg	5230	NMED SSL	
0620F4AEC-05D-SO	J151-06I	10/12/2017		Methylene Chloride	75-09-2	0.13	U	0.2	0.100	mg/kg	409	NMED SSL	
0620F4AEC-05D-SO	J151-06I	10/12/2017		Naphthalene	91-20-3	0.12	J	0.2	0.100	mg/kg	22.6	NMED SSL	
0620F4AEC-06D-SO	J151-07I	10/12/2017		Methylene Chloride	75-09-2	0.059	U	0.1	0.0520	mg/kg	409	NMED SSL	
0620F-4AEC07-0.0-0.5D-SO	B104-08I	2/9/2016	0-0.5	Acetone	67-64-1	0.32	J	0.18	0.022	mg/kg	66300	NMED SSL	
0620F4AEC-07D-SO	J151-08I	10/12/2017		Methylene Chloride	75-09-2	0.096	U	0.13	0.0660	mg/kg	409	NMED SSL	
0620F-4AEC08-0.0-0.5D-DUP (Excavated)	B104-09I	2/9/2016	0-0.5	Acetone	67-64-1	0.79	J	0.24	0.030	mg/kg	66300	NMED SSL	
0620F4AEC-08D-SO	J151-09I	10/12/2017		Methylene Chloride	75-09-2	0.063	U	0.1	0.0520	mg/kg	409	NMED SSL	
0620F-4AEC09-0.0-0.5D-SO	B104-11I	2/9/2016	0-0.5	Acetone	67-64-1	1	J	0.24	0.029	mg/kg	66300	NMED SSL	
0620F-4AEC09-0.0-0.5D-SO	B104-11I	2/9/2016	0-0.5	Toluene	108-88-3	0.026	J	0.047	0.024	mg/kg	5230	NMED SSL	
0620F4AEC-09D-SO	J151-10I	10/12/2017		Acetone	67-64-1	0.25	J	0.28	0.170	mg/kg	66300	NMED SSL	
0620F4AEC-09D-SO	J151-10I	10/12/2017		Methylene Chloride	75-09-2	0.065	U	0.11	0.0550	mg/kg	409	NMED SSL	

Table B.5-5 Parcel 6 SWMU 20 (Feature 4) Excavation Confirmation Sampling Results (detections only), Method 8260C Volatile Organic Compounds

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0620F4AEC10-0.0-0.5D-SO	J152-01I	10/12/2017	0-0.5	Methylene Chloride	75-09-2	0.054	U	0.093	0.0460	mg/kg	409	NMED SSL	
0620F4AEC-10D-SO	J151-11I	10/12/2017		Methylene Chloride	75-09-2	0.079	U	0.11	0.0570	mg/kg	409	NMED SSL	
0620F4AEC11-0.0-0.5D-SO	J152-02I	10/12/2017	0-0.5	Methylene Chloride	75-09-2	0.061	U	0.11	0.0530	mg/kg	409	NMED SSL	
0620F4AEC-11D-SO	J151-12I	10/12/2017		Methylene Chloride	75-09-2	0.11	U	0.17	0.0860	mg/kg	409	NMED SSL	
0620F4AEC12-0.0-0.5D-SO	J152-03I	10/12/2017	0-0.5	Methylene Chloride	75-09-2	0.067	U	0.12	0.0580	mg/kg	409	NMED SSL	
0620F4AEC12-0.0-0.5D-SO	J152-03I	10/12/2017	0-0.5	o-Xylene	95-47-6	0.029	J	0.058	0.0290	mg/kg	736	NMED SSL	
0620F4AEC-12D-SO	J151-13I	10/12/2017		Methylene Chloride	75-09-2	0.06	U	0.11	0.0550	mg/kg	409	NMED SSL	
0620F4AEC13-0.0-0.5D-SO	J152-04I	10/12/2017	0-0.5	Acetone	67-64-1	0.23	J	0.3	0.180	mg/kg	66300	NMED SSL	
0620F4AEC13-0.0-0.5D-SO	J152-04I	10/12/2017	0-0.5	Methylene Chloride	75-09-2	0.065	U	0.12	0.0590	mg/kg	409	NMED SSL	
0620F4AEC-13D-SO	J151-14N	10/12/2017		Methylene Chloride	75-09-2	0.063	U	0.12	0.0600	mg/kg	409	NMED SSL	
0620F4AEC14-0.0-0.5D-SO	J152-05I	10/12/2017	0-0.5	Methylene Chloride	75-09-2	0.063	U	0.11	0.0570	mg/kg	409	NMED SSL	
0620F4AEC-14D-SO	J151-15I	10/12/2017		Acetone	67-64-1	0.19	J	0.3	0.180	mg/kg	66300	NMED SSL	
0620F4AEC-14D-SO	J151-15I	10/12/2017		Methylene Chloride	75-09-2	0.066	U	0.12	0.0600	mg/kg	409	NMED SSL	
0620F4AEC-14D-SO-DUP	J151-16I	10/12/2017		Acetone	67-64-1	0.21	J	0.28	0.170	mg/kg	66300	NMED SSL	
0620F4AEC-14D-SO-DUP	J151-16I	10/12/2017		Methylene Chloride	75-09-2	0.069	U	0.11	0.0560	mg/kg	409	NMED SSL	
0620F4AEC15-0.0-0.5D-SO	J152-06I	10/12/2017	0-0.5	Methylene Chloride	75-09-2	0.087	U	0.16	0.0790	mg/kg	409	NMED SSL	
0620F4AEC15-0.0-0.5D-SO-DUP	J152-07I	10/12/2017	0-0.5	Acetone	67-64-1	0.27	J	0.37	0.230	mg/kg	66300	NMED SSL	
0620F4AEC15-0.0-0.5D-SO-DUP	J152-07I	10/12/2017	0-0.5	Methylene Chloride	75-09-2	0.085	U	0.15	0.0730	mg/kg	409	NMED SSL	

Notes:

CAS	Chemical Abstracts Service
DC	Direct Contact
DL	Detection Limit
DUP	Duplicate
EPA	Environmental Protection Agency
HH	Human Health
ID	Identification
LOD	Limit of Detection
LOQ	Limit of Quantiation
mg/kg	milligrams per kilogram
NMED	New Mexico Environment Department
NS	No Standard
RCRA	Resource Conservation and Recovery Act
RSL	Regional Screening Level
SSL	Soil Screening Level
SWMU	Soil Waste Management Unit

Lab Qualifier Codes:

Organics

J	Indicates that the analyte is positively identified and the result is less than the LOQ but greater than the DL.
U	Not detected at the LOD

Validation Qualifier Codes:

J	The analyte was positively identified; the associated numerical value is the approximate concentration
U	Not detected at or above the LOD.

Sample ID nomenclature:

Sample ID's consist of a combination of Parcel, AOC, additional site identifier, purpose of sample, increment number, sample depth, sample type, and matrix.

Example: 0608B537AEC-0.0-0.5D-SO
Parcel: 06
SWMU: 08

Additional Site Identifier: B537 (in this case it's Building 537)
Source of Sample: A (in this case it's Building 537 Area A)
Purpose of Sample: EC (excavation confirmation)
Sample Depth: Depth of samples will be designated with a 4-digit number, the first 2 digits starting depth, second 2 digits bottom depth (in this case 0.0 to 0.5 feet)
Sample Type: D (Discrete)
Sample Matrix: SO (soil) (in this case soil)
DUP = Field Duplicate (when applicable)

Screening level exceedances indicated by red result and a yellow highlighted "YES".

1. Excavated - Sample location was excavated during the Permittee-Initiated Interim Measure.

+ Screening Level Sources:

NMED SSL and EPA RSL	The HH DC Value selected is the lowest NMED Direct Contact Screening Level (for residents, industrial/occupational workers, and construction workers) via NMED Risk Assessment Guidance for Site Investigations and Remediation, November 2022 Revised. If there is no NMED Direct Contact Screening Level, the lowest EPA Residential RSL is selected for a target excess cancer risk level of 1 x 10-5 or target noncancer hazard quotient of 1.0 (November 2024). The most recent screening levels published by NMED and USEPA at the time the risk evaluation is conducted will be used in the risk evaluation.

Table B.5-6 Parcel 6 SWMU 20 (Feature 4) Excavation Confirmation Sampling Results (detections only), Method 8270 SIM Semi-Volatile Organic Compounds

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0620F-4AEC01-0.0-0.5D-SO	B104-01	2/9/2016	0-0.5	Benzo(a)anthracene	56-55-3	0.011	J	0.0031	0.0030	mg/kg	1.53	NMED SSL	
0620F-4AEC01-0.0-0.5D-SO	B104-01	2/9/2016	0-0.5	Benzo(a)pyrene	50-32-8	0.011	J	0.0031	0.0016	mg/kg	1.12	NMED SSL	
0620F-4AEC01-0.0-0.5D-SO	B104-01	2/9/2016	0-0.5	Benzo(b)fluoranthene	205-99-2	0.024		0.0031	0.0016	mg/kg	1.53	NMED SSL	
0620F-4AEC01-0.0-0.5D-SO	B104-01	2/9/2016	0-0.5	Benzo(k)fluoranthene	207-08-9	0.0063	J	0.0031	0.0016	mg/kg	15.3	NMED SSL	
0620F-4AEC01-0.0-0.5D-SO	B104-01	2/9/2016	0-0.5	Chrysene	218-01-9	0.011	J	0.0031	0.0027	mg/kg	153	NMED SSL	
0620F-4AEC01-0.0-0.5D-SO	B104-01	2/9/2016	0-0.5	Fluoranthene	206-44-0	0.01	J	0.0031	0.0016	mg/kg	2320	NMED SSL	
0620F-4AEC01-0.0-0.5D-SO	B104-01	2/9/2016	0-0.5	Indeno(1,2,3-cd)pyrene	193-39-5	0.0093	J	0.0031	0.0016	mg/kg	1.53	NMED SSL	
0620F-4AEC01-0.0-0.5D-SO	B104-01	2/9/2016	0-0.5	Phenanthrene	85-01-8	0.0028	J	0.0031	0.0016	mg/kg	1850	NMED SSL	
0620F-4AEC01-0.0-0.5D-SO	B104-01	2/9/2016	0-0.5	Pyrene	129-00-0	0.01	J	0.0031	0.0016	mg/kg	1740	NMED SSL	
0620F4AEC-01D-SO	J151-01	10/12/2017		Benzo(a)anthracene	56-55-3	0.03		0.0056	0.00550	mg/kg	1.53	NMED SSL	
0620F4AEC-01D-SO	J151-01	10/12/2017		Benzo(a)pyrene	50-32-8	0.028		0.0056	0.00280	mg/kg	1.12	NMED SSL	
0620F4AEC-01D-SO	J151-01	10/12/2017		Benzo(b)fluoranthene	205-99-2	0.054		0.0056	0.00280	mg/kg	1.53	NMED SSL	
0620F4AEC-01D-SO	J151-01	10/12/2017		Benzo(k)fluoranthene	207-08-9	0.011	J	0.0056	0.00280	mg/kg	15.3	NMED SSL	
0620F4AEC-01D-SO	J151-01	10/12/2017		Chrysene	218-01-9	0.03		0.0056	0.00490	mg/kg	153	NMED SSL	
0620F4AEC-01D-SO	J151-01	10/12/2017		Dibenz(a,h)anthracene	53-70-3	0.0099	J	0.0056	0.00280	mg/kg	0.153	NMED SSL	
0620F4AEC-01D-SO	J151-01	10/12/2017		Fluoranthene	206-44-0	0.027		0.0056	0.00280	mg/kg	2320	NMED SSL	
0620F4AEC-01D-SO	J151-01	10/12/2017		Indeno(1,2,3-cd)pyrene	193-39-5	0.019	J	0.0056	0.00280	mg/kg	1.53	NMED SSL	
0620F4AEC-01D-SO	J151-01	10/12/2017		Phenanthrene	85-01-8	0.005	J	0.0056	0.00280	mg/kg	1850	NMED SSL	
0620F4AEC-01D-SO	J151-01	10/12/2017		Pyrene	129-00-0	0.028		0.0056	0.00280	mg/kg	1740	NMED SSL	
0620F-4AEC02-0.0-0.5D-DUP	B104-02	2/9/2016	0-0.5	Anthracene	120-12-7	0.006	J	0.0080	0.0040	mg/kg	17400	NMED SSL	
0620F-4AEC02-0.0-0.5D-DUP	B104-02	2/9/2016	0-0.5	Benzo(a)anthracene	56-55-3	0.1		0.0080	0.0079	mg/kg	1.53	NMED SSL	
0620F-4AEC02-0.0-0.5D-DUP	B104-02	2/9/2016	0-0.5	Benzo(a)pyrene	50-32-8	0.11		0.0080	0.0040	mg/kg	1.12	NMED SSL	
0620F-4AEC02-0.0-0.5D-DUP	B104-02	2/9/2016	0-0.5	Benzo(b)fluoranthene	205-99-2	0.17		0.0080	0.0040	mg/kg	1.53	NMED SSL	
0620F-4AEC02-0.0-0.5D-DUP	B104-02	2/9/2016	0-0.5	Benzo(k)fluoranthene	207-08-9	0.042		0.0080	0.0040	mg/kg	15.3	NMED SSL	
0620F-4AEC02-0.0-0.5D-DUP	B104-02	2/9/2016	0-0.5	Chrysene	218-01-9	0.12		0.0080	0.0071	mg/kg	153	NMED SSL	
0620F-4AEC02-0.0-0.5D-DUP	B104-02	2/9/2016	0-0.5	Dibenz(a,h)anthracene	53-70-3	0.019	J	0.0080	0.0040	mg/kg	0.153	NMED SSL	
0620F-4AEC02-0.0-0.5D-DUP	B104-02	2/9/2016	0-0.5	Fluoranthene	206-44-0	0.12		0.0080	0.0040	mg/kg	2320	NMED SSL	
0620F-4AEC02-0.0-0.5D-DUP	B104-02	2/9/2016	0-0.5	Indeno(1,2,3-cd)pyrene	193-39-5	0.069		0.0080	0.0040	mg/kg	1.53	NMED SSL	
0620F-4AEC02-0.0-0.5D-DUP	B104-02	2/9/2016	0-0.5	Naphthalene	91-20-3	0.013	J	0.0080	0.0040	mg/kg	22.6	NMED SSL	

Table B.5-6 Parcel 6 SWMU 20 (Feature 4) Excavation Confirmation Sampling Results (detections only), Method 8270 SIM Semi-Volatile Organic Compounds

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0620F-4AEC02-0.0-0.5D-DUP	B104-02	2/9/2016	0-0.5	Phenanthrene	85-01-8	0.018	J	0.0080	0.0040	mg/kg	1850	NMED SSL	
0620F-4AEC02-0.0-0.5D-DUP	B104-02	2/9/2016	0-0.5	Pyrene	129-00-0	0.13		0.0080	0.0040	mg/kg	1740	NMED SSL	
0620F-4AEC02-0.0-0.5D-SO	B104-03	2/9/2016	0-0.5	Anthracene	120-12-7	0.0078	J	0.0080	0.0040	mg/kg	17400	NMED SSL	
0620F-4AEC02-0.0-0.5D-SO	B104-03	2/9/2016	0-0.5	Benzo(a)anthracene	56-55-3	0.075		0.0080	0.0079	mg/kg	1.53	NMED SSL	
0620F-4AEC02-0.0-0.5D-SO	B104-03	2/9/2016	0-0.5	Benzo(a)pyrene	50-32-8	0.076		0.0080	0.0040	mg/kg	1.12	NMED SSL	
0620F-4AEC02-0.0-0.5D-SO	B104-03	2/9/2016	0-0.5	Benzo(b)fluoranthene	205-99-2	0.11		0.0080	0.0040	mg/kg	1.53	NMED SSL	
0620F-4AEC02-0.0-0.5D-SO	B104-03	2/9/2016	0-0.5	Benzo(k)fluoranthene	207-08-9	0.033		0.0080	0.0040	mg/kg	15.3	NMED SSL	
0620F-4AEC02-0.0-0.5D-SO	B104-03	2/9/2016	0-0.5	Chrysene	218-01-9	0.079		0.0080	0.0071	mg/kg	153	NMED SSL	
0620F-4AEC02-0.0-0.5D-SO	B104-03	2/9/2016	0-0.5	Fluoranthene	206-44-0	0.1		0.0080	0.0040	mg/kg	2320	NMED SSL	
0620F-4AEC02-0.0-0.5D-SO	B104-03	2/9/2016	0-0.5	Indeno(1,2,3-cd)pyrene	193-39-5	0.046		0.0080	0.0040	mg/kg	1.53	NMED SSL	
0620F-4AEC02-0.0-0.5D-SO	B104-03	2/9/2016	0-0.5	Naphthalene	91-20-3	0.014	J	0.0080	0.0040	mg/kg	22.6	NMED SSL	
0620F-4AEC02-0.0-0.5D-SO	B104-03	2/9/2016	0-0.5	Phenanthrene	85-01-8	0.026	J	0.0080	0.0040	mg/kg	1850	NMED SSL	
0620F-4AEC02-0.0-0.5D-SO	B104-03	2/9/2016	0-0.5	Pyrene	129-00-0	0.093		0.0080	0.0040	mg/kg	1740	NMED SSL	
0620F4AEC-02D-SO	J151-02	10/12/2017		Benzo(a)anthracene	56-55-3	0.0045	J	0.0030	0.00290	mg/kg	1.53	NMED SSL	
0620F4AEC-02D-SO	J151-02	10/12/2017		Benzo(a)pyrene	50-32-8	0.006	J	0.0030	0.00150	mg/kg	1.12	NMED SSL	
0620F4AEC-02D-SO	J151-02	10/12/2017		Benzo(b)fluoranthene	205-99-2	0.0086	J	0.0030	0.00150	mg/kg	1.53	NMED SSL	
0620F4AEC-02D-SO	J151-02	10/12/2017		Benzo(k)fluoranthene	207-08-9	0.0016	J	0.0030	0.00150	mg/kg	15.3	NMED SSL	
0620F4AEC-02D-SO	J151-02	10/12/2017		Chrysene	218-01-9	0.004	J	0.0030	0.00260	mg/kg	153	NMED SSL	
0620F4AEC-02D-SO	J151-02	10/12/2017		Fluoranthene	206-44-0	0.0044	J	0.0030	0.00150	mg/kg	2320	NMED SSL	
0620F4AEC-02D-SO	J151-02	10/12/2017		Indeno(1,2,3-cd)pyrene	193-39-5	0.0031	J	0.0030	0.00150	mg/kg	1.53	NMED SSL	
0620F4AEC-02D-SO	J151-02	10/12/2017		Pyrene	129-00-0	0.005	J	0.0030	0.00150	mg/kg	1740	NMED SSL	
0620F-4AEC03-0.0-0.5D-SO	B104-04	2/9/2016	0-0.5	Acenaphthene	83-32-9	0.0023	J	0.0030	0.0015	mg/kg	3480	NMED SSL	
0620F-4AEC03-0.0-0.5D-SO	B104-04	2/9/2016	0-0.5	Anthracene	120-12-7	0.0088	J	0.0030	0.0015	mg/kg	17400	NMED SSL	
0620F-4AEC03-0.0-0.5D-SO	B104-04	2/9/2016	0-0.5	Benzo(a)anthracene	56-55-3	0.057		0.0030	0.0029	mg/kg	1.53	NMED SSL	
0620F-4AEC03-0.0-0.5D-SO	B104-04	2/9/2016	0-0.5	Benzo(a)pyrene	50-32-8	0.071		0.0030	0.0015	mg/kg	1.12	NMED SSL	
0620F-4AEC03-0.0-0.5D-SO	B104-04	2/9/2016	0-0.5	Benzo(b)fluoranthene	205-99-2	0.1		0.0030	0.0015	mg/kg	1.53	NMED SSL	
0620F-4AEC03-0.0-0.5D-SO	B104-04	2/9/2016	0-0.5	Benzo(k)fluoranthene	207-08-9	0.034		0.0030	0.0015	mg/kg	15.3	NMED SSL	
0620F-4AEC03-0.0-0.5D-SO	B104-04	2/9/2016	0-0.5	Chrysene	218-01-9	0.063		0.0030	0.0026	mg/kg	153	NMED SSL	
0620F-4AEC03-0.0-0.5D-SO	B104-04	2/9/2016	0-0.5	Dibenz(a,h)anthracene	53-70-3	0.011	J	0.0030	0.0015	mg/kg	0.153	NMED SSL	

Table B.5-6 Parcel 6 SWMU 20 (Feature 4) Excavation Confirmation Sampling Results (detections only), Method 8270 SIM Semi-Volatile Organic Compounds

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0620F-4AEC03-0.0-0.5D-SO	B104-04	2/9/2016	0-0.5	Fluoranthene	206-44-0	0.094		0.0030	0.0015	mg/kg	2320	NMED SSL	
0620F-4AEC03-0.0-0.5D-SO	B104-04	2/9/2016	0-0.5	Fluorene	86-73-7	0.0025	J	0.0030	0.0015	mg/kg	2320	NMED SSL	
0620F-4AEC03-0.0-0.5D-SO	B104-04	2/9/2016	0-0.5	Indeno(1,2,3-cd)pyrene	193-39-5	0.052		0.0030	0.0015	mg/kg	1.53	NMED SSL	
0620F-4AEC03-0.0-0.5D-SO	B104-04	2/9/2016	0-0.5	Naphthalene	91-20-3	0.0034	J	0.0030	0.0015	mg/kg	22.6	NMED SSL	
0620F-4AEC03-0.0-0.5D-SO	B104-04	2/9/2016	0-0.5	Phenanthrene	85-01-8	0.026		0.0030	0.0015	mg/kg	1850	NMED SSL	
0620F-4AEC03-0.0-0.5D-SO	B104-04	2/9/2016	0-0.5	Pyrene	129-00-0	0.085		0.0030	0.0015	mg/kg	1740	NMED SSL	
0620F4AEC-03D-SO	J151-03	10/12/2017		Benzo(a)anthracene	56-55-3	0.0044	J	0.0030	0.00290	mg/kg	1.53	NMED SSL	
0620F4AEC-03D-SO	J151-03	10/12/2017		Benzo(a)pyrene	50-32-8	0.006	J	0.0030	0.00150	mg/kg	1.12	NMED SSL	
0620F4AEC-03D-SO	J151-03	10/12/2017		Benzo(b)fluoranthene	205-99-2	0.0093	J	0.0030	0.00150	mg/kg	1.53	NMED SSL	
0620F4AEC-03D-SO	J151-03	10/12/2017		Benzo(k)fluoranthene	207-08-9	0.0022	J	0.0030	0.00150	mg/kg	15.3	NMED SSL	
0620F4AEC-03D-SO	J151-03	10/12/2017		Chrysene	218-01-9	0.0042	J	0.0030	0.00260	mg/kg	153	NMED SSL	
0620F4AEC-03D-SO	J151-03	10/12/2017		Fluoranthene	206-44-0	0.0046	J	0.0030	0.00150	mg/kg	2320	NMED SSL	
0620F4AEC-03D-SO	J151-03	10/12/2017		Indeno(1,2,3-cd)pyrene	193-39-5	0.0051	J	0.0030	0.00150	mg/kg	1.53	NMED SSL	
0620F4AEC-03D-SO	J151-03	10/12/2017		Phenanthrene	85-01-8	0.0024	J	0.0030	0.00150	mg/kg	1850	NMED SSL	
0620F4AEC-03D-SO	J151-03	10/12/2017		Pyrene	129-00-0	0.0048	J	0.0030	0.00150	mg/kg	1740	NMED SSL	
0620F-4AEC04-0.0-0.5D-SO	B104-05	2/9/2016	0-0.5	Benzo(a)anthracene	56-55-3	0.0044	J	0.0030	0.0029	mg/kg	1.53	NMED SSL	
0620F-4AEC04-0.0-0.5D-SO	B104-05	2/9/2016	0-0.5	Benzo(a)pyrene	50-32-8	0.0041	J	0.0030	0.0015	mg/kg	1.12	NMED SSL	
0620F-4AEC04-0.0-0.5D-SO	B104-05	2/9/2016	0-0.5	Benzo(b)fluoranthene	205-99-2	0.0079	J	0.0030	0.0015	mg/kg	1.53	NMED SSL	
0620F-4AEC04-0.0-0.5D-SO	B104-05	2/9/2016	0-0.5	Chrysene	218-01-9	0.0038	J	0.0030	0.0026	mg/kg	153	NMED SSL	
0620F-4AEC04-0.0-0.5D-SO	B104-05	2/9/2016	0-0.5	Fluoranthene	206-44-0	0.0068	J	0.0030	0.0015	mg/kg	2320	NMED SSL	
0620F-4AEC04-0.0-0.5D-SO	B104-05	2/9/2016	0-0.5	Indeno(1,2,3-cd)pyrene	193-39-5	0.0033	J	0.0030	0.0015	mg/kg	1.53	NMED SSL	
0620F-4AEC04-0.0-0.5D-SO	B104-05	2/9/2016	0-0.5	Phenanthrene	85-01-8	0.0033	J	0.0030	0.0015	mg/kg	1850	NMED SSL	
0620F-4AEC04-0.0-0.5D-SO	B104-05	2/9/2016	0-0.5	Pyrene	129-00-0	0.0056	J	0.0030	0.0015	mg/kg	1740	NMED SSL	
0620F4AEC-04D-SO	J151-04	10/12/2017		Benzo(a)anthracene	56-55-3	0.0039	J	0.0031	0.00300	mg/kg	1.53	NMED SSL	
0620F4AEC-04D-SO	J151-04	10/12/2017		Benzo(a)pyrene	50-32-8	0.0054	J	0.0031	0.00150	mg/kg	1.12	NMED SSL	
0620F4AEC-04D-SO	J151-04	10/12/2017		Benzo(b)fluoranthene	205-99-2	0.0066	J	0.0031	0.00150	mg/kg	1.53	NMED SSL	
0620F4AEC-04D-SO	J151-04	10/12/2017		Fluoranthene	206-44-0	0.0043	J	0.0031	0.00150	mg/kg	2320	NMED SSL	
0620F4AEC-04D-SO	J151-04	10/12/2017		Indeno(1,2,3-cd)pyrene	193-39-5	0.0024	J	0.0031	0.00150	mg/kg	1.53	NMED SSL	
0620F4AEC-04D-SO	J151-04	10/12/2017		Phenanthrene	85-01-8	0.0026	J	0.0031	0.00150	mg/kg	1850	NMED SSL	

Table B.5-6 Parcel 6 SWMU 20 (Feature 4) Excavation Confirmation Sampling Results (detections only), Method 8270 SIM Semi-Volatile Organic Compounds

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0620F4AEC-04D-SO	J151-04	10/12/2017		Pyrene	129-00-0	0.004	J	0.0031	0.00150	mg/kg	1740	NMED SSL	
0620F4AEC-04D-SO-DUP	J151-05	10/12/2017		Benzo(a)anthracene	56-55-3	0.0035	J	0.0030	0.00300	mg/kg	1.53	NMED SSL	
0620F4AEC-04D-SO-DUP	J151-05	10/12/2017		Benzo(a)pyrene	50-32-8	0.0054	J	0.0030	0.00150	mg/kg	1.12	NMED SSL	
0620F4AEC-04D-SO-DUP	J151-05	10/12/2017		Benzo(b)fluoranthene	205-99-2	0.007	J	0.0030	0.00150	mg/kg	1.53	NMED SSL	
0620F4AEC-04D-SO-DUP	J151-05	10/12/2017		Fluoranthene	206-44-0	0.0037	J	0.0030	0.00150	mg/kg	2320	NMED SSL	
0620F4AEC-04D-SO-DUP	J151-05	10/12/2017		Indeno(1,2,3-cd)pyrene	193-39-5	0.0038	J	0.0030	0.00150	mg/kg	1.53	NMED SSL	
0620F4AEC-04D-SO-DUP	J151-05	10/12/2017		Phenanthrene	85-01-8	0.0016	J	0.0030	0.00150	mg/kg	1850	NMED SSL	
0620F4AEC-04D-SO-DUP	J151-05	10/12/2017		Pyrene	129-00-0	0.0035	J	0.0030	0.00150	mg/kg	1740	NMED SSL	
0620F-4AEC05-0.0-0.5D-SO (Excavated)	B104-06	2/9/2016	0-0.5	Anthracene	120-12-7	0.02	J	0.0082	0.0041	mg/kg	17400	NMED SSL	
0620F-4AEC05-0.0-0.5D-SO (Excavated)	B104-06	2/9/2016	0-0.5	Benzo(a)anthracene	56-55-3	0.35		0.0082	0.0080	mg/kg	1.53	NMED SSL	
0620F-4AEC05-0.0-0.5D-SO (Excavated)	B104-06	2/9/2016	0-0.5	Benzo(a)pyrene	50-32-8	0.39		0.0082	0.0041	mg/kg	1.12	NMED SSL	
0620F-4AEC05-0.0-0.5D-SO (Excavated)	B104-06	2/9/2016	0-0.5	Benzo(b)fluoranthene	205-99-2	0.57		0.0082	0.0041	mg/kg	1.53	NMED SSL	
0620F-4AEC05-0.0-0.5D-SO (Excavated)	B104-06	2/9/2016	0-0.5	Benzo(k)fluoranthene	207-08-9	0.13		0.0082	0.0041	mg/kg	15.3	NMED SSL	
0620F-4AEC05-0.0-0.5D-SO (Excavated)	B104-06	2/9/2016	0-0.5	Chrysene	218-01-9	0.33		0.0082	0.0072	mg/kg	153	NMED SSL	
0620F-4AEC05-0.0-0.5D-SO (Excavated)	B104-06	2/9/2016	0-0.5	Dibenz(a,h)anthracene	53-70-3	0.052		0.0082	0.0041	mg/kg	0.153	NMED SSL	
0620F-4AEC05-0.0-0.5D-SO (Excavated)	B104-06	2/9/2016	0-0.5	Fluoranthene	206-44-0	0.51		0.0082	0.0041	mg/kg	2320	NMED SSL	
0620F-4AEC05-0.0-0.5D-SO (Excavated)	B104-06	2/9/2016	0-0.5	Indeno(1,2,3-cd)pyrene	193-39-5	0.2		0.0082	0.0041	mg/kg	1.53	NMED SSL	
0620F-4AEC05-0.0-0.5D-SO (Excavated)	B104-06	2/9/2016	0-0.5	Naphthalene	91-20-3	0.03	J	0.0082	0.0041	mg/kg	22.6	NMED SSL	
0620F-4AEC05-0.0-0.5D-SO (Excavated)	B104-06	2/9/2016	0-0.5	Phenanthrene	85-01-8	0.052		0.0082	0.0041	mg/kg	1850	NMED SSL	
0620F-4AEC05-0.0-0.5D-SO (Excavated)	B104-06	2/9/2016	0-0.5	Pyrene	129-00-0	0.52		0.0082	0.0041	mg/kg	1740	NMED SSL	
0620F-4AEC05-1.0-1.5D-SO	C049-02	3/7/2016	1-1.5	Acenaphthene	83-32-9	0.0024	J	0.0026	0.0013	mg/kg	3480	NMED SSL	
0620F-4AEC05-1.0-1.5D-SO	C049-02	3/7/2016	1-1.5	Anthracene	120-12-7	0.003	J	0.0026	0.0013	mg/kg	17400	NMED SSL	
0620F-4AEC05-1.0-1.5D-SO	C049-02	3/7/2016	1-1.5	Benzo(a)anthracene	56-55-3	0.0028	J	0.0026	0.0025	mg/kg	1.53	NMED SSL	
0620F-4AEC05-1.0-1.5D-SO	C049-02	3/7/2016	1-1.5	Benzo(a)pyrene	50-32-8	0.0026	J	0.0026	0.0013	mg/kg	1.12	NMED SSL	
0620F-4AEC05-1.0-1.5D-SO	C049-02	3/7/2016	1-1.5	Benzo(b)fluoranthene	205-99-2	0.0033	J	0.0026	0.0013	mg/kg	1.53	NMED SSL	
0620F-4AEC05-1.0-1.5D-SO	C049-02	3/7/2016	1-1.5	Benzo(k)fluoranthene	207-08-9	0.0035	J	0.0026	0.0013	mg/kg	15.3	NMED SSL	
0620F-4AEC05-1.0-1.5D-SO	C049-02	3/7/2016	1-1.5	Chrysene	218-01-9	0.0036	J	0.0026	0.0023	mg/kg	153	NMED SSL	
0620F-4AEC05-1.0-1.5D-SO	C049-02	3/7/2016	1-1.5	Dibenz(a,h)anthracene	53-70-3	0.003	J	0.0026	0.0013	mg/kg	0.153	NMED SSL	
0620F-4AEC05-1.0-1.5D-SO	C049-02	3/7/2016	1-1.5	Fluoranthene	206-44-0	0.0038	J	0.0026	0.0013	mg/kg	2320	NMED SSL	

Table B.5-6 Parcel 6 SWMU 20 (Feature 4) Excavation Confirmation Sampling Results (detections only), Method 8270 SIM Semi-Volatile Organic Compounds

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0620F-4AEC05-1.0-1.5D-SO	C049-02	3/7/2016	1-1.5	Fluorene	86-73-7	0.0026	J	0.0026	0.0013	mg/kg	2320	NMED SSL	
0620F-4AEC05-1.0-1.5D-SO	C049-02	3/7/2016	1-1.5	Indeno(1,2,3-cd)pyrene	193-39-5	0.0029	J	0.0026	0.0013	mg/kg	1.53	NMED SSL	
0620F-4AEC05-1.0-1.5D-SO	C049-02	3/7/2016	1-1.5	Phenanthrene	85-01-8	0.0028	J	0.0026	0.0013	mg/kg	1850	NMED SSL	
0620F-4AEC05-1.0-1.5D-SO	C049-02	3/7/2016	1-1.5	Pyrene	129-00-0	0.0043	J	0.0026	0.0013	mg/kg	1740	NMED SSL	
0620F4AEC-05D-SO	J151-06	10/12/2017		Acenaphthene	83-32-9	0.027	J	0.013	0.00640	mg/kg	3480	NMED SSL	
0620F4AEC-05D-SO	J151-06	10/12/2017		Anthracene	120-12-7	0.82		0.013	0.00640	mg/kg	17400	NMED SSL	
0620F4AEC-05D-SO	J151-06	10/12/2017		Benzo(a)anthracene	56-55-3	5.7		0.013	0.0130	mg/kg	1.53	NMED SSL	YES
0620F4AEC-05D-SO	J151-06	10/12/2017		Benzo(a)pyrene	50-32-8	3.9		0.013	0.00640	mg/kg	1.12	NMED SSL	YES
0620F4AEC-05D-SO	J151-06	10/12/2017		Benzo(b)fluoranthene	205-99-2	12		0.013	0.00640	mg/kg	1.53	NMED SSL	YES
0620F4AEC-05D-SO	J151-06	10/12/2017		Benzo(k)fluoranthene	207-08-9	2.8		0.013	0.00640	mg/kg	15.3	NMED SSL	
0620F4AEC-05D-SO	J151-06	10/12/2017		Chrysene	218-01-9	7.3		0.013	0.0110	mg/kg	153	NMED SSL	
0620F4AEC-05D-SO	J151-06	10/12/2017		Dibenz(a,h)anthracene	53-70-3	0.94		0.013	0.00640	mg/kg	0.153	NMED SSL	YES
0620F4AEC-05D-SO	J151-06	10/12/2017		Fluoranthene	206-44-0	8.3		0.013	0.00640	mg/kg	2320	NMED SSL	
0620F4AEC-05D-SO	J151-06	10/12/2017		Fluorene	86-73-7	0.068		0.013	0.00640	mg/kg	2320	NMED SSL	
0620F4AEC-05D-SO	J151-06	10/12/2017		Indeno(1,2,3-cd)pyrene	193-39-5	4.4		0.013	0.00640	mg/kg	1.53	NMED SSL	YES
0620F4AEC-05D-SO	J151-06	10/12/2017		Naphthalene	91-20-3	0.034	J	0.013	0.00640	mg/kg	22.6	NMED SSL	
0620F4AEC-05D-SO	J151-06	10/12/2017		Phenanthrene	85-01-8	2.4		0.013	0.00640	mg/kg	1850	NMED SSL	
0620F4AEC-05D-SO	J151-06	10/12/2017		Pyrene	129-00-0	7.3		0.013	0.00640	mg/kg	1740	NMED SSL	
0620F-4AEC06-0.0-0.5D-SO	B104-07	2/9/2016	0-0.5	Benzo(a)anthracene	56-55-3	0.0046	J	0.0027	0.0026	mg/kg	1.53	NMED SSL	
0620F-4AEC06-0.0-0.5D-SO	B104-07	2/9/2016	0-0.5	Benzo(a)pyrene	50-32-8	0.0049	J	0.0027	0.0013	mg/kg	1.12	NMED SSL	
0620F-4AEC06-0.0-0.5D-SO	B104-07	2/9/2016	0-0.5	Benzo(b)fluoranthene	205-99-2	0.007	J	0.0027	0.0013	mg/kg	1.53	NMED SSL	
0620F-4AEC06-0.0-0.5D-SO	B104-07	2/9/2016	0-0.5	Benzo(k)fluoranthene	207-08-9	0.0023	J	0.0027	0.0013	mg/kg	15.3	NMED SSL	
0620F-4AEC06-0.0-0.5D-SO	B104-07	2/9/2016	0-0.5	Chrysene	218-01-9	0.0032	J	0.0027	0.0023	mg/kg	153	NMED SSL	
0620F-4AEC06-0.0-0.5D-SO	B104-07	2/9/2016	0-0.5	Fluoranthene	206-44-0	0.0048	J	0.0027	0.0013	mg/kg	2320	NMED SSL	
0620F-4AEC06-0.0-0.5D-SO	B104-07	2/9/2016	0-0.5	Indeno(1,2,3-cd)pyrene	193-39-5	0.0034	J	0.0027	0.0013	mg/kg	1.53	NMED SSL	
0620F-4AEC06-0.0-0.5D-SO	B104-07	2/9/2016	0-0.5	Pyrene	129-00-0	0.0048	J	0.0027	0.0013	mg/kg	1740	NMED SSL	
0620F4AEC-06D-SO	J151-07	10/12/2017		Anthracene	120-12-7	0.013	J	0.011	0.00550	mg/kg	17400	NMED SSL	
0620F4AEC-06D-SO	J151-07	10/12/2017		Benzo(a)anthracene	56-55-3	0.049		0.011	0.0110	mg/kg	1.53	NMED SSL	
0620F4AEC-06D-SO	J151-07	10/12/2017		Benzo(a)pyrene	50-32-8	0.038	J	0.011	0.00550	mg/kg	1.12	NMED SSL	

Table B.5-6 Parcel 6 SWMU 20 (Feature 4) Excavation Confirmation Sampling Results (detections only), Method 8270 SIM Semi-Volatile Organic Compounds

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0620F4AEC-06D-SO	J151-07	10/12/2017		Benzo(b)fluoranthene	205-99-2	0.053		0.011	0.00550	mg/kg	1.53	NMED SSL	
0620F4AEC-06D-SO	J151-07	10/12/2017		Benzo(k)fluoranthene	207-08-9	0.0086	J	0.011	0.00550	mg/kg	15.3	NMED SSL	
0620F4AEC-06D-SO	J151-07	10/12/2017		Chrysene	218-01-9	0.03	J	0.011	0.00970	mg/kg	153	NMED SSL	
0620F4AEC-06D-SO	J151-07	10/12/2017		Dibenz(a,h)anthracene	53-70-3	0.019	J	0.011	0.00550	mg/kg	0.153	NMED SSL	
0620F4AEC-06D-SO	J151-07	10/12/2017		Fluoranthene	206-44-0	0.068		0.011	0.00550	mg/kg	2320	NMED SSL	
0620F4AEC-06D-SO	J151-07	10/12/2017		Fluorene	86-73-7	0.0064	J	0.011	0.00550	mg/kg	2320	NMED SSL	
0620F4AEC-06D-SO	J151-07	10/12/2017		Indeno(1,2,3-cd)pyrene	193-39-5	0.018	J	0.011	0.00550	mg/kg	1.53	NMED SSL	
0620F4AEC-06D-SO	J151-07	10/12/2017		Phenanthrene	85-01-8	0.049		0.011	0.00550	mg/kg	1850	NMED SSL	
0620F4AEC-06D-SO	J151-07	10/12/2017		Pyrene	129-00-0	0.054		0.011	0.00550	mg/kg	1740	NMED SSL	
0620F-4AEC07-0.0-0.5D-SO	B104-08	2/9/2016	0-0.5	Benzo(a)anthracene	56-55-3	0.0064	J	0.0027	0.0027	mg/kg	1.53	NMED SSL	
0620F-4AEC07-0.0-0.5D-SO	B104-08	2/9/2016	0-0.5	Benzo(a)pyrene	50-32-8	0.006	J	0.0027	0.0014	mg/kg	1.12	NMED SSL	
0620F-4AEC07-0.0-0.5D-SO	B104-08	2/9/2016	0-0.5	Benzo(b)fluoranthene	205-99-2	0.011	J	0.0027	0.0014	mg/kg	1.53	NMED SSL	
0620F-4AEC07-0.0-0.5D-SO	B104-08	2/9/2016	0-0.5	Benzo(k)fluoranthene	207-08-9	0.0026	J	0.0027	0.0014	mg/kg	15.3	NMED SSL	
0620F-4AEC07-0.0-0.5D-SO	B104-08	2/9/2016	0-0.5	Chrysene	218-01-9	0.0058	J	0.0027	0.0024	mg/kg	153	NMED SSL	
0620F-4AEC07-0.0-0.5D-SO	B104-08	2/9/2016	0-0.5	Fluoranthene	206-44-0	0.0079	J	0.0027	0.0014	mg/kg	2320	NMED SSL	
0620F-4AEC07-0.0-0.5D-SO	B104-08	2/9/2016	0-0.5	Indeno(1,2,3-cd)pyrene	193-39-5	0.0041	J	0.0027	0.0014	mg/kg	1.53	NMED SSL	
0620F-4AEC07-0.0-0.5D-SO	B104-08	2/9/2016	0-0.5	Phenanthrene	85-01-8	0.0021	J	0.0027	0.0014	mg/kg	1850	NMED SSL	
0620F-4AEC07-0.0-0.5D-SO	B104-08	2/9/2016	0-0.5	Pyrene	129-00-0	0.0084	J	0.0027	0.0014	mg/kg	1740	NMED SSL	
0620F4AEC-07D-SO	J151-08	10/12/2017		Benzo(a)anthracene	56-55-3	0.0037	J	0.0029	0.00280	mg/kg	1.53	NMED SSL	
0620F4AEC-07D-SO	J151-08	10/12/2017		Benzo(a)pyrene	50-32-8	0.0048	J	0.0029	0.00140	mg/kg	1.12	NMED SSL	
0620F4AEC-07D-SO	J151-08	10/12/2017		Benzo(b)fluoranthene	205-99-2	0.0081	J	0.0029	0.00140	mg/kg	1.53	NMED SSL	
0620F4AEC-07D-SO	J151-08	10/12/2017		Chrysene	218-01-9	0.004	J	0.0029	0.00250	mg/kg	153	NMED SSL	
0620F4AEC-07D-SO	J151-08	10/12/2017		Fluoranthene	206-44-0	0.0062	J	0.0029	0.00140	mg/kg	2320	NMED SSL	
0620F4AEC-07D-SO	J151-08	10/12/2017		Indeno(1,2,3-cd)pyrene	193-39-5	0.0023	J	0.0029	0.00140	mg/kg	1.53	NMED SSL	
0620F4AEC-07D-SO	J151-08	10/12/2017		Phenanthrene	85-01-8	0.0043	J	0.0029	0.00140	mg/kg	1850	NMED SSL	
0620F4AEC-07D-SO	J151-08	10/12/2017		Pyrene	129-00-0	0.005	J	0.0029	0.00140	mg/kg	1740	NMED SSL	
0620F-4AEC08-0.0-0.5D-DUP (Excavated)	B104-09	2/9/2016	0-0.5	Anthracene	120-12-7	0.011	J	0.0028	0.0014	mg/kg	17400	NMED SSL	
0620F-4AEC08-0.0-0.5D-DUP (Excavated)	B104-09	2/9/2016	0-0.5	Benzo(a)anthracene	56-55-3	0.14	J	0.0028	0.0028	mg/kg	1.53	NMED SSL	

Table B.5-6 Parcel 6 SWMU 20 (Feature 4) Excavation Confirmation Sampling Results (detections only), Method 8270 SIM Semi-Volatile Organic Compounds

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0620F-4AEC08-0.0-0.5D-DUP (Excavated)	B104-09	2/9/2016	0-0.5	Benzo(a)pyrene	50-32-8	0.16	J	0.0028	0.0014	mg/kg	1.12	NMED SSL	
0620F-4AEC08-0.0-0.5D-DUP (Excavated)	B104-09	2/9/2016	0-0.5	Benzo(b)fluoranthene	205-99-2	0.24	J	0.0028	0.0014	mg/kg	1.53	NMED SSL	
0620F-4AEC08-0.0-0.5D-DUP (Excavated)	B104-09	2/9/2016	0-0.5	Benzo(k)fluoranthene	207-08-9	0.076		0.0028	0.0014	mg/kg	15.3	NMED SSL	
0620F-4AEC08-0.0-0.5D-DUP (Excavated)	B104-09	2/9/2016	0-0.5	Chrysene	218-01-9	0.14	J	0.0028	0.0025	mg/kg	153	NMED SSL	
0620F-4AEC08-0.0-0.5D-DUP (Excavated)	B104-09	2/9/2016	0-0.5	Dibenz(a,h)anthracene	53-70-3	0.023	J	0.0028	0.0014	mg/kg	0.153	NMED SSL	
0620F-4AEC08-0.0-0.5D-DUP (Excavated)	B104-09	2/9/2016	0-0.5	Fluoranthene	206-44-0	0.17	J	0.0028	0.0014	mg/kg	2320	NMED SSL	
0620F-4AEC08-0.0-0.5D-DUP (Excavated)	B104-09	2/9/2016	0-0.5	Indeno(1,2,3-cd)pyrene	193-39-5	0.092	J	0.0028	0.0014	mg/kg	1.53	NMED SSL	
0620F-4AEC08-0.0-0.5D-DUP (Excavated)	B104-09	2/9/2016	0-0.5	Naphthalene	91-20-3	0.0074	J	0.0028	0.0014	mg/kg	22.6	NMED SSL	
0620F-4AEC08-0.0-0.5D-DUP (Excavated)	B104-09	2/9/2016	0-0.5	Phenanthrene	85-01-8	0.027		0.0028	0.0014	mg/kg	1850	NMED SSL	
0620F-4AEC08-0.0-0.5D-DUP (Excavated)	B104-09	2/9/2016	0-0.5	Pyrene	129-00-0	0.18	J	0.0028	0.0014	mg/kg	1740	NMED SSL	
0620F-4AEC08-0.0-0.5D-SO (Excavated)	B104-10	2/9/2016	0-0.5	Anthracene	120-12-7	0.02		0.0028	0.0014	mg/kg	17400	NMED SSL	
0620F-4AEC08-0.0-0.5D-SO (Excavated)	B104-10	2/9/2016	0-0.5	Benzo(a)anthracene	56-55-3	0.28	J	0.0028	0.0028	mg/kg	1.53	NMED SSL	
0620F-4AEC08-0.0-0.5D-SO (Excavated)	B104-10	2/9/2016	0-0.5	Benzo(a)pyrene	50-32-8	0.31	J	0.0028	0.0014	mg/kg	1.12	NMED SSL	
0620F-4AEC08-0.0-0.5D-SO (Excavated)	B104-10	2/9/2016	0-0.5	Benzo(b)fluoranthene	205-99-2	0.5	J	0.0028	0.0014	mg/kg	1.53	NMED SSL	
0620F-4AEC08-0.0-0.5D-SO (Excavated)	B104-10	2/9/2016	0-0.5	Benzo(k)fluoranthene	207-08-9	0.11		0.0028	0.0014	mg/kg	15.3	NMED SSL	
0620F-4AEC08-0.0-0.5D-SO (Excavated)	B104-10	2/9/2016	0-0.5	Chrysene	218-01-9	0.27	J	0.0028	0.0025	mg/kg	153	NMED SSL	
0620F-4AEC08-0.0-0.5D-SO (Excavated)	B104-10	2/9/2016	0-0.5	Dibenz(a,h)anthracene	53-70-3	0.041	J	0.0028	0.0014	mg/kg	0.153	NMED SSL	
0620F-4AEC08-0.0-0.5D-SO (Excavated)	B104-10	2/9/2016	0-0.5	Fluoranthene	206-44-0	0.32	J	0.0028	0.0014	mg/kg	2320	NMED SSL	
0620F-4AEC08-0.0-0.5D-SO (Excavated)	B104-10	2/9/2016	0-0.5	Fluorene	86-73-7	0.0029	J	0.0028	0.0014	mg/kg	2320	NMED SSL	
0620F-4AEC08-0.0-0.5D-SO (Excavated)	B104-10	2/9/2016	0-0.5	Indeno(1,2,3-cd)pyrene	193-39-5	0.17	J	0.0028	0.0014	mg/kg	1.53	NMED SSL	
0620F-4AEC08-0.0-0.5D-SO (Excavated)	B104-10	2/9/2016	0-0.5	Naphthalene	91-20-3	0.0069	J	0.0028	0.0014	mg/kg	22.6	NMED SSL	
0620F-4AEC08-0.0-0.5D-SO (Excavated)	B104-10	2/9/2016	0-0.5	Phenanthrene	85-01-8	0.037		0.0028	0.0014	mg/kg	1850	NMED SSL	
0620F-4AEC08-0.0-0.5D-SO (Excavated)	B104-10	2/9/2016	0-0.5	Pyrene	129-00-0	0.32	J	0.0028	0.0014	mg/kg	1740	NMED SSL	
0620F-4AEC08-1.0-1.5D-SO	C049-03	3/7/2016	1-1.5	Benzo(a)pyrene	50-32-8	0.0021	J	0.0026	0.0013	mg/kg	1.12	NMED SSL	
0620F-4AEC08-1.0-1.5D-SO	C049-03	3/7/2016	1-1.5	Benzo(b)fluoranthene	205-99-2	0.0038	J	0.0026	0.0013	mg/kg	1.53	NMED SSL	
0620F-4AEC08-1.0-1.5D-SO	C049-03	3/7/2016	1-1.5	Chrysene	218-01-9	0.0023	J	0.0026	0.0023	mg/kg	153	NMED SSL	
0620F-4AEC08-1.0-1.5D-SO	C049-03	3/7/2016	1-1.5	Fluoranthene	206-44-0	0.0026	J	0.0026	0.0013	mg/kg	2320	NMED SSL	

Table B.5-6 Parcel 6 SWMU 20 (Feature 4) Excavation Confirmation Sampling Results (detections only), Method 8270 SIM Semi-Volatile Organic Compounds

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0620F-4AEC08-1.0-1.5D-SO	C049-03	3/7/2016	1-1.5	Indeno(1,2,3-cd)pyrene	193-39-5	0.0018	J	0.0026	0.0013	mg/kg	1.53	NMED SSL	
0620F-4AEC08-1.0-1.5D-SO	C049-03	3/7/2016	1-1.5	Pyrene	129-00-0	0.0031	J	0.0026	0.0013	mg/kg	1740	NMED SSL	
0620F4AEC-08D-SO	J151-09	10/12/2017		Benzo(a)anthracene	56-55-3	0.004	J	0.0028	0.00270	mg/kg	1.53	NMED SSL	
0620F4AEC-08D-SO	J151-09	10/12/2017		Benzo(a)pyrene	50-32-8	0.006	J	0.0028	0.00140	mg/kg	1.12	NMED SSL	
0620F4AEC-08D-SO	J151-09	10/12/2017		Benzo(b)fluoranthene	205-99-2	0.0078	J	0.0028	0.00140	mg/kg	1.53	NMED SSL	
0620F4AEC-08D-SO	J151-09	10/12/2017		Chrysene	218-01-9	0.0042	J	0.0028	0.00240	mg/kg	153	NMED SSL	
0620F4AEC-08D-SO	J151-09	10/12/2017		Fluoranthene	206-44-0	0.0042	J	0.0028	0.00140	mg/kg	2320	NMED SSL	
0620F4AEC-08D-SO	J151-09	10/12/2017		Indeno(1,2,3-cd)pyrene	193-39-5	0.0027	J	0.0028	0.00140	mg/kg	1.53	NMED SSL	
0620F4AEC-08D-SO	J151-09	10/12/2017		Pyrene	129-00-0	0.0041	J	0.0028	0.00140	mg/kg	1740	NMED SSL	
0620F-4AEC09-0.0-0.5D-SO	B104-11	2/9/2016	0-0.5	Anthracene	120-12-7	0.0034	J	0.0027	0.0014	mg/kg	17400	NMED SSL	
0620F-4AEC09-0.0-0.5D-SO	B104-11	2/9/2016	0-0.5	Benzo(a)anthracene	56-55-3	0.021		0.0027	0.0027	mg/kg	1.53	NMED SSL	
0620F-4AEC09-0.0-0.5D-SO	B104-11	2/9/2016	0-0.5	Benzo(a)pyrene	50-32-8	0.023		0.0027	0.0014	mg/kg	1.12	NMED SSL	
0620F-4AEC09-0.0-0.5D-SO	B104-11	2/9/2016	0-0.5	Benzo(b)fluoranthene	205-99-2	0.035		0.0027	0.0014	mg/kg	1.53	NMED SSL	
0620F-4AEC09-0.0-0.5D-SO	B104-11	2/9/2016	0-0.5	Benzo(k)fluoranthene	207-08-9	0.0094	J	0.0027	0.0014	mg/kg	15.3	NMED SSL	
0620F-4AEC09-0.0-0.5D-SO	B104-11	2/9/2016	0-0.5	Chrysene	218-01-9	0.018		0.0027	0.0024	mg/kg	153	NMED SSL	
0620F-4AEC09-0.0-0.5D-SO	B104-11	2/9/2016	0-0.5	Dibenz(a,h)anthracene	53-70-3	0.0034	J	0.0027	0.0014	mg/kg	0.153	NMED SSL	
0620F-4AEC09-0.0-0.5D-SO	B104-11	2/9/2016	0-0.5	Fluoranthene	206-44-0	0.032		0.0027	0.0014	mg/kg	2320	NMED SSL	
0620F-4AEC09-0.0-0.5D-SO	B104-11	2/9/2016	0-0.5	Indeno(1,2,3-cd)pyrene	193-39-5	0.015		0.0027	0.0014	mg/kg	1.53	NMED SSL	
0620F-4AEC09-0.0-0.5D-SO	B104-11	2/9/2016	0-0.5	Naphthalene	91-20-3	0.0017	J	0.0027	0.0014	mg/kg	22.6	NMED SSL	
0620F-4AEC09-0.0-0.5D-SO	B104-11	2/9/2016	0-0.5	Phenanthrene	85-01-8	0.011		0.0027	0.0014	mg/kg	1850	NMED SSL	
0620F-4AEC09-0.0-0.5D-SO	B104-11	2/9/2016	0-0.5	Pyrene	129-00-0	0.029		0.0027	0.0014	mg/kg	1740	NMED SSL	
0620F-4AEC09-0.0-0.5D-SO-DUP	B104-12	2/9/2016	0-0.5	Anthracene	120-12-7	0.0023	J	0.0027	0.0014	mg/kg	17400	NMED SSL	
0620F-4AEC09-0.0-0.5D-SO-DUP	B104-12	2/9/2016	0-0.5	Benzo(a)anthracene	56-55-3	0.018		0.0027	0.0027	mg/kg	1.53	NMED SSL	
0620F-4AEC09-0.0-0.5D-SO-DUP	B104-12	2/9/2016	0-0.5	Benzo(a)pyrene	50-32-8	0.019		0.0027	0.0014	mg/kg	1.12	NMED SSL	
0620F-4AEC09-0.0-0.5D-SO-DUP	B104-12	2/9/2016	0-0.5	Benzo(b)fluoranthene	205-99-2	0.034		0.0027	0.0014	mg/kg	1.53	NMED SSL	
0620F-4AEC09-0.0-0.5D-SO-DUP	B104-12	2/9/2016	0-0.5	Benzo(k)fluoranthene	207-08-9	0.009	J	0.0027	0.0014	mg/kg	15.3	NMED SSL	
0620F-4AEC09-0.0-0.5D-SO-DUP	B104-12	2/9/2016	0-0.5	Chrysene	218-01-9	0.017		0.0027	0.0024	mg/kg	153	NMED SSL	
0620F-4AEC09-0.0-0.5D-SO-DUP	B104-12	2/9/2016	0-0.5	Dibenz(a,h)anthracene	53-70-3	0.0032	J	0.0027	0.0014	mg/kg	0.153	NMED SSL	
0620F-4AEC09-0.0-0.5D-SO-DUP	B104-12	2/9/2016	0-0.5	Fluoranthene	206-44-0	0.021		0.0027	0.0014	mg/kg	2320	NMED SSL	

Table B.5-6 Parcel 6 SWMU 20 (Feature 4) Excavation Confirmation Sampling Results (detections only), Method 8270 SIM Semi-Volatile Organic Compounds

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0620F-4AEC09-0.0-0.5D-SO-DUP	B104-12	2/9/2016	0-0.5	Indeno(1,2,3-cd)pyrene	193-39-5	0.014		0.0027	0.0014	mg/kg	1.53	NMED SSL	
0620F-4AEC09-0.0-0.5D-SO-DUP	B104-12	2/9/2016	0-0.5	Naphthalene	91-20-3	0.0018	J	0.0027	0.0014	mg/kg	22.6	NMED SSL	
0620F-4AEC09-0.0-0.5D-SO-DUP	B104-12	2/9/2016	0-0.5	Phenanthrene	85-01-8	0.0069	J	0.0027	0.0014	mg/kg	1850	NMED SSL	
0620F-4AEC09-0.0-0.5D-SO-DUP	B104-12	2/9/2016	0-0.5	Pyrene	129-00-0	0.022		0.0027	0.0014	mg/kg	1740	NMED SSL	
0620F4AEC-09D-SO	J151-10	10/12/2017		Benzo(a)anthracene	56-55-3	0.012		0.0028	0.00270	mg/kg	1.53	NMED SSL	
0620F4AEC-09D-SO	J151-10	10/12/2017		Benzo(a)pyrene	50-32-8	0.013		0.0028	0.00140	mg/kg	1.12	NMED SSL	
0620F4AEC-09D-SO	J151-10	10/12/2017		Benzo(b)fluoranthene	205-99-2	0.023		0.0028	0.00140	mg/kg	1.53	NMED SSL	
0620F4AEC-09D-SO	J151-10	10/12/2017		Benzo(k)fluoranthene	207-08-9	0.0053	J	0.0028	0.00140	mg/kg	15.3	NMED SSL	
0620F4AEC-09D-SO	J151-10	10/12/2017		Chrysene	218-01-9	0.016		0.0028	0.00240	mg/kg	153	NMED SSL	
0620F4AEC-09D-SO	J151-10	10/12/2017		Fluoranthene	206-44-0	0.017		0.0028	0.00140	mg/kg	2320	NMED SSL	
0620F4AEC-09D-SO	J151-10	10/12/2017		Indeno(1,2,3-cd)pyrene	193-39-5	0.0098	J	0.0028	0.00140	mg/kg	1.53	NMED SSL	
0620F4AEC-09D-SO	J151-10	10/12/2017		Phenanthrene	85-01-8	0.0039	J	0.0028	0.00140	mg/kg	1850	NMED SSL	
0620F4AEC-09D-SO	J151-10	10/12/2017		Pyrene	129-00-0	0.019		0.0028	0.00140	mg/kg	1740	NMED SSL	
0620F4AEC10-0.0-0.5D-SO	J152-01	10/12/2017	0-0.5	Benzo(a)anthracene	56-55-3	0.014	J	0.0054	0.00530	mg/kg	1.53	NMED SSL	
0620F4AEC10-0.0-0.5D-SO	J152-01	10/12/2017	0-0.5	Benzo(a)pyrene	50-32-8	0.011	J	0.0054	0.00270	mg/kg	1.12	NMED SSL	
0620F4AEC10-0.0-0.5D-SO	J152-01	10/12/2017	0-0.5	Benzo(b)fluoranthene	205-99-2	0.017	J	0.0054	0.00270	mg/kg	1.53	NMED SSL	
0620F4AEC10-0.0-0.5D-SO	J152-01	10/12/2017	0-0.5	Benzo(k)fluoranthene	207-08-9	0.0046	J	0.0054	0.00270	mg/kg	15.3	NMED SSL	
0620F4AEC10-0.0-0.5D-SO	J152-01	10/12/2017	0-0.5	Chrysene	218-01-9	0.01	J	0.0054	0.00470	mg/kg	153	NMED SSL	
0620F4AEC10-0.0-0.5D-SO	J152-01	10/12/2017	0-0.5	Fluoranthene	206-44-0	0.016	J	0.0054	0.00270	mg/kg	2320	NMED SSL	
0620F4AEC10-0.0-0.5D-SO	J152-01	10/12/2017	0-0.5	Indeno(1,2,3-cd)pyrene	193-39-5	0.0065	J	0.0054	0.00270	mg/kg	1.53	NMED SSL	
0620F4AEC10-0.0-0.5D-SO	J152-01	10/12/2017	0-0.5	Phenanthrene	85-01-8	0.0074	J	0.0054	0.00270	mg/kg	1850	NMED SSL	
0620F4AEC10-0.0-0.5D-SO	J152-01	10/12/2017	0-0.5	Pyrene	129-00-0	0.013	J	0.0054	0.00270	mg/kg	1740	NMED SSL	
0620F4AEC-10D-SO	J151-11	10/12/2017		Benzo(a)anthracene	56-55-3	0.015		0.0028	0.00270	mg/kg	1.53	NMED SSL	
0620F4AEC-10D-SO	J151-11	10/12/2017		Benzo(a)pyrene	50-32-8	0.021		0.0028	0.00140	mg/kg	1.12	NMED SSL	
0620F4AEC-10D-SO	J151-11	10/12/2017		Benzo(b)fluoranthene	205-99-2	0.037		0.0028	0.00140	mg/kg	1.53	NMED SSL	
0620F4AEC-10D-SO	J151-11	10/12/2017		Benzo(k)fluoranthene	207-08-9	0.01	J	0.0028	0.00140	mg/kg	15.3	NMED SSL	
0620F4AEC-10D-SO	J151-11	10/12/2017		Chrysene	218-01-9	0.02		0.0028	0.00250	mg/kg	153	NMED SSL	
0620F4AEC-10D-SO	J151-11	10/12/2017		Dibenz(a,h)anthracene	53-70-3	0.0059	J	0.0028	0.00140	mg/kg	0.153	NMED SSL	
0620F4AEC-10D-SO	J151-11	10/12/2017		Fluoranthene	206-44-0	0.02		0.0028	0.00140	mg/kg	2320	NMED SSL	

Table B.5-6 Parcel 6 SWMU 20 (Feature 4) Excavation Confirmation Sampling Results (detections only), Method 8270 SIM Semi-Volatile Organic Compounds

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0620F4AEC-10D-SO	J151-11	10/12/2017		Indeno(1,2,3-cd)pyrene	193-39-5	0.015		0.0028	0.00140	mg/kg	1.53	NMED SSL	
0620F4AEC-10D-SO	J151-11	10/12/2017		Naphthalene	91-20-3	0.0024	J	0.0028	0.00140	mg/kg	22.6	NMED SSL	
0620F4AEC-10D-SO	J151-11	10/12/2017		Phenanthrene	85-01-8	0.0043	J	0.0028	0.00140	mg/kg	1850	NMED SSL	
0620F4AEC-10D-SO	J151-11	10/12/2017		Pyrene	129-00-0	0.019		0.0028	0.00140	mg/kg	1740	NMED SSL	
0620F4AEC11-0.0-0.5D-SO	J152-02	10/12/2017	0-0.5	Anthracene	120-12-7	0.0059	J	0.011	0.00550	mg/kg	17400	NMED SSL	
0620F4AEC11-0.0-0.5D-SO	J152-02	10/12/2017	0-0.5	Benzo(a)anthracene	56-55-3	0.11		0.011	0.0110	mg/kg	1.53	NMED SSL	
0620F4AEC11-0.0-0.5D-SO	J152-02	10/12/2017	0-0.5	Benzo(a)pyrene	50-32-8	0.11		0.011	0.00550	mg/kg	1.12	NMED SSL	
0620F4AEC11-0.0-0.5D-SO	J152-02	10/12/2017	0-0.5	Benzo(b)fluoranthene	205-99-2	0.17		0.011	0.00550	mg/kg	1.53	NMED SSL	
0620F4AEC11-0.0-0.5D-SO	J152-02	10/12/2017	0-0.5	Benzo(k)fluoranthene	207-08-9	0.042	J	0.011	0.00550	mg/kg	15.3	NMED SSL	
0620F4AEC11-0.0-0.5D-SO	J152-02	10/12/2017	0-0.5	Chrysene	218-01-9	0.11		0.011	0.00960	mg/kg	153	NMED SSL	
0620F4AEC11-0.0-0.5D-SO	J152-02	10/12/2017	0-0.5	Dibenz(a,h)anthracene	53-70-3	0.017	J	0.011	0.00550	mg/kg	0.153	NMED SSL	
0620F4AEC11-0.0-0.5D-SO	J152-02	10/12/2017	0-0.5	Fluoranthene	206-44-0	0.14		0.011	0.00550	mg/kg	2320	NMED SSL	
0620F4AEC11-0.0-0.5D-SO	J152-02	10/12/2017	0-0.5	Indeno(1,2,3-cd)pyrene	193-39-5	0.065		0.011	0.00550	mg/kg	1.53	NMED SSL	
0620F4AEC11-0.0-0.5D-SO	J152-02	10/12/2017	0-0.5	Naphthalene	91-20-3	0.0086	J	0.011	0.00550	mg/kg	22.6	NMED SSL	
0620F4AEC11-0.0-0.5D-SO	J152-02	10/12/2017	0-0.5	Phenanthrene	85-01-8	0.022	J	0.011	0.00550	mg/kg	1850	NMED SSL	
0620F4AEC11-0.0-0.5D-SO	J152-02	10/12/2017	0-0.5	Pyrene	129-00-0	0.14		0.011	0.00550	mg/kg	1740	NMED SSL	
0620F4AEC-11D-SO	J151-12	10/12/2017		Benzo(a)anthracene	56-55-3	0.02	J	0.0055	0.00540	mg/kg	1.53	NMED SSL	
0620F4AEC-11D-SO	J151-12	10/12/2017		Benzo(a)pyrene	50-32-8	0.025		0.0055	0.00270	mg/kg	1.12	NMED SSL	
0620F4AEC-11D-SO	J151-12	10/12/2017		Benzo(b)fluoranthene	205-99-2	0.041		0.0055	0.00270	mg/kg	1.53	NMED SSL	
0620F4AEC-11D-SO	J151-12	10/12/2017		Benzo(k)fluoranthene	207-08-9	0.011	J	0.0055	0.00270	mg/kg	15.3	NMED SSL	
0620F4AEC-11D-SO	J151-12	10/12/2017		Chrysene	218-01-9	0.022	J	0.0055	0.00480	mg/kg	153	NMED SSL	
0620F4AEC-11D-SO	J151-12	10/12/2017		Dibenz(a,h)anthracene	53-70-3	0.0089	J	0.0055	0.00270	mg/kg	0.153	NMED SSL	
0620F4AEC-11D-SO	J151-12	10/12/2017		Fluoranthene	206-44-0	0.018	J	0.0055	0.00270	mg/kg	2320	NMED SSL	
0620F4AEC-11D-SO	J151-12	10/12/2017		Indeno(1,2,3-cd)pyrene	193-39-5	0.018	J	0.0055	0.00270	mg/kg	1.53	NMED SSL	
0620F4AEC-11D-SO	J151-12	10/12/2017		Naphthalene	91-20-3	0.0084	J	0.0055	0.00270	mg/kg	22.6	NMED SSL	
0620F4AEC-11D-SO	J151-12	10/12/2017		Phenanthrene	85-01-8	0.0074	J	0.0055	0.00270	mg/kg	1850	NMED SSL	
0620F4AEC-11D-SO	J151-12	10/12/2017		Pyrene	129-00-0	0.02	J	0.0055	0.00270	mg/kg	1740	NMED SSL	
0620F4AEC-12D-SO	J151-13	10/12/2017		Benzo(a)anthracene	56-55-3	0.011		0.0026	0.00260	mg/kg	1.53	NMED SSL	
0620F4AEC-12D-SO	J151-13	10/12/2017		Benzo(a)pyrene	50-32-8	0.013		0.0026	0.00130	mg/kg	1.12	NMED SSL	

Table B.5-6 Parcel 6 SWMU 20 (Feature 4) Excavation Confirmation Sampling Results (detections only), Method 8270 SIM Semi-Volatile Organic Compounds

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0620F4AEC-12D-SO	J151-13	10/12/2017		Benzo(b)fluoranthene	205-99-2	0.022		0.0026	0.00130	mg/kg	1.53	NMED SSL	
0620F4AEC-12D-SO	J151-13	10/12/2017		Benzo(k)fluoranthene	207-08-9	0.0057	J	0.0026	0.00130	mg/kg	15.3	NMED SSL	
0620F4AEC-12D-SO	J151-13	10/12/2017		Chrysene	218-01-9	0.013		0.0026	0.00230	mg/kg	153	NMED SSL	
0620F4AEC-12D-SO	J151-13	10/12/2017		Dibenz(a,h)anthracene	53-70-3	0.0044	J	0.0026	0.00130	mg/kg	0.153	NMED SSL	
0620F4AEC-12D-SO	J151-13	10/12/2017		Fluoranthene	206-44-0	0.0094	J	0.0026	0.00130	mg/kg	2320	NMED SSL	
0620F4AEC-12D-SO	J151-13	10/12/2017		Indeno(1,2,3-cd)pyrene	193-39-5	0.0099	J	0.0026	0.00130	mg/kg	1.53	NMED SSL	
0620F4AEC-12D-SO	J151-13	10/12/2017		Pyrene	129-00-0	0.011		0.0026	0.00130	mg/kg	1740	NMED SSL	
0620F4AEC13-0.0-0.5D-SO	J152-04	10/12/2017	0-0.5	Benzo(b)fluoranthene	205-99-2	0.0023	J	0.0027	0.00130	mg/kg	1.53	NMED SSL	
0620F4AEC13-0.0-0.5D-SO	J152-04	10/12/2017	0-0.5	Fluoranthene	206-44-0	0.0019	J	0.0027	0.00130	mg/kg	2320	NMED SSL	
0620F4AEC13-0.0-0.5D-SO	J152-04	10/12/2017	0-0.5	Pyrene	129-00-0	0.0019	J	0.0027	0.00130	mg/kg	1740	NMED SSL	
0620F4AEC15-0.0-0.5D-SO	J152-06	10/12/2017	0-0.5	Benzo(a)anthracene	56-55-3	0.004	J	0.0027	0.00260	mg/kg	1.53	NMED SSL	
0620F4AEC15-0.0-0.5D-SO	J152-06	10/12/2017	0-0.5	Benzo(a)pyrene	50-32-8	0.0023	J	0.0027	0.00130	mg/kg	1.12	NMED SSL	
0620F4AEC15-0.0-0.5D-SO	J152-06	10/12/2017	0-0.5	Benzo(b)fluoranthene	205-99-2	0.0053	J	0.0027	0.00130	mg/kg	1.53	NMED SSL	
0620F4AEC15-0.0-0.5D-SO	J152-06	10/12/2017	0-0.5	Chrysene	218-01-9	0.0026	J	0.0027	0.00230	mg/kg	153	NMED SSL	
0620F4AEC15-0.0-0.5D-SO	J152-06	10/12/2017	0-0.5	Fluoranthene	206-44-0	0.0023	J	0.0027	0.00130	mg/kg	2320	NMED SSL	
0620F4AEC15-0.0-0.5D-SO	J152-06	10/12/2017	0-0.5	Pyrene	129-00-0	0.0024	J	0.0027	0.00130	mg/kg	1740	NMED SSL	
0620F4AEC15-0.0-0.5D-SO-DUP	J152-07	10/12/2017	0-0.5	Benzo(a)anthracene	56-55-3	0.0044	J	0.0027	0.00260	mg/kg	1.53	NMED SSL	
0620F4AEC15-0.0-0.5D-SO-DUP	J152-07	10/12/2017	0-0.5	Benzo(a)pyrene	50-32-8	0.0026	J	0.0027	0.00130	mg/kg	1.12	NMED SSL	
0620F4AEC15-0.0-0.5D-SO-DUP	J152-07	10/12/2017	0-0.5	Benzo(b)fluoranthene	205-99-2	0.0045	J	0.0027	0.00130	mg/kg	1.53	NMED SSL	
0620F4AEC15-0.0-0.5D-SO-DUP	J152-07	10/12/2017	0-0.5	Benzo(k)fluoranthene	207-08-9	0.0017	J	0.0027	0.00130	mg/kg	15.3	NMED SSL	
0620F4AEC15-0.0-0.5D-SO-DUP	J152-07	10/12/2017	0-0.5	Chrysene	218-01-9	0.0031	J	0.0027	0.00230	mg/kg	153	NMED SSL	
0620F4AEC15-0.0-0.5D-SO-DUP	J152-07	10/12/2017	0-0.5	Fluoranthene	206-44-0	0.0034	J	0.0027	0.00130	mg/kg	2320	NMED SSL	
0620F4AEC15-0.0-0.5D-SO-DUP	J152-07	10/12/2017	0-0.5	Indeno(1,2,3-cd)pyrene	193-39-5	0.0022	J	0.0027	0.00130	mg/kg	1.53	NMED SSL	
0620F4AEC15-0.0-0.5D-SO-DUP	J152-07	10/12/2017	0-0.5	Naphthalene	91-20-3	0.0016	J	0.0027	0.00130	mg/kg	22.6	NMED SSL	
0620F4AEC15-0.0-0.5D-SO-DUP	J152-07	10/12/2017	0-0.5	Phenanthrene	85-01-8	0.0017	J	0.0027	0.00130	mg/kg	1850	NMED SSL	
0620F4AEC15-0.0-0.5D-SO-DUP	J152-07	10/12/2017	0-0.5	Pyrene	129-00-0	0.0034	J	0.0027	0.00130	mg/kg	1740	NMED SSL	

Notes:

CAS	Chemical Abstracts Service
DC	Direct Contact
DL	Detection Limit
DUP	Duplicate
EPA	Environmental Protection Agency
HH	Human Health
ID	Identification
LOD	Limit of Detection
LOQ	Limit of Quantiation
mg/kg	milligrams per kilogram
NMED	New Mexico Environment Department
NS	No Standard
RCRA	Resource Conservation and Recovery Act
RSL	Regional Screening Level
SSL	Soil Screening Level
SWMU	Soil Waste Management Unit

Lab Qualifier Codes:

Organics

J	Indicates that the analyte is positively identified and the result is less than the LOQ but greater than the DL.
U	Not detected at the LOD

Validation Qualifier Codes:

J	The analyte was positively identified; the associated numerical value is the approximate concentration
U	Not detected at or above the LOD.

Sample ID nomenclature:

Sample ID's consist of a combination of Parcel, AOC, additional site identifier, purpose of sample, increment number, sample depth, sample type, and matrix.

Example: 0608B537AEC-0.0-0.5D-SO
Parcel: 06
SWMU: 08

Additional Site Identifier: B537 (in this case it's Building 537)
Source of Sample: A (in this case it's Building 537 Area A)
Purpose of Sample: EC (excavation confirmation)
Sample Depth: Depth of samples will be designated with a 4-digit number, the first 2 digits starting depth, second 2 digits bottom depth (in this case 0.0 to 0.5 feet)
Sample Type: D (Discrete)
Sample Matrix: SO (soil) (in this case soil)
DUP = Field Duplicate (when applicable)

Screening level exceedances indicated by red result and a yellow highlighted "YES".

1. Excavated - Sample location was excavated during the Permittee-Initiated Interim Measure.

+ Screening Level Sources:

NMED SSL and EPA RSL	The HH DC Value selected is the lowest NMED Direct Contact Screening Level (for residents, industrial/occupational workers, and construction workers) via NMED Risk Assessment Guidance for Site Investigations and Remediation, November 2022 Revised. If there is no NMED Direct Contact Screening Level, the lowest EPA Residential RSL is selected for a target excess cancer risk level of 1 x 10-5 or target noncancer hazard quotient of 1.0 (November 2024). The most recent screening levels published by NMED and USEPA at the time the risk evaluation is conducted will be used in the risk evaluation.

Table B.5-7 Parcel 6 SWMU 20 (Feature 4) Excavation Confirmation Sampling Results (detections only), Method 6010C/6020A/7471B Metals

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0620F-4AEC01-0.0-0.5D-SO	B104-01	2/9/2016	0-0.5	Arsenic	7440-38-2	4.24		0.473	0.237	mg/kg	7.07	NMED SSL	
0620F-4AEC01-0.0-0.5D-SO	B104-01	2/9/2016	0-0.5	Barium	7440-39-3	292		0.237	0.118	mg/kg	4390	NMED SSL	
0620F-4AEC01-0.0-0.5D-SO	B104-01	2/9/2016	0-0.5	Cadmium	7440-43-9	0.121	J	0.237	0.118	mg/kg	70.5	NMED SSL	
0620F-4AEC01-0.0-0.5D-SO	B104-01	2/9/2016	0-0.5	Lead	7439-92-1	14.7		0.355	0.177	mg/kg	200	EPA RSL	
0620F-4AEC01-0.0-0.5D-SO	B104-01	2/9/2016	0-0.5	Selenium	7782-49-2	0.558	J	0.591	0.319	mg/kg	391	NMED SSL	
0620F-4AEC01-0.0-0.5D-SO	B104-01	2/9/2016	0-0.5	Total Chromium	7440-47-3	13.1		0.355	0.177	mg/kg	96.6	NMED SSL	
0620F-4AEC01-0.0-0.5D-SO	B104-01	2/9/2016	0-0.5	Mercury	7439-97-6	0.0339	J	0.025	0.012	mg/kg	20.7	NMED SSL	
0620F4AEC-01D-SO	J151-01	10/12/2017		Arsenic	7440-38-2	2.56		0.111	0.0555	mg/kg	7.07	NMED SSL	
0620F4AEC-01D-SO	J151-01	10/12/2017		Barium	7440-39-3	217		0.111	0.0799	mg/kg	4390	NMED SSL	
0620F4AEC-01D-SO	J151-01	10/12/2017		Cadmium	7440-43-9	0.269	J	0.111	0.0633	mg/kg	70.5	NMED SSL	
0620F4AEC-01D-SO	J151-01	10/12/2017		Lead	7439-92-1	15.2		0.111	0.0555	mg/kg	200	EPA RSL	
0620F4AEC-01D-SO	J151-01	10/12/2017		Selenium	7782-49-2	0.248	J	0.111	0.0555	mg/kg	391	NMED SSL	
0620F4AEC-01D-SO	J151-01	10/12/2017		Silver	7440-22-4	0.0895	J	0.111	0.0555	mg/kg	391	NMED SSL	
0620F4AEC-01D-SO	J151-01	10/12/2017		Total Chromium	7440-47-3	8.96		0.111	0.0555	mg/kg	96.6	NMED SSL	
0620F4AEC-01D-SO	J151-01	10/12/2017		Mercury	7439-97-6	0.0329	U	0.0217	0.0108	mg/kg	20.7	NMED SSL	
0620F-4AEC02-0.0-0.5D-DUP	B104-02	2/9/2016	0-0.5	Arsenic	7440-38-2	4.18		0.409	0.204	mg/kg	7.07	NMED SSL	
0620F-4AEC02-0.0-0.5D-DUP	B104-02	2/9/2016	0-0.5	Barium	7440-39-3	522		0.204	0.102	mg/kg	4390	NMED SSL	
0620F-4AEC02-0.0-0.5D-DUP	B104-02	2/9/2016	0-0.5	Cadmium	7440-43-9	0.153	J	0.204	0.102	mg/kg	70.5	NMED SSL	
0620F-4AEC02-0.0-0.5D-DUP	B104-02	2/9/2016	0-0.5	Lead	7439-92-1	15		0.306	0.153	mg/kg	200	EPA RSL	
0620F-4AEC02-0.0-0.5D-DUP	B104-02	2/9/2016	0-0.5	Selenium	7782-49-2	0.555	J	0.511	0.276	mg/kg	391	NMED SSL	
0620F-4AEC02-0.0-0.5D-DUP	B104-02	2/9/2016	0-0.5	Total Chromium	7440-47-3	9.56		0.306	0.153	mg/kg	96.6	NMED SSL	
0620F-4AEC02-0.0-0.5D-SO	B104-03	2/9/2016	0-0.5	Arsenic	7440-38-2	2.6		0.413	0.206	mg/kg	7.07	NMED SSL	
0620F-4AEC02-0.0-0.5D-SO	B104-03	2/9/2016	0-0.5	Barium	7440-39-3	496		0.206	0.103	mg/kg	4390	NMED SSL	
0620F-4AEC02-0.0-0.5D-SO	B104-03	2/9/2016	0-0.5	Cadmium	7440-43-9	0.139	J	0.206	0.103	mg/kg	70.5	NMED SSL	
0620F-4AEC02-0.0-0.5D-SO	B104-03	2/9/2016	0-0.5	Lead	7439-92-1	12.8		0.310	0.155	mg/kg	200	EPA RSL	
0620F-4AEC02-0.0-0.5D-SO	B104-03	2/9/2016	0-0.5	Selenium	7782-49-2	0.57	J	0.516	0.279	mg/kg	391	NMED SSL	
0620F-4AEC02-0.0-0.5D-SO	B104-03	2/9/2016	0-0.5	Total Chromium	7440-47-3	8.63		0.310	0.155	mg/kg	96.6	NMED SSL	
0620F4AEC-02D-SO	J151-02	10/12/2017		Arsenic	7440-38-2	4.23		0.118	0.0591	mg/kg	7.07	NMED SSL	
0620F4AEC-02D-SO	J151-02	10/12/2017		Barium	7440-39-3	235		0.118	0.0851	mg/kg	4390	NMED SSL	

Table B.5-7 Parcel 6 SWMU 20 (Feature 4) Excavation Confirmation Sampling Results (detections only), Method 6010C/6020A/7471B Metals

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0620F4AEC-02D-SO	J151-02	10/12/2017		Cadmium	7440-43-9	0.324	J	0.118	0.0673	mg/kg	70.5	NMED SSL	
0620F4AEC-02D-SO	J151-02	10/12/2017		Lead	7439-92-1	17.4		0.118	0.0591	mg/kg	200	EPA RSL	
0620F4AEC-02D-SO	J151-02	10/12/2017		Selenium	7782-49-2	0.325	J	0.118	0.0591	mg/kg	391	NMED SSL	
0620F4AEC-02D-SO	J151-02	10/12/2017		Silver	7440-22-4	0.0866	J	0.118	0.0591	mg/kg	391	NMED SSL	
0620F4AEC-02D-SO	J151-02	10/12/2017		Total Chromium	7440-47-3	12.5		0.118	0.0591	mg/kg	96.6	NMED SSL	
0620F4AEC-02D-SO	J151-02	10/12/2017		Mercury	7439-97-6	0.0493	U	0.0231	0.0116	mg/kg	20.7	NMED SSL	
0620F-4AEC03-0.0-0.5D-SO	B104-04	2/9/2016	0-0.5	Arsenic	7440-38-2	2.33		0.460	0.230	mg/kg	7.07	NMED SSL	
0620F-4AEC03-0.0-0.5D-SO	B104-04	2/9/2016	0-0.5	Barium	7440-39-3	190		0.230	0.115	mg/kg	4390	NMED SSL	
0620F-4AEC03-0.0-0.5D-SO	B104-04	2/9/2016	0-0.5	Lead	7439-92-1	54.7		0.345	0.172	mg/kg	200	EPA RSL	
0620F-4AEC03-0.0-0.5D-SO	B104-04	2/9/2016	0-0.5	Total Chromium	7440-47-3	7.19		0.345	0.172	mg/kg	96.6	NMED SSL	
0620F4AEC-03D-SO	J151-03	10/12/2017		Arsenic	7440-38-2	4.22		0.114	0.0572	mg/kg	7.07	NMED SSL	
0620F4AEC-03D-SO	J151-03	10/12/2017		Barium	7440-39-3	237		0.114	0.0824	mg/kg	4390	NMED SSL	
0620F4AEC-03D-SO	J151-03	10/12/2017		Cadmium	7440-43-9	0.304	J	0.114	0.0652	mg/kg	70.5	NMED SSL	
0620F4AEC-03D-SO	J151-03	10/12/2017		Lead	7439-92-1	15.8		0.114	0.0572	mg/kg	200	EPA RSL	
0620F4AEC-03D-SO	J151-03	10/12/2017		Selenium	7782-49-2	0.311	J	0.114	0.0572	mg/kg	391	NMED SSL	
0620F4AEC-03D-SO	J151-03	10/12/2017		Silver	7440-22-4	0.0822	J	0.114	0.0572	mg/kg	391	NMED SSL	
0620F4AEC-03D-SO	J151-03	10/12/2017		Total Chromium	7440-47-3	10.9		0.114	0.0572	mg/kg	96.6	NMED SSL	
0620F4AEC-03D-SO	J151-03	10/12/2017		Mercury	7439-97-6	0.0493	U	0.0226	0.0113	mg/kg	20.7	NMED SSL	
0620F-4AEC04-0.0-0.5D-SO	B104-05	2/9/2016	0-0.5	Arsenic	7440-38-2	4.74		0.462	0.231	mg/kg	7.07	NMED SSL	
0620F-4AEC04-0.0-0.5D-SO	B104-05	2/9/2016	0-0.5	Barium	7440-39-3	238		0.231	0.115	mg/kg	4390	NMED SSL	
0620F-4AEC04-0.0-0.5D-SO	B104-05	2/9/2016	0-0.5	Cadmium	7440-43-9	0.13	J	0.231	0.115	mg/kg	70.5	NMED SSL	
0620F-4AEC04-0.0-0.5D-SO	B104-05	2/9/2016	0-0.5	Lead	7439-92-1	16		0.346	0.173	mg/kg	200	EPA RSL	
0620F-4AEC04-0.0-0.5D-SO	B104-05	2/9/2016	0-0.5	Total Chromium	7440-47-3	12.6		0.346	0.173	mg/kg	96.6	NMED SSL	
0620F-4AEC04-0.0-0.5D-SO	B104-05	2/9/2016	0-0.5	Mercury	7439-97-6	0.039	J	0.023	0.012	mg/kg	20.7	NMED SSL	
0620F4AEC-04D-SO	J151-04	10/12/2017		Arsenic	7440-38-2	4.27		0.118	0.0591	mg/kg	7.07	NMED SSL	
0620F4AEC-04D-SO	J151-04	10/12/2017		Barium	7440-39-3	243		0.118	0.0850	mg/kg	4390	NMED SSL	
0620F4AEC-04D-SO	J151-04	10/12/2017		Cadmium	7440-43-9	0.323	J	0.118	0.0673	mg/kg	70.5	NMED SSL	
0620F4AEC-04D-SO	J151-04	10/12/2017		Lead	7439-92-1	17.1		0.118	0.0591	mg/kg	200	EPA RSL	
0620F4AEC-04D-SO	J151-04	10/12/2017		Selenium	7782-49-2	0.312	J	0.118	0.0591	mg/kg	391	NMED SSL	

Table B.5-7 Parcel 6 SWMU 20 (Feature 4) Excavation Confirmation Sampling Results (detections only), Method 6010C/6020A/7471B Metals

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0620F4AEC-04D-SO	J151-04	10/12/2017		Silver	7440-22-4	0.0805	J	0.118	0.0591	mg/kg	391	NMED SSL	
0620F4AEC-04D-SO	J151-04	10/12/2017		Total Chromium	7440-47-3	11.2		0.118	0.0591	mg/kg	96.6	NMED SSL	
0620F4AEC-04D-SO	J151-04	10/12/2017		Mercury	7439-97-6	0.0567	J	0.0235	0.0117	mg/kg	20.7	NMED SSL	
0620F4AEC-04D-SO-DUP	J151-05	10/12/2017		Arsenic	7440-38-2	3.98		0.117	0.0585	mg/kg	7.07	NMED SSL	
0620F4AEC-04D-SO-DUP	J151-05	10/12/2017		Barium	7440-39-3	227		0.117	0.0843	mg/kg	4390	NMED SSL	
0620F4AEC-04D-SO-DUP	J151-05	10/12/2017		Cadmium	7440-43-9	0.274	J	0.117	0.0667	mg/kg	70.5	NMED SSL	
0620F4AEC-04D-SO-DUP	J151-05	10/12/2017		Lead	7439-92-1	15.8		0.117	0.0585	mg/kg	200	EPA RSL	
0620F4AEC-04D-SO-DUP	J151-05	10/12/2017		Selenium	7782-49-2	0.272	J	0.117	0.0585	mg/kg	391	NMED SSL	
0620F4AEC-04D-SO-DUP	J151-05	10/12/2017		Silver	7440-22-4	0.0736	J	0.117	0.0585	mg/kg	391	NMED SSL	
0620F4AEC-04D-SO-DUP	J151-05	10/12/2017		Total Chromium	7440-47-3	10.1		0.117	0.0585	mg/kg	96.6	NMED SSL	
0620F4AEC-04D-SO-DUP	J151-05	10/12/2017		Mercury	7439-97-6	0.0513	J	0.0240	0.0120	mg/kg	20.7	NMED SSL	
0620F-4AEC05-0.0-0.5D-SO (Excavated)	B104-06	2/9/2016	0-0.5	Arsenic	7440-38-2	2.81		0.420	0.210	mg/kg	7.07	NMED SSL	
0620F-4AEC05-0.0-0.5D-SO (Excavated)	B104-06	2/9/2016	0-0.5	Barium	7440-39-3	294		0.210	0.105	mg/kg	4390	NMED SSL	
0620F-4AEC05-0.0-0.5D-SO (Excavated)	B104-06	2/9/2016	0-0.5	Cadmium	7440-43-9	0.127	J	0.210	0.105	mg/kg	70.5	NMED SSL	
0620F-4AEC05-0.0-0.5D-SO (Excavated)	B104-06	2/9/2016	0-0.5	Lead	7439-92-1	28.4		0.315	0.158	mg/kg	200	EPA RSL	
0620F-4AEC05-0.0-0.5D-SO (Excavated)	B104-06	2/9/2016	0-0.5	Selenium	7782-49-2	0.462	J	0.525	0.284	mg/kg	391	NMED SSL	
0620F-4AEC05-0.0-0.5D-SO (Excavated)	B104-06	2/9/2016	0-0.5	Total Chromium	7440-47-3	9.76		0.315	0.158	mg/kg	96.6	NMED SSL	
0620F4AEC-05D-SO	J151-06	10/12/2017		Arsenic	7440-38-2	**8.77**		0.128	0.0639	mg/kg	7.07	NMED SSL	**YES**
0620F4AEC-05D-SO	J151-06	10/12/2017		Barium	7440-39-3	248		0.128	0.0919	mg/kg	4390	NMED SSL	
0620F4AEC-05D-SO	J151-06	10/12/2017		Cadmium	7440-43-9	0.957		0.128	0.0728	mg/kg	70.5	NMED SSL	
0620F4AEC-05D-SO	J151-06	10/12/2017		Lead	7439-92-1	70.6		0.128	0.0639	mg/kg	200	EPA RSL	
0620F4AEC-05D-SO	J151-06	10/12/2017		Selenium	7782-49-2	4.67		0.128	0.0639	mg/kg	391	NMED SSL	
0620F4AEC-05D-SO	J151-06	10/12/2017		Silver	7440-22-4	0.214	J	0.128	0.0639	mg/kg	391	NMED SSL	
0620F4AEC-05D-SO	J151-06	10/12/2017		Total Chromium	7440-47-3	18.3		0.128	0.0639	mg/kg	96.6	NMED SSL	
0620F4AEC-05D-SO	J151-06	10/12/2017		Mercury	7439-97-6	0.303		0.0256	0.0128	mg/kg	20.7	NMED SSL	
0620F-4AEC06-0.0-0.5D-SO	B104-07	2/9/2016	0-0.5	Barium	7440-39-3	124	J	0.197	0.0985	mg/kg	4390	NMED SSL	
0620F-4AEC06-0.0-0.5D-SO	B104-07	2/9/2016	0-0.5	Lead	7439-92-1	6.03		0.296	0.148	mg/kg	200	EPA RSL	
0620F-4AEC06-0.0-0.5D-SO	B104-07	2/9/2016	0-0.5	Selenium	7782-49-2	1.28		0.493	0.266	mg/kg	391	NMED SSL	
0620F-4AEC06-0.0-0.5D-SO	B104-07	2/9/2016	0-0.5	Total Chromium	7440-47-3	6.89		0.296	0.148	mg/kg	96.6	NMED SSL	

Table B.5-7 Parcel 6 SWMU 20 (Feature 4) Excavation Confirmation Sampling Results (detections only), Method 6010C/6020A/7471B Metals

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0620F4AEC-06D-SO	J151-07	10/12/2017		Arsenic	7440-38-2	3.05		0.108	0.0538	mg/kg	7.07	NMED SSL	
0620F4AEC-06D-SO	J151-07	10/12/2017		Barium	7440-39-3	386		0.108	0.0775	mg/kg	4390	NMED SSL	
0620F4AEC-06D-SO	J151-07	10/12/2017		Cadmium	7440-43-9	0.238	J	0.108	0.0614	mg/kg	70.5	NMED SSL	
0620F4AEC-06D-SO	J151-07	10/12/2017		Lead	7439-92-1	15.6		0.108	0.0538	mg/kg	200	EPA RSL	
0620F4AEC-06D-SO	J151-07	10/12/2017		Selenium	7782-49-2	0.189	J	0.108	0.0538	mg/kg	391	NMED SSL	
0620F4AEC-06D-SO	J151-07	10/12/2017		Total Chromium	7440-47-3	10.9		0.108	0.0538	mg/kg	96.6	NMED SSL	
0620F4AEC-06D-SO	J151-07	10/12/2017		Mercury	7439-97-6	0.0134	U	0.0220	0.0110	mg/kg	20.7	NMED SSL	
0620F-4AEC07-0.0-0.5D-SO	B104-08	2/9/2016	0-0.5	Arsenic	7440-38-2	1.74		0.402	0.201	mg/kg	7.07	NMED SSL	
0620F-4AEC07-0.0-0.5D-SO	B104-08	2/9/2016	0-0.5	Barium	7440-39-3	173		0.201	0.101	mg/kg	4390	NMED SSL	
0620F-4AEC07-0.0-0.5D-SO	B104-08	2/9/2016	0-0.5	Lead	7439-92-1	8.45		0.302	0.151	mg/kg	200	EPA RSL	
0620F-4AEC07-0.0-0.5D-SO	B104-08	2/9/2016	0-0.5	Selenium	7782-49-2	0.345	J	0.503	0.271	mg/kg	391	NMED SSL	
0620F-4AEC07-0.0-0.5D-SO	B104-08	2/9/2016	0-0.5	Total Chromium	7440-47-3	7.5		0.302	0.151	mg/kg	96.6	NMED SSL	
0620F-4AEC07-0.0-0.5D-SO	B104-08	2/9/2016	0-0.5	Mercury	7439-97-6	0.0328	J	0.021	0.011	mg/kg	20.7	NMED SSL	
0620F4AEC-07D-SO	J151-08	10/12/2017		Arsenic	7440-38-2	3.31		0.114	0.0568	mg/kg	7.07	NMED SSL	
0620F4AEC-07D-SO	J151-08	10/12/2017		Barium	7440-39-3	213		0.114	0.0818	mg/kg	4390	NMED SSL	
0620F4AEC-07D-SO	J151-08	10/12/2017		Cadmium	7440-43-9	0.224	J	0.114	0.0648	mg/kg	70.5	NMED SSL	
0620F4AEC-07D-SO	J151-08	10/12/2017		Lead	7439-92-1	14.6		0.114	0.0568	mg/kg	200	EPA RSL	
0620F4AEC-07D-SO	J151-08	10/12/2017		Selenium	7782-49-2	0.247	J	0.114	0.0568	mg/kg	391	NMED SSL	
0620F4AEC-07D-SO	J151-08	10/12/2017		Total Chromium	7440-47-3	8.17		0.114	0.0568	mg/kg	96.6	NMED SSL	
0620F4AEC-07D-SO	J151-08	10/12/2017		Mercury	7439-97-6	0.0248	U	0.0223	0.0112	mg/kg	20.7	NMED SSL	
0620F-4AEC08-0.0-0.5D-DUP (Excavated)	B104-09	2/9/2016	0-0.5	Arsenic	7440-38-2	2.83		0.438	0.219	mg/kg	7.07	NMED SSL	
0620F-4AEC08-0.0-0.5D-DUP (Excavated)	B104-09	2/9/2016	0-0.5	Barium	7440-39-3	249		0.219	0.110	mg/kg	4390	NMED SSL	
0620F-4AEC08-0.0-0.5D-DUP (Excavated)	B104-09	2/9/2016	0-0.5	Lead	7439-92-1	18.7		0.329	0.164	mg/kg	200	EPA RSL	
0620F-4AEC08-0.0-0.5D-DUP (Excavated)	B104-09	2/9/2016	0-0.5	Selenium	7782-49-2	0.464	J	0.548	0.296	mg/kg	391	NMED SSL	
0620F-4AEC08-0.0-0.5D-DUP (Excavated)	B104-09	2/9/2016	0-0.5	Total Chromium	7440-47-3	9.94		0.329	0.164	mg/kg	96.6	NMED SSL	
0620F-4AEC08-0.0-0.5D-SO (Excavated)	B104-10	2/9/2016	0-0.5	Arsenic	7440-38-2	2.74		0.429	0.214	mg/kg	7.07	NMED SSL	
0620F-4AEC08-0.0-0.5D-SO (Excavated)	B104-10	2/9/2016	0-0.5	Barium	7440-39-3	246		0.214	0.107	mg/kg	4390	NMED SSL	
0620F-4AEC08-0.0-0.5D-SO (Excavated)	B104-10	2/9/2016	0-0.5	Lead	7439-92-1	19.6		0.322	0.161	mg/kg	200	EPA RSL	

Table B.5-7 Parcel 6 SWMU 20 (Feature 4) Excavation Confirmation Sampling Results (detections only), Method 6010C/6020A/7471B Metals

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0620F-4AEC08-0.0-0.5D-SO (Excavated)	B104-10	2/9/2016	0-0.5	Selenium	7782-49-2	0.739	J	0.536	0.289	mg/kg	391	NMED SSL	
0620F-4AEC08-0.0-0.5D-SO (Excavated)	B104-10	2/9/2016	0-0.5	Total Chromium	7440-47-3	9.47		0.322	0.161	mg/kg	96.6	NMED SSL	
0620F4AEC-08D-SO	J151-09	10/12/2017		Arsenic	7440-38-2	1.78		0.109	0.0547	mg/kg	7.07	NMED SSL	
0620F4AEC-08D-SO	J151-09	10/12/2017		Barium	7440-39-3	194		0.109	0.0788	mg/kg	4390	NMED SSL	
0620F4AEC-08D-SO	J151-09	10/12/2017		Cadmium	7440-43-9	0.152	J	0.109	0.0624	mg/kg	70.5	NMED SSL	
0620F4AEC-08D-SO	J151-09	10/12/2017		Lead	7439-92-1	8.77		0.109	0.0547	mg/kg	200	EPA RSL	
0620F4AEC-08D-SO	J151-09	10/12/2017		Selenium	7782-49-2	0.101	J	0.109	0.0547	mg/kg	391	NMED SSL	
0620F4AEC-08D-SO	J151-09	10/12/2017		Total Chromium	7440-47-3	11.5		0.109	0.0547	mg/kg	96.6	NMED SSL	
0620F4AEC-08D-SO	J151-09	10/12/2017		Mercury	7439-97-6	0.0171	U	0.0218	0.0109	mg/kg	20.7	NMED SSL	
0620F-4AEC09-0.0-0.5D-SO	B104-11	2/9/2016	0-0.5	Arsenic	7440-38-2	1.9		0.397	0.198	mg/kg	7.07	NMED SSL	
0620F-4AEC09-0.0-0.5D-SO	B104-11	2/9/2016	0-0.5	Barium	7440-39-3	183		0.198	0.0992	mg/kg	4390	NMED SSL	
0620F-4AEC09-0.0-0.5D-SO	B104-11	2/9/2016	0-0.5	Cadmium	7440-43-9	0.163	J	0.198	0.0992	mg/kg	70.5	NMED SSL	
0620F-4AEC09-0.0-0.5D-SO	B104-11	2/9/2016	0-0.5	Lead	7439-92-1	21.2		0.298	0.149	mg/kg	200	EPA RSL	
0620F-4AEC09-0.0-0.5D-SO	B104-11	2/9/2016	0-0.5	Selenium	7782-49-2	0.481	J	0.496	0.268	mg/kg	391	NMED SSL	
0620F-4AEC09-0.0-0.5D-SO	B104-11	2/9/2016	0-0.5	Total Chromium	7440-47-3	7.64		0.298	0.149	mg/kg	96.6	NMED SSL	
0620F-4AEC09-0.0-0.5D-SO-DUP	B104-12	2/9/2016	0-0.5	Arsenic	7440-38-2	1.69		0.412	0.206	mg/kg	7.07	NMED SSL	
0620F-4AEC09-0.0-0.5D-SO-DUP	B104-12	2/9/2016	0-0.5	Barium	7440-39-3	166		0.206	0.103	mg/kg	4390	NMED SSL	
0620F-4AEC09-0.0-0.5D-SO-DUP	B104-12	2/9/2016	0-0.5	Lead	7439-92-1	13.4		0.309	0.155	mg/kg	200	EPA RSL	
0620F-4AEC09-0.0-0.5D-SO-DUP	B104-12	2/9/2016	0-0.5	Selenium	7782-49-2	0.315	J	0.515	0.278	mg/kg	391	NMED SSL	
0620F-4AEC09-0.0-0.5D-SO-DUP	B104-12	2/9/2016	0-0.5	Total Chromium	7440-47-3	6.85		0.309	0.155	mg/kg	96.6	NMED SSL	
0620F4AEC-09D-SO	J151-10	10/12/2017		Arsenic	7440-38-2	1.64		0.110	0.0550	mg/kg	7.07	NMED SSL	
0620F4AEC-09D-SO	J151-10	10/12/2017		Barium	7440-39-3	142		0.110	0.0792	mg/kg	4390	NMED SSL	
0620F4AEC-09D-SO	J151-10	10/12/2017		Cadmium	7440-43-9	0.127	J	0.110	0.0627	mg/kg	70.5	NMED SSL	
0620F4AEC-09D-SO	J151-10	10/12/2017		Lead	7439-92-1	7.84		0.110	0.0550	mg/kg	200	EPA RSL	
0620F4AEC-09D-SO	J151-10	10/12/2017		Selenium	7782-49-2	0.105	J	0.110	0.0550	mg/kg	391	NMED SSL	
0620F4AEC-09D-SO	J151-10	10/12/2017		Total Chromium	7440-47-3	5.78		0.110	0.0550	mg/kg	96.6	NMED SSL	
0620F4AEC-09D-SO	J151-10	10/12/2017		Mercury	7439-97-6	0.0259	U	0.0216	0.0108	mg/kg	20.7	NMED SSL	
0620F4AEC10-0.0-0.5D-SO	J152-01	10/12/2017	0-0.5	Arsenic	7440-38-2	1.71		0.107	0.0537	mg/kg	7.07	NMED SSL	
0620F4AEC10-0.0-0.5D-SO	J152-01	10/12/2017	0-0.5	Barium	7440-39-3	157		0.107	0.0773	mg/kg	4390	NMED SSL	

Table B.5-7 Parcel 6 SWMU 20 (Feature 4) Excavation Confirmation Sampling Results (detections only), Method 6010C/6020A/7471B Metals

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0620F4AEC10-0.0-0.5D-SO	J152-01	10/12/2017	0-0.5	Cadmium	7440-43-9	0.129	J	0.107	0.0612	mg/kg	70.5	NMED SSL	
0620F4AEC10-0.0-0.5D-SO	J152-01	10/12/2017	0-0.5	Lead	7439-92-1	7.35		0.107	0.0537	mg/kg	200	EPA RSL	
0620F4AEC10-0.0-0.5D-SO	J152-01	10/12/2017	0-0.5	Selenium	7782-49-2	0.0965	J	0.107	0.0537	mg/kg	391	NMED SSL	
0620F4AEC10-0.0-0.5D-SO	J152-01	10/12/2017	0-0.5	Total Chromium	7440-47-3	6.58		0.107	0.0537	mg/kg	96.6	NMED SSL	
0620F4AEC-10D-SO	J151-11	10/12/2017		Arsenic	7440-38-2	2.32		0.108	0.0541	mg/kg	7.07	NMED SSL	
0620F4AEC-10D-SO	J151-11	10/12/2017		Barium	7440-39-3	200		0.108	0.0780	mg/kg	4390	NMED SSL	
0620F4AEC-10D-SO	J151-11	10/12/2017		Cadmium	7440-43-9	0.234	J	0.108	0.0617	mg/kg	70.5	NMED SSL	
0620F4AEC-10D-SO	J151-11	10/12/2017		Lead	7439-92-1	14.7		0.108	0.0541	mg/kg	200	EPA RSL	
0620F4AEC-10D-SO	J151-11	10/12/2017		Selenium	7782-49-2	0.174	J	0.108	0.0541	mg/kg	391	NMED SSL	
0620F4AEC-10D-SO	J151-11	10/12/2017		Total Chromium	7440-47-3	7.58		0.108	0.0541	mg/kg	96.6	NMED SSL	
0620F4AEC-10D-SO	J151-11	10/12/2017		Mercury	7439-97-6	0.0316	U	0.0213	0.0106	mg/kg	20.7	NMED SSL	
0620F4AEC11-0.0-0.5D-SO	J152-02	10/12/2017	0-0.5	Arsenic	7440-38-2	3.11		0.106	0.0532	mg/kg	7.07	NMED SSL	
0620F4AEC11-0.0-0.5D-SO	J152-02	10/12/2017	0-0.5	Barium	7440-39-3	359		0.106	0.0766	mg/kg	4390	NMED SSL	
0620F4AEC11-0.0-0.5D-SO	J152-02	10/12/2017	0-0.5	Cadmium	7440-43-9	0.208	J	0.106	0.0606	mg/kg	70.5	NMED SSL	
0620F4AEC11-0.0-0.5D-SO	J152-02	10/12/2017	0-0.5	Lead	7439-92-1	16.9		0.106	0.0532	mg/kg	200	EPA RSL	
0620F4AEC11-0.0-0.5D-SO	J152-02	10/12/2017	0-0.5	Selenium	7782-49-2	0.184	J	0.106	0.0532	mg/kg	391	NMED SSL	
0620F4AEC11-0.0-0.5D-SO	J152-02	10/12/2017	0-0.5	Total Chromium	7440-47-3	9.17		0.106	0.0532	mg/kg	96.6	NMED SSL	
0620F4AEC11-0.0-0.5D-SO	J152-02	10/12/2017	0-0.5	Mercury	7439-97-6	0.0256	J	0.0218	0.0109	mg/kg	20.7	NMED SSL	
0620F4AEC-11D-SO	J151-12	10/12/2017		Arsenic	7440-38-2	2		0.109	0.0545	mg/kg	7.07	NMED SSL	
0620F4AEC-11D-SO	J151-12	10/12/2017		Barium	7440-39-3	223		0.109	0.0784	mg/kg	4390	NMED SSL	
0620F4AEC-11D-SO	J151-12	10/12/2017		Cadmium	7440-43-9	0.148	J	0.109	0.0621	mg/kg	70.5	NMED SSL	
0620F4AEC-11D-SO	J151-12	10/12/2017		Lead	7439-92-1	9.97		0.109	0.0545	mg/kg	200	EPA RSL	
0620F4AEC-11D-SO	J151-12	10/12/2017		Selenium	7782-49-2	0.121	J	0.109	0.0545	mg/kg	391	NMED SSL	
0620F4AEC-11D-SO	J151-12	10/12/2017		Total Chromium	7440-47-3	6.84		0.109	0.0545	mg/kg	96.6	NMED SSL	
0620F4AEC-11D-SO	J151-12	10/12/2017		Mercury	7439-97-6	0.0173	U	0.0208	0.0104	mg/kg	20.7	NMED SSL	
0620F4AEC12-0.0-0.5D-SO	J152-03	10/12/2017	0-0.5	Arsenic	7440-38-2	1.34		0.106	0.0532	mg/kg	7.07	NMED SSL	
0620F4AEC12-0.0-0.5D-SO	J152-03	10/12/2017	0-0.5	Barium	7440-39-3	142		0.106	0.0766	mg/kg	4390	NMED SSL	
0620F4AEC12-0.0-0.5D-SO	J152-03	10/12/2017	0-0.5	Cadmium	7440-43-9	0.0794	J	0.106	0.0606	mg/kg	70.5	NMED SSL	
0620F4AEC12-0.0-0.5D-SO	J152-03	10/12/2017	0-0.5	Lead	7439-92-1	4.77		0.106	0.0532	mg/kg	200	EPA RSL	

Table B.5-7 Parcel 6 SWMU 20 (Feature 4) Excavation Confirmation Sampling Results (detections only), Method 6010C/6020A/7471B Metals

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0620F4AEC12-0.0-0.5D-SO	J152-03	10/12/2017	0-0.5	Selenium	7782-49-2	0.0869	J	0.106	0.0532	mg/kg	391	NMED SSL	
0620F4AEC12-0.0-0.5D-SO	J152-03	10/12/2017	0-0.5	Total Chromium	7440-47-3	5.49		0.106	0.0532	mg/kg	96.6	NMED SSL	
0620F4AEC-12D-SO	J151-13	10/12/2017		Arsenic	7440-38-2	1.35		0.104	0.0520	mg/kg	7.07	NMED SSL	
0620F4AEC-12D-SO	J151-13	10/12/2017		Barium	7440-39-3	145		0.104	0.0749	mg/kg	4390	NMED SSL	
0620F4AEC-12D-SO	J151-13	10/12/2017		Cadmium	7440-43-9	0.0858	J	0.104	0.0593	mg/kg	70.5	NMED SSL	
0620F4AEC-12D-SO	J151-13	10/12/2017		Lead	7439-92-1	5.19		0.104	0.0520	mg/kg	200	EPA RSL	
0620F4AEC-12D-SO	J151-13	10/12/2017		Selenium	7782-49-2	0.103	J	0.104	0.0520	mg/kg	391	NMED SSL	
0620F4AEC-12D-SO	J151-13	10/12/2017		Total Chromium	7440-47-3	4.08		0.104	0.0520	mg/kg	96.6	NMED SSL	
0620F4AEC-12D-SO	J151-13	10/12/2017		Mercury	7439-97-6	0.0156	U	0.0206	0.0103	mg/kg	20.7	NMED SSL	
0620F4AEC13-0.0-0.5D-SO	J152-04	10/12/2017	0-0.5	Arsenic	7440-38-2	1.15		0.105	0.0525	mg/kg	7.07	NMED SSL	
0620F4AEC13-0.0-0.5D-SO	J152-04	10/12/2017	0-0.5	Barium	7440-39-3	179		0.105	0.0757	mg/kg	4390	NMED SSL	
0620F4AEC13-0.0-0.5D-SO	J152-04	10/12/2017	0-0.5	Cadmium	7440-43-9	0.0773	J	0.105	0.0599	mg/kg	70.5	NMED SSL	
0620F4AEC13-0.0-0.5D-SO	J152-04	10/12/2017	0-0.5	Lead	7439-92-1	4.43		0.105	0.0525	mg/kg	200	EPA RSL	
0620F4AEC13-0.0-0.5D-SO	J152-04	10/12/2017	0-0.5	Selenium	7782-49-2	0.0534	J	0.105	0.0525	mg/kg	391	NMED SSL	
0620F4AEC13-0.0-0.5D-SO	J152-04	10/12/2017	0-0.5	Total Chromium	7440-47-3	5.48		0.105	0.0525	mg/kg	96.6	NMED SSL	
0620F4AEC-13D-SO	J151-14	10/12/2017		Arsenic	7440-38-2	1.2		0.102	0.0512	mg/kg	7.07	NMED SSL	
0620F4AEC-13D-SO	J151-14	10/12/2017		Barium	7440-39-3	159		0.102	0.0738	mg/kg	4390	NMED SSL	
0620F4AEC-13D-SO	J151-14	10/12/2017		Cadmium	7440-43-9	0.0719	J	0.102	0.0584	mg/kg	70.5	NMED SSL	
0620F4AEC-13D-SO	J151-14	10/12/2017		Lead	7439-92-1	4.81		0.102	0.0512	mg/kg	200	EPA RSL	
0620F4AEC-13D-SO	J151-14	10/12/2017		Selenium	7782-49-2	0.0604	J	0.102	0.0512	mg/kg	391	NMED SSL	
0620F4AEC-13D-SO	J151-14	10/12/2017		Total Chromium	7440-47-3	3.94	J	0.102	0.0512	mg/kg	96.6	NMED SSL	
0620F4AEC14-0.0-0.5D-SO	J152-05	10/12/2017	0-0.5	Arsenic	7440-38-2	1.47		0.109	0.0545	mg/kg	7.07	NMED SSL	
0620F4AEC14-0.0-0.5D-SO	J152-05	10/12/2017	0-0.5	Barium	7440-39-3	170		0.109	0.0785	mg/kg	4390	NMED SSL	
0620F4AEC14-0.0-0.5D-SO	J152-05	10/12/2017	0-0.5	Cadmium	7440-43-9	0.0932	J	0.109	0.0622	mg/kg	70.5	NMED SSL	
0620F4AEC14-0.0-0.5D-SO	J152-05	10/12/2017	0-0.5	Lead	7439-92-1	5.83		0.109	0.0545	mg/kg	200	EPA RSL	
0620F4AEC14-0.0-0.5D-SO	J152-05	10/12/2017	0-0.5	Selenium	7782-49-2	0.1	J	0.109	0.0545	mg/kg	391	NMED SSL	
0620F4AEC14-0.0-0.5D-SO	J152-05	10/12/2017	0-0.5	Total Chromium	7440-47-3	7.31		0.109	0.0545	mg/kg	96.6	NMED SSL	
0620F4AEC-14D-SO	J151-15	10/12/2017		Arsenic	7440-38-2	1.55		0.104	0.0522	mg/kg	7.07	NMED SSL	
0620F4AEC-14D-SO	J151-15	10/12/2017		Barium	7440-39-3	162		0.104	0.0752	mg/kg	4390	NMED SSL	

Table B.5-7 Parcel 6 SWMU 20 (Feature 4) Excavation Confirmation Sampling Results (detections only), Method 6010C/6020A/7471B Metals

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0620F4AEC-14D-SO	J151-15	10/12/2017		Cadmium	7440-43-9	0.11	J	0.104	0.0595	mg/kg	70.5	NMED SSL	
0620F4AEC-14D-SO	J151-15	10/12/2017		Lead	7439-92-1	6.83		0.104	0.0522	mg/kg	200	EPA RSL	
0620F4AEC-14D-SO	J151-15	10/12/2017		Selenium	7782-49-2	0.317	J	0.104	0.0522	mg/kg	391	NMED SSL	
0620F4AEC-14D-SO	J151-15	10/12/2017		Total Chromium	7440-47-3	5.2		0.104	0.0522	mg/kg	96.6	NMED SSL	
0620F4AEC-14D-SO	J151-15	10/12/2017		Mercury	7439-97-6	0.0113	U	0.0205	0.0103	mg/kg	20.7	NMED SSL	
0620F4AEC-14D-SO-DUP	J151-16	10/12/2017		Arsenic	7440-38-2	1.44		0.104	0.0518	mg/kg	7.07	NMED SSL	
0620F4AEC-14D-SO-DUP	J151-16	10/12/2017		Barium	7440-39-3	153		0.104	0.0747	mg/kg	4390	NMED SSL	
0620F4AEC-14D-SO-DUP	J151-16	10/12/2017		Cadmium	7440-43-9	0.101	J	0.104	0.0591	mg/kg	70.5	NMED SSL	
0620F4AEC-14D-SO-DUP	J151-16	10/12/2017		Lead	7439-92-1	6.06		0.104	0.0518	mg/kg	200	EPA RSL	
0620F4AEC-14D-SO-DUP	J151-16	10/12/2017		Selenium	7782-49-2	0.311	J	0.104	0.0518	mg/kg	391	NMED SSL	
0620F4AEC-14D-SO-DUP	J151-16	10/12/2017		Total Chromium	7440-47-3	4.87		0.104	0.0518	mg/kg	96.6	NMED SSL	
0620F4AEC15-0.0-0.5D-SO	J152-06	10/12/2017	0-0.5	Arsenic	7440-38-2	1.24		0.102	0.0510	mg/kg	7.07	NMED SSL	
0620F4AEC15-0.0-0.5D-SO	J152-06	10/12/2017	0-0.5	Barium	7440-39-3	137		0.102	0.0735	mg/kg	4390	NMED SSL	
0620F4AEC15-0.0-0.5D-SO	J152-06	10/12/2017	0-0.5	Cadmium	7440-43-9	0.0906	J	0.102	0.0581	mg/kg	70.5	NMED SSL	
0620F4AEC15-0.0-0.5D-SO	J152-06	10/12/2017	0-0.5	Lead	7439-92-1	4.81		0.102	0.0510	mg/kg	200	EPA RSL	
0620F4AEC15-0.0-0.5D-SO	J152-06	10/12/2017	0-0.5	Selenium	7782-49-2	0.116	J	0.102	0.0510	mg/kg	391	NMED SSL	
0620F4AEC15-0.0-0.5D-SO	J152-06	10/12/2017	0-0.5	Total Chromium	7440-47-3	5.9		0.102	0.0510	mg/kg	96.6	NMED SSL	
0620F4AEC15-0.0-0.5D-SO	J152-06	10/12/2017	0-0.5	Mercury	7439-97-6	0.0105	J	0.0210	0.0105	mg/kg	20.7	NMED SSL	
0620F4AEC15-0.0-0.5D-SO-DUP	J152-07	10/12/2017	0-0.5	Arsenic	7440-38-2	1.32		0.105	0.0525	mg/kg	7.07	NMED SSL	
0620F4AEC15-0.0-0.5D-SO-DUP	J152-07	10/12/2017	0-0.5	Barium	7440-39-3	152		0.105	0.0756	mg/kg	4390	NMED SSL	
0620F4AEC15-0.0-0.5D-SO-DUP	J152-07	10/12/2017	0-0.5	Cadmium	7440-43-9	0.0861	J	0.105	0.0599	mg/kg	70.5	NMED SSL	
0620F4AEC15-0.0-0.5D-SO-DUP	J152-07	10/12/2017	0-0.5	Lead	7439-92-1	4.99		0.105	0.0525	mg/kg	200	EPA RSL	
0620F4AEC15-0.0-0.5D-SO-DUP	J152-07	10/12/2017	0-0.5	Selenium	7782-49-2	0.11	J	0.105	0.0525	mg/kg	391	NMED SSL	
0620F4AEC15-0.0-0.5D-SO-DUP	J152-07	10/12/2017	0-0.5	Total Chromium	7440-47-3	6.18		0.105	0.0525	mg/kg	96.6	NMED SSL	
0620F4AEC15-0.0-0.5D-SO-DUP	J152-07	10/12/2017	0-0.5	Mercury	7439-97-6	0.0137	J	0.0201	0.0100	mg/kg	20.7	NMED SSL	

Notes:

CAS	Chemical Abstracts Service
DC	Direct Contact
DL	Detection Limit
DUP	Duplicate
EPA	Environmental Protection Agency
HH	Human Health
ID	Identification
LOD	Limit of Detection
LOQ	Limit of Quantiation
mg/kg	milligrams per kilogram
NMED	New Mexico Environment Department
NS	No Standard
RCRA	Resource Conservation and Recovery Act
RSL	Regional Screening Level
SSL	Soil Screening Level
SWMU	Soil Waste Management Unit

Lab Qualifier Codes:

Organics

J	Indicates that the analyte is positively identified and the result is less than the LOQ but greater than the DL.
U	Not detected at the LOD

Validation Qualifier Codes:

J	The analyte was positively identified; the associated numerical value is the approximate concentration
U	Not detected at or above the LOD.

Sample ID nomenclature:

Sample ID's consist of a combination of Parcel, AOC, additional site identifier, purpose of sample, increment number, sample depth, sample type, and matrix.

Example: 0608B537AEC-0.0-0.5D-SO
Parcel: 06
SWMU: 08

Additional Site Identifier: B537 (in this case it's Building 537)
Source of Sample: A (in this case it's Building 537 Area A)
Purpose of Sample: EC (excavation confirmation)
Sample Depth: Depth of samples will be designated with a 4-digit number, the first 2 digits starting depth, second 2 digits bottom depth (in this case 0.0 to 0.5 feet)
Sample Type: D (Discrete)
Sample Matrix: SO (soil) (in this case soil)
DUP = Field Duplicate (when applicable)

Screening level exceedances indicated by red result and a yellow highlighted "YES".

1. Excavated - Sample location was excavated during the Permittee-Initiated Interim Measure.

+ Screening Level Sources:

NMED SSL and EPA RSL	The HH DC Value selected is the lowest NMED Direct Contact Screening Level (for residents, industrial/occupational workers, and construction workers) via NMED Risk Assessment Guidance for Site Investigations and Remediation, November 2022 Revised. If there is no NMED Direct Contact Screening Level, the lowest EPA Residential RSL is selected for a target excess cancer risk level of 1 x 10-5 or target noncancer hazard quotient of 1.0 (November 2024). The most recent screening levels published by NMED and USEPA at the time the risk evaluation is conducted will be used in the risk evaluation.

Table B.5-8 Parcel 6 SWMU 20 (Feature 4) Excavation Confirmation Sampling Results (detections only), Method 8082 Polychlorinated Biphenyls

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0620F4AEC-07D-SO	J151-08	10/12/2017		PCB-1254	11097-69-1	0.22		0.02	0.00950	mg/kg	1.14	NMED SSL	
0620F4AEC-07D-SO	J151-08	10/12/2017		PCB-1260	11096-82-5	0.099		0.02	0.0110	mg/kg	2.43	NMED SSL	
0620F-4AEC09-0.0-0.5D-SO	B104-11	2/9/2016	0-0.5	PCB-1260	11096-82-5	0.013	J	0.018	0.011	mg/kg	2.43	NMED SSL	
0620F4AEC11-0.0-0.5D-SO	J152-02	10/12/2017	0-0.5	PCB-1268	11100-14-4	0.078		0.019	0.00910	mg/kg	NS		

Notes:

CAS	Chemical Abstracts Service
DC	Direct Contact
DL	Detection Limit
DUP	Duplicate
EPA	Environmental Protection Agency
HH	Human Health
ID	Identification
LOD	Limit of Detection
LOQ	Limit of Quantiation
mg/kg	milligrams per kilogram
NMED	New Mexico Environment Department
NS	No Standard
RCRA	Resource Conservation and Recovery Act
RSL	Regional Screening Level
SSL	Soil Screening Level
SWMU	Soil Waste Management Unit

Lab Qualifier Codes:

Organics

J	Indicates that the analyte is positively identified and the result is less than the LOQ but greater than the DL.
U	Not detected at the LOD

Validation Qualifier Codes:

J	The analyte was positively identified; the associated numerical value is the approximate concentration
U	Not detected at or above the LOD.

Sample ID nomenclature:

Sample ID's consist of a combination of Parcel, AOC, additional site identifier, purpose of sample, increment number, sample depth, sample type, and matrix.

Example: 0608B537AEC-0.0-0.5D-SO
Parcel: 06
SWMU: 08

Additional Site Identifier: B537 (in this case it's Building 537)
Source of Sample: A (in this case it's Building 537 Area A)
Purpose of Sample: EC (excavation confirmation)
Sample Depth: Depth of samples will be designated with a 4-digit number, the first 2 digits starting depth, second 2 digits bottom depth (in this case 0.0 to 0.5 feet)
Sample Type: D (Discrete)
Sample Matrix: SO (soil) (in this case soil)
DUP = Field Duplicate (when applicable)

Screening level exceedances indicated by red result and a yellow highlighted "YES".

1. Excavated - Sample location was excavated during the Permittee-Initiated Interim Measure.

+ Scree ing Level Sources:

NMED SSL and EPA RSL	The HH DC Value selected is the lowest NMED Direct Contact Screening Level (for residents, industrial/occupational workers, and construction workers) via NMED Risk Assessment Guidance for Site Investigations and Remediation, November 2022 Revised. If there is no NMED Direct Contact Screening Level, the lowest EPA Residential RSL is selected for a target excess cancer risk level of 1 x 10-5 or target noncancer hazard quotient of 1.0 (November 2024). The most recent screening levels published by NMED and USEPA at the time the risk evaluation is conducted will be used in the risk evaluation.

Table B.6-1 Parcel 6 AOC 42: Sample Locations with Associated Sample Identifiers
Fort Wingate Depot Activity, Gallup, NM.

Sample ID	Northing (UTM)	Easting (UTM)	Date	Time
0642B-516-SS-1AM-SO	3932110.19	718402.33	5/14/2011	11:40
	3932108.79	718408.25	5/14/2011	11:40
	3932103.90	718400.67	5/14/2011	11:40
	3932100.93	718399.91	5/14/2011	11:40
	3932102.62	718406.59	5/14/2011	11:40
	3932099.81	718406.16	5/14/2011	11:40
	3932111.69	718408.81	5/14/2011	11:40
	3932112.38	718406.12	5/14/2011	11:40

[0]Northing and Easting values determined through surveyence with topcom bay station model

Local ID (identifier) qualifiers:

SO- Soil Sample

SS-Surface Sample

BM- Multi Incremental 1 ft. bgs

AM- Multi Incremental <1 ft. bgs

SB- Soil Boring

Table B.6-2 Parcel 6 AOC42: Method 6010B/7471A Metals Soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0642B-516-SS-1AM-SO	280-15932-14	5/14/2011	0-0.5	Arsenic	7440-38-2	3.2	J	2.3	0.62	mg/Kg	7.07	NMED SSL	
0642B-516-SS-1AM-SO	280-15932-14	5/14/2011	0-0.5	Barium	7440-39-3	310		1.9	0.071	mg/Kg	4390	NMED SSL	
0642B-516-SS-1AM-SO	280-15932-14	5/14/2011	0-0.5	Cadmium	7440-43-9	0.14	J	0.47	0.038	mg/Kg	70.5	NMED SSL	
0642B-516-SS-1AM-SO	280-15932-14	5/14/2011	0-0.5	Chromium	7440-47-3	10		3.3	0.054	mg/Kg	96.6	NMED SSL	
0642B-516-SS-1AM-SO	280-15932-14	5/14/2011	0-0.5	Lead	7439-92-1	16	J	0.84	0.25	mg/Kg	200	EPA RSL	
0642B-516-SS-1AM-SO	280-15932-14	5/14/2011	0-0.5	Mercury	7439-97-6	0.015	J	0.03	0.0051	mg/kg	20.7	NMED SSL	
0642B-516-SS-1BM-SO	280-15932-16	5/14/2011	0-0.5	Arsenic	7440-38-2	2.7	J	2.4	0.63	mg/Kg	7.07	NMED SSL	
0642B-516-SS-1BM-SO	280-15932-16	5/14/2011	0-0.5	Barium	7440-39-3	220		1.9	0.073	mg/Kg	4390	NMED SSL	
0642B-516-SS-1BM-SO	280-15932-16	5/14/2011	0-0.5	Cadmium	7440-43-9	0.1	J	0.48	0.039	mg/Kg	70.5	NMED SSL	
0642B-516-SS-1BM-SO	280-15932-16	5/14/2011	0-0.5	Chromium	7440-47-3	8.7		3.4	0.056	mg/Kg	96.6	NMED SSL	
0642B-516-SS-1BM-SO	280-15932-16	5/14/2011	0-0.5	Lead	7439-92-1	9.4	J	0.87	0.26	mg/Kg	200	EPA RSL	
0642B-516-SS-1BM-SO	280-15932-16	5/14/2011	0-0.5	Mercury	7439-97-6	0.017	J	0.032	0.0054	mg/kg	20.7	NMED SSL	

Notes:

CAS	Chemical Abstracts Service
DC	Direct Contact
DL	Detection Limit
DUP	Duplicate
EPA	Environmental Protection Agency
HH	Human Health
ID	Identification
LOD	Limit of Detection
LOQ	Limit of Quantiation
mg/kg	milligrams per kilogram
NMED	New Mexico Environment Department
NS	No Standard
RCRA	Resource Conservation and Recovery Act
RSL	Regional Screening Level
SSL	Soil Screening Level
SWMU	Soil Waste Management Unit

Lab Qualifier Codes:

Organics

J	Indicates that the analyte is positively identified and the result is less than the LOQ but greater than the DL.
U	Not detected at the LOD

Validation Qualifier Codes:

J	The analyte was positively identified; the associated numerical value is the approximate concentration
U	Not detected at or above the LOD.

Sample ID nomenclature:

Sample ID's consist of a combination of Parcel, AOC, additional site identifier, purpose of sample, increment number, sample depth, sample type, and matrix.

Example: 0608B537AEC-0.0-0.5D-SO
Parcel: 06
SWMU: 08

Additional Site Identifier: B537 (in this case it's Building 537)
Source of Sample: A (in this case it's Building 537 Area A)
Purpose of Sample: EC (excavation confirmation)
Sample Depth: Depth of samples will be designated with a 4-digit number, the first 2 digits starting depth, second 2 digits bottom depth (in this case 0.0 to 0.5 feet)
Sample Type: D (Discrete)
Sample Matrix: SO (soil) (in this case soil)
DUP = Field Duplicate (when applicable)

Screening level exceedances indicated by red result and a yellow highlighted "YES".

1. Excavated - Sample location was excavated during the Permittee-Initiated Interim Measure.

+ Screening Level Sources:

NMED SSL and EPA RSL	The HH DC Value selected is the lowest NMED Direct Contact Screening Level (for residents, industrial/occupational workers, and construction workers) via NMED Risk Assessment Guidance for Site Investigations and Remediation, November 2022 Revised. If there is no NMED Direct Contact Screening Level, the lowest EPA Residential RSL is selected for a target excess cancer risk level of 1 x 10-5 or target noncancer hazard quotient of 1.0 (November 2024). The most recent screening levels published by NMED and USEPA at the time the risk evaluation is conducted will be used in the risk evaluation.

Table B.7-1 Parcel 6 AOC 80: Sample Locations with Associated Sample Identifiers
Fort Wingate Depot Activity, Gallup NM.

Sample ID	Northing (UTM)	Easting (UTM)	Date	Time
0680-SS-1M-SO	3932085.11	716808.66	5/9/2011	13:20
	3932090.09	716838.80	5/9/2011	13:20
	3932060.21	716843.95	5/9/2011	13:20
	3932055.14	716813.90	5/9/2011	13:20
0680-SS-2M-SO	3932090.09	716838.80	5/9/2011	14:10
	3932095.16	716868.85	5/9/2011	14:10
	3932065.36	716873.91	5/9/2011	14:10
	3932060.21	716843.95	5/9/2011	14:10
0680-SS-3M-SO	3932065.36	716873.91	5/9/2011	15:50
	3932060.21	716843.95	5/9/2011	15:50
	3932030.33	716849.01	5/9/2011	15:50
	3932035.31	716879.07	5/9/2011	15:50
0680-SS-4M-SO	3932060.21	716843.95	5/9/2011	15:00
	3932055.14	716813.90	5/9/2011	15:00
	3932025.26	716819.05	5/9/2011	15:00
	3932030.33	716849.01	5/9/2011	15:00
0680-SS-5M-SO	3932101.93	716892.23	5/10/2011	8:40
	3932103.58	716922.62	5/10/2011	8:40
	3932073.20	716924.19	5/10/2011	8:40
	3932071.54	716893.72	5/10/2011	8:40
0680-SS-6M-SO	3932103.58	716922.62	5/10/2011	9:40
	3932105.07	716952.92	5/10/2011	9:40
	3932074.77	716954.49	5/10/2011	9:40
	3932073.20	716924.19	5/10/2011	9:40
0680-SS-7M-SO	3932074.77	716954.49	5/10/2011	10:20
	3932073.20	716924.19	5/10/2011	10:20
	3932042.73	716925.68	5/10/2011	10:20
	3932044.22	716955.90	5/10/2011	10:20
0680-SS-8M-SO	3932073.20	716924.19	5/10/2011	11:10
	3932071.54	716893.72	5/10/2011	11:10
	3932041.40	716895.29	5/10/2011	11:10
	3932042.73	716925.68	5/10/2011	11:10

Table B.7-1 Parcel 6 AOC 80: Sample Locations with Associated Sample Identifiers
Fort Wingate Depot Activity, Gallup NM.

Sample ID	Northing (UTM)	Easting (UTM)	Date	Time
0680-SS-9M-SO	3931984.41	716937.55	5/10/2011	12:30
	3931988.12	716967.59	5/10/2011	12:30
	3931958.08	716971.39	5/10/2011	12:30
	3931954.28	716941.35	5/10/2011	12:30
0680-SS-10M-SO	3931988.12	716967.59	5/10/2011	13:10
	3931991.83	716997.82	5/10/2011	13:10
	3931961.79	717001.62	5/10/2011	13:10
	3931958.08	716971.39	5/10/2011	13:10
0680-SS-11M-SO	3931961.79	717001.62	5/10/2011	14:10
	3931958.08	716971.39	5/10/2011	14:10
	3931927.95	716975.20	5/10/2011	14:10
	3931931.84	717005.24	5/10/2011	14:10
0680-SS-12M-SO	3931958.08	716971.39	5/10/2011	14:40
	3931954.28	716941.35	5/10/2011	14:40
	3931924.24	716945.06	5/10/2011	14:40
	3931927.95	716975.20	5/10/2011	14:40
0680-SS-13M-SO	3931921.87	716947.22	5/11/2011	12:10
	3931923.06	716977.56	5/11/2011	12:10
	3931892.64	716978.82	5/11/2011	12:10
	3931891.60	716948.33	5/11/2011	12:10
0680-SS-14M-SO	3931923.06	716977.56	5/11/2011	13:40
	3931923.95	717007.90	5/11/2011	13:40
	3931893.91	717009.16	5/11/2011	13:40
	3931892.64	716978.82	5/11/2011	13:40
0680-SS-15M-SO	3931893.91	717009.16	5/11/2011	9:40
	3931892.64	716978.82	5/11/2011	9:40
	3931862.23	716979.79	5/11/2011	9:40
	3931863.57	717010.20	5/11/2011	9:40
0680-SS-16M-SO	3931892.64	716978.82	5/11/2011	11:10
	3931891.60	716948.33	5/11/2011	11:10
	3931861.26	716949.52	5/11/2011	11:10
	3931862.23	716979.79	5/11/2011	11:10

Table B.7-1 Parcel 6 AOC 80: Sample Locations with Associated Sample Identifiers
Fort Wingate Depot Activity, Gallup NM.

Sample ID	Northing (UTM)	Easting (UTM)	Date	Time
0680-SS-17M-SO	3931914.48	716786.24	5/12/2011	13:10
	3931913.73	716816.44	5/12/2011	13:10
	3931883.54	716815.77	5/12/2011	13:10
	3931884.20	716785.41	5/12/2011	13:10
0680-SS-18M-SO	3931913.73	716816.44	5/13/2011	14:30
	3931913.06	716846.71	5/13/2011	14:30
	3931882.87	716846.38	5/13/2011	14:30
	3931883.54	716815.77	5/13/2011	14:30
0680-SS-19M-SO	3931882.87	716846.38	5/14/2011	8:50
	3931883.54	716815.77	5/14/2011	8:50
	3931853.09	716815.10	5/14/2011	8:50
	3931852.59	716845.47	5/14/2011	8:50
0680-SS-20M-SO	3931883.54	716815.77	5/13/2011	13:50
	3931884.20	716785.41	5/13/2011	13:50
	3931853.76	716784.66	5/13/2011	13:50
	3931853.09	716815.10	5/13/2011	13:50
0680-SS-21M-SO	3931917.13	716715.85	5/11/2011	15:50
	3931915.92	716746.14	5/11/2011	15:50
	3931885.55	716744.85	5/11/2011	15:50
	3931886.84	716714.48	5/11/2011	15:50
0680-SS-22M-SO	3931915.92	716746.14	5/12/2011	9:00
	3931914.55	716776.59	5/12/2011	9:00
	3931884.18	716775.22	5/12/2011	9:00
	3931885.55	716744.85	5/12/2011	9:00
0680-SS-23M-SO	3931884.18	716775.22	5/12/2011	11:10
	3931885.55	716744.85	5/12/2011	11:10
	3931855.10	716743.48	5/12/2011	11:10
	3931854.05	716773.93	5/12/2011	11:10
0680-SS-24M-SO	3931885.55	716744.85	5/12/2011	10:00
	3931886.84	716714.48	5/12/2011	10:00
	3931856.55	716713.11	5/12/2011	10:00
	3931855.10	716743.48	5/12/2011	10:00

Table B.7-1 Parcel 6 AOC 80: Sample Locations with Associated Sample Identifiers
Fort Wingate Depot Activity, Gallup NM.

Sample ID	Northing (UTM)	Easting (UTM)	Date	Time

[0]Northing and Easting values determined through surveyence with topcom bay station model

Local ID (identifier) qualifiers:

SO- Soil Sample

SS-Surface Sample

BM- Multi Incremental 1 ft. bgs

AM- Multi Incremental <1 ft. bgs

SB- Soil Boring

Table B.7-2 Parcel 6 AOC80: Method 6010B/7471A Metals soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0680-SS-10AM-SO	280-15708-34	5/10/2011	0-0.5	Arsenic	7440-38-2	2.2	J	2.3	0.61	mg/Kg	7.07	NMED SSL	
0680-SS-10AM-SO	280-15708-34	5/10/2011	0-0.5	Barium	7440-39-3	63		1.8	0.07	mg/Kg	4390	NMED SSL	
0680-SS-10AM-SO	280-15708-34	5/10/2011	0-0.5	Cadmium	7440-43-9	0.1	J	0.46	0.038	mg/Kg	70.5	NMED SSL	
0680-SS-10AM-SO	280-15708-34	5/10/2011	0-0.5	Chromium	7440-47-3	3.1	J	3.2	0.053	mg/Kg	96.6	NMED SSL	
0680-SS-10AM-SO	280-15708-34	5/10/2011	0-0.5	Lead	7439-92-1	6.2		0.83	0.25	mg/Kg	200	EPA RSL	
0680-SS-10AM-SO	280-15708-34	5/10/2011	0-0.5	Mercury	7439-97-6	0.018	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-10BM-SO	280-15708-35	5/10/2011	0-0.5	Arsenic	7440-38-2	3.1	J	2.5	0.65	mg/Kg	7.07	NMED SSL	
0680-SS-10BM-SO	280-15708-35	5/10/2011	0-0.5	Barium	7440-39-3	92		2	0.075	mg/Kg	4390	NMED SSL	
0680-SS-10BM-SO	280-15708-35	5/10/2011	0-0.5	Cadmium	7440-43-9	0.092	J	0.49	0.04	mg/Kg	70.5	NMED SSL	
0680-SS-10BM-SO	280-15708-35	5/10/2011	0-0.5	Chromium	7440-47-3	4.9		3.5	0.057	mg/Kg	96.6	NMED SSL	
0680-SS-10BM-SO	280-15708-35	5/10/2011	0-0.5	Lead	7439-92-1	7.3		0.89	0.27	mg/Kg	200	EPA RSL	
0680-SS-10BM-SO	280-15708-35	5/10/2011	0-0.5	Mercury	7439-97-6	0.022	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-11AM-SO	280-15708-9	5/10/2011	0-0.5	Arsenic	7440-38-2	3.3		2.4	0.63	mg/Kg	7.07	NMED SSL	
0680-SS-11AM-SO	280-15708-9	5/10/2011	0-0.5	Barium	7440-39-3	110		1.9	0.072	mg/Kg	4390	NMED SSL	
0680-SS-11AM-SO	280-15708-9	5/10/2011	0-0.5	Cadmium	7440-43-9	0.12	J	0.48	0.039	mg/Kg	70.5	NMED SSL	
0680-SS-11AM-SO	280-15708-9	5/10/2011	0-0.5	Chromium	7440-47-3	5.4		3.3	0.055	mg/Kg	96.6	NMED SSL	
0680-SS-11AM-SO	280-15708-9	5/10/2011	0-0.5	Lead	7439-92-1	8.5		0.86	0.26	mg/Kg	200	EPA RSL	
0680-SS-11AM-SO	280-15708-9	5/10/2011	0-0.5	Mercury	7439-97-6	0.033		0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-11BM-SO	280-15708-10	5/10/2011	0-0.5	Arsenic	7440-38-2	2.9		2.4	0.63	mg/Kg	7.07	NMED SSL	
0680-SS-11BM-SO	280-15708-10	5/10/2011	0-0.5	Barium	7440-39-3	100		1.9	0.073	mg/Kg	4390	NMED SSL	
0680-SS-11BM-SO	280-15708-10	5/10/2011	0-0.5	Cadmium	7440-43-9	0.089	J	0.48	0.039	mg/Kg	70.5	NMED SSL	
0680-SS-11BM-SO	280-15708-10	5/10/2011	0-0.5	Chromium	7440-47-3	5.5		3.4	0.056	mg/Kg	96.6	NMED SSL	
0680-SS-11BM-SO	280-15708-10	5/10/2011	0-0.5	Lead	7439-92-1	7.2		0.86	0.26	mg/Kg	200	EPA RSL	
0680-SS-11BM-SO	280-15708-10	5/10/2011	0-0.5	Mercury	7439-97-6	0.024	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-12AM-SO	280-15708-17	5/10/2011	0-0.5	Arsenic	7440-38-2	2.8		2.5	0.65	mg/Kg	7.07	NMED SSL	
0680-SS-12AM-SO	280-15708-17	5/10/2011	0-0.5	Barium	7440-39-3	95		2	0.075	mg/Kg	4390	NMED SSL	
0680-SS-12AM-SO	280-15708-17	5/10/2011	0-0.5	Cadmium	7440-43-9	0.11	J	0.5	0.041	mg/Kg	70.5	NMED SSL	
0680-SS-12AM-SO	280-15708-17	5/10/2011	0-0.5	Chromium	7440-47-3	5.2		3.5	0.057	mg/Kg	96.6	NMED SSL	
0680-SS-12AM-SO	280-15708-17	5/10/2011	0-0.5	Lead	7439-92-1	7.8		0.89	0.27	mg/Kg	200	EPA RSL	

Table B.7-2 Parcel 6 AOC80: Method 6010B/7471A Metals soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0680-SS-12AM-SO	280-15708-17	5/10/2011	0-0.5	Mercury	7439-97-6	0.03	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-12BM-SO	280-15708-18	5/10/2011	0-0.5	Arsenic	7440-38-2	2.9		2.4	0.62	mg/Kg	7.07	NMED SSL	
0680-SS-12BM-SO	280-15708-18	5/10/2011	0-0.5	Barium	7440-39-3	100		1.9	0.072	mg/Kg	4390	NMED SSL	
0680-SS-12BM-SO	280-15708-18	5/10/2011	0-0.5	Cadmium	7440-43-9	0.09	J	0.47	0.039	mg/Kg	70.5	NMED SSL	
0680-SS-12BM-SO	280-15708-18	5/10/2011	0-0.5	Chromium	7440-47-3	5.3		3.3	0.055	mg/Kg	96.6	NMED SSL	
0680-SS-12BM-SO	280-15708-18	5/10/2011	0-0.5	Lead	7439-92-1	8.6		0.85	0.25	mg/Kg	200	EPA RSL	
0680-SS-12BM-SO	280-15708-18	5/10/2011	0-0.5	Mercury	7439-97-6	0.025	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-13AM-SO	280-15818-1	5/11/2011	0-0.5	Arsenic	7440-38-2	4.8		2.4	0.64	mg/Kg	7.07	NMED SSL	
0680-SS-13AM-SO	280-15818-1	5/11/2011	0-0.5	Barium	7440-39-3	120		1.9	0.074	mg/Kg	4390	NMED SSL	
0680-SS-13AM-SO	280-15818-1	5/11/2011	0-0.5	Cadmium	7440-43-9	0.13	J	0.48	0.04	mg/Kg	70.5	NMED SSL	
0680-SS-13AM-SO	280-15818-1	5/11/2011	0-0.5	Chromium	7440-47-3	6.4		3.4	0.056	mg/Kg	96.6	NMED SSL	
0680-SS-13AM-SO	280-15818-1	5/11/2011	0-0.5	Lead	7439-92-1	9.6		0.87	0.26	mg/Kg	200	EPA RSL	
0680-SS-13AM-SO	280-15818-1	5/11/2011	0-0.5	Mercury	7439-97-6	0.025	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-13BM-SO	280-15818-2	5/11/2011	0-0.5	Arsenic	7440-38-2	4.2		2.3	0.6	mg/Kg	7.07	NMED SSL	
0680-SS-13BM-SO	280-15818-2	5/11/2011	0-0.5	Barium	7440-39-3	110		1.8	0.069	mg/Kg	4390	NMED SSL	
0680-SS-13BM-SO	280-15818-2	5/11/2011	0-0.5	Cadmium	7440-43-9	0.11	J	0.46	0.037	mg/Kg	70.5	NMED SSL	
0680-SS-13BM-SO	280-15818-2	5/11/2011	0-0.5	Chromium	7440-47-3	6.5		3.2	0.053	mg/Kg	96.6	NMED SSL	
0680-SS-13BM-SO	280-15818-2	5/11/2011	0-0.5	Lead	7439-92-1	8.3		0.82	0.25	mg/Kg	200	EPA RSL	
0680-SS-13BM-SO	280-15818-2	5/11/2011	0-0.5	Mercury	7439-97-6	0.021	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-14AM-SO	280-15818-3	5/11/2011	0-0.5	Arsenic	7440-38-2	4.7		2.3	0.62	mg/Kg	7.07	NMED SSL	
0680-SS-14AM-SO	280-15818-3	5/11/2011	0-0.5	Barium	7440-39-3	110		1.9	0.071	mg/Kg	4390	NMED SSL	
0680-SS-14AM-SO	280-15818-3	5/11/2011	0-0.5	Cadmium	7440-43-9	0.12	J	0.47	0.038	mg/Kg	70.5	NMED SSL	
0680-SS-14AM-SO	280-15818-3	5/11/2011	0-0.5	Chromium	7440-47-3	6.1		3.3	0.054	mg/Kg	96.6	NMED SSL	
0680-SS-14AM-SO	280-15818-3	5/11/2011	0-0.5	Lead	7439-92-1	9.5		0.84	0.25	mg/Kg	200	EPA RSL	
0680-SS-14AM-SO	280-15818-3	5/11/2011	0-0.5	Mercury	7439-97-6	0.032	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-14BM-SO	280-15818-4	5/11/2011	0-0.5	Arsenic	7440-38-2	4.9		2.4	0.64	mg/Kg	7.07	NMED SSL	
0680-SS-14BM-SO	280-15818-4	5/11/2011	0-0.5	Barium	7440-39-3	140		2	0.074	mg/Kg	4390	NMED SSL	
0680-SS-14BM-SO	280-15818-4	5/11/2011	0-0.5	Cadmium	7440-43-9	0.096	J	0.49	0.04	mg/Kg	70.5	NMED SSL	
0680-SS-14BM-SO	280-15818-4	5/11/2011	0-0.5	Chromium	7440-47-3	6.6		3.4	0.057	mg/Kg	96.6	NMED SSL	

Table B.7-2 Parcel 6 AOC80: Method 6010B/7471A Metals soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0680-SS-14BM-SO	280-15818-4	5/11/2011	0-0.5	Lead	7439-92-1	8.7		0.88	0.26	mg/Kg	200	EPA RSL	
0680-SS-14BM-SO	280-15818-4	5/11/2011	0-0.5	Mercury	7439-97-6	0.025	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-15AM-SO	280-15818-5	5/11/2011	0-0.5	Arsenic	7440-38-2	4.2		2.4	0.62	mg/Kg	7.07	NMED SSL	
0680-SS-15AM-SO	280-15818-5	5/11/2011	0-0.5	Barium	7440-39-3	120		1.9	0.072	mg/Kg	4390	NMED SSL	
0680-SS-15AM-SO	280-15818-5	5/11/2011	0-0.5	Cadmium	7440-43-9	0.13	J	0.47	0.039	mg/Kg	70.5	NMED SSL	
0680-SS-15AM-SO	280-15818-5	5/11/2011	0-0.5	Chromium	7440-47-3	6		3.3	0.055	mg/Kg	96.6	NMED SSL	
0680-SS-15AM-SO	280-15818-5	5/11/2011	0-0.5	Lead	7439-92-1	9.7		0.85	0.25	mg/Kg	200	EPA RSL	
0680-SS-15AM-SO	280-15818-5	5/11/2011	0-0.5	Mercury	7439-97-6	0.02	J	0.032	0.0054	mg/kg	20.7	NMED SSL	
0680-SS-15BM-SO	280-15818-6	5/11/2011	0-0.5	Arsenic	7440-38-2	4.7		2.5	0.65	mg/Kg	7.07	NMED SSL	
0680-SS-15BM-SO	280-15818-6	5/11/2011	0-0.5	Barium	7440-39-3	130		2	0.075	mg/Kg	4390	NMED SSL	
0680-SS-15BM-SO	280-15818-6	5/11/2011	0-0.5	Cadmium	7440-43-9	0.11	J	0.49	0.04	mg/Kg	70.5	NMED SSL	
0680-SS-15BM-SO	280-15818-6	5/11/2011	0-0.5	Chromium	7440-47-3	6.8		3.4	0.057	mg/Kg	96.6	NMED SSL	
0680-SS-15BM-SO	280-15818-6	5/11/2011	0-0.5	Lead	7439-92-1	8.8		0.89	0.27	mg/Kg	200	EPA RSL	
0680-SS-15BM-SO	280-15818-6	5/11/2011	0-0.5	Mercury	7439-97-6	0.023	J	0.032	0.0054	mg/kg	20.7	NMED SSL	
0680-SS-16AM-SO	280-15818-7	5/11/2011	0-0.5	Arsenic	7440-38-2	4.1		2.4	0.63	mg/Kg	7.07	NMED SSL	
0680-SS-16AM-SO	280-15818-7	5/11/2011	0-0.5	Barium	7440-39-3	110		1.9	0.072	mg/Kg	4390	NMED SSL	
0680-SS-16AM-SO	280-15818-7	5/11/2011	0-0.5	Cadmium	7440-43-9	0.11	J	0.47	0.039	mg/Kg	70.5	NMED SSL	
0680-SS-16AM-SO	280-15818-7	5/11/2011	0-0.5	Chromium	7440-47-3	5.6		3.3	0.055	mg/Kg	96.6	NMED SSL	
0680-SS-16AM-SO	280-15818-7	5/11/2011	0-0.5	Lead	7439-92-1	8.8		0.85	0.26	mg/Kg	200	EPA RSL	
0680-SS-16AM-SO	280-15818-7	5/11/2011	0-0.5	Mercury	7439-97-6	0.019	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-16BM-SO	280-15818-8	5/11/2011	0-0.5	Arsenic	7440-38-2	4.2		2.4	0.64	mg/Kg	7.07	NMED SSL	
0680-SS-16BM-SO	280-15818-8	5/11/2011	0-0.5	Barium	7440-39-3	120		1.9	0.074	mg/Kg	4390	NMED SSL	
0680-SS-16BM-SO	280-15818-8	5/11/2011	0-0.5	Cadmium	7440-43-9	0.11	J	0.48	0.04	mg/Kg	70.5	NMED SSL	
0680-SS-16BM-SO	280-15818-8	5/11/2011	0-0.5	Chromium	7440-47-3	6.6		3.4	0.056	mg/Kg	96.6	NMED SSL	
0680-SS-16BM-SO	280-15818-8	5/11/2011	0-0.5	Lead	7439-92-1	8.6		0.87	0.26	mg/Kg	200	EPA RSL	
0680-SS-16BM-SO	280-15818-8	5/11/2011	0-0.5	Mercury	7439-97-6	0.018	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-17AM-SO	280-15818-15	5/12/2011	0-0.5	Arsenic	7440-38-2	4.3		2.5	0.66	mg/Kg	7.07	NMED SSL	
0680-SS-17AM-SO	280-15818-15	5/12/2011	0-0.5	Barium	7440-39-3	160		2	0.076	mg/Kg	4390	NMED SSL	
0680-SS-17AM-SO	280-15818-15	5/12/2011	0-0.5	Cadmium	7440-43-9	0.15	J	0.5	0.041	mg/Kg	70.5	NMED SSL	

Table B.7-2 Parcel 6 AOC80: Method 6010B/7471A Metals soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0680-SS-17AM-SO	280-15818-15	5/12/2011	0-0.5	Chromium	7440-47-3	6.5		3.5	0.058	mg/Kg	96.6	NMED SSL	
0680-SS-17AM-SO	280-15818-15	5/12/2011	0-0.5	Lead	7439-92-1	15		0.9	0.27	mg/Kg	200	EPA RSL	
0680-SS-17AM-SO	280-15818-15	5/12/2011	0-0.5	Mercury	7439-97-6	0.017	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-17BM-SO	280-15818-16	5/12/2011	0-0.5	Arsenic	7440-38-2	4.4		2.5	0.65	mg/Kg	7.07	NMED SSL	
0680-SS-17BM-SO	280-15818-16	5/12/2011	0-0.5	Barium	7440-39-3	180		2	0.075	mg/Kg	4390	NMED SSL	
0680-SS-17BM-SO	280-15818-16	5/12/2011	0-0.5	Cadmium	7440-43-9	0.12	J	0.49	0.04	mg/Kg	70.5	NMED SSL	
0680-SS-17BM-SO	280-15818-16	5/12/2011	0-0.5	Chromium	7440-47-3	8.8		3.4	0.057	mg/Kg	96.6	NMED SSL	
0680-SS-17BM-SO	280-15818-16	5/12/2011	0-0.5	Lead	7439-92-1	11		0.89	0.27	mg/Kg	200	EPA RSL	
0680-SS-17BM-SO	280-15818-16	5/12/2011	0-0.5	Mercury	7439-97-6	0.023	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-18AM-SO	280-15869-3	5/13/2011	0-0.5	Arsenic	7440-38-2	2.1	J	2.4	0.65	mg/Kg	7.07	NMED SSL	
0680-SS-18AM-SO	280-15869-3	5/13/2011	0-0.5	Barium	7440-39-3	100	J	2	0.074	mg/Kg	4390	NMED SSL	
0680-SS-18AM-SO	280-15869-3	5/13/2011	0-0.5	Cadmium	7440-43-9	0.1	J	0.49	0.04	mg/Kg	70.5	NMED SSL	
0680-SS-18AM-SO	280-15869-3	5/13/2011	0-0.5	Chromium	7440-47-3	4.6	J	3.4	0.057	mg/Kg	96.6	NMED SSL	
0680-SS-18AM-SO	280-15869-3	5/13/2011	0-0.5	Lead	7439-92-1	30	J	0.88	0.26	mg/Kg	200	EPA RSL	
0680-SS-18AM-SO	280-15869-3	5/13/2011	0-0.5	Mercury	7439-97-6	0.015	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-18BM-SO	280-15869-4	5/13/2011	0-0.5	Arsenic	7440-38-2	1.8	J	2.5	0.65	mg/Kg	7.07	NMED SSL	
0680-SS-18BM-SO	280-15869-4	5/13/2011	0-0.5	Barium	7440-39-3	110	J	2	0.075	mg/Kg	4390	NMED SSL	
0680-SS-18BM-SO	280-15869-4	5/13/2011	0-0.5	Cadmium	7440-43-9	0.067	J	0.49	0.04	mg/Kg	70.5	NMED SSL	
0680-SS-18BM-SO	280-15869-4	5/13/2011	0-0.5	Chromium	7440-47-3	3.7	J	3.4	0.057	mg/Kg	96.6	NMED SSL	
0680-SS-18BM-SO	280-15869-4	5/13/2011	0-0.5	Lead	7439-92-1	9.8	J	0.88	0.26	mg/Kg	200	EPA RSL	
0680-SS-18BM-SO	280-15869-4	5/13/2011	0-0.5	Mercury	7439-97-6	0.0099	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-19AM-SO	280-15932-17	5/14/2011	0-0.5	Arsenic	7440-38-2	2.4	J	2.4	0.64	mg/Kg	7.07	NMED SSL	
0680-SS-19AM-SO	280-15932-17	5/14/2011	0-0.5	Barium	7440-39-3	260		1.9	0.073	mg/Kg	4390	NMED SSL	
0680-SS-19AM-SO	280-15932-17	5/14/2011	0-0.5	Cadmium	7440-43-9	0.11	J	0.48	0.04	mg/Kg	70.5	NMED SSL	
0680-SS-19AM-SO	280-15932-17	5/14/2011	0-0.5	Chromium	7440-47-3	6.6		3.4	0.056	mg/Kg	96.6	NMED SSL	
0680-SS-19AM-SO	280-15932-17	5/14/2011	0-0.5	Lead	7439-92-1	8.8	J	0.87	0.26	mg/Kg	200	EPA RSL	
0680-SS-19AM-SO	280-15932-17	5/14/2011	0-0.5	Mercury	7439-97-6	0.018	J	0.031	0.0052	mg/kg	20.7	NMED SSL	
0680-SS-19BM-SO	280-15932-18	5/14/2011	0-0.5	Arsenic	7440-38-2	2.7	J	2.4	0.63	mg/Kg	7.07	NMED SSL	
0680-SS-19BM-SO	280-15932-18	5/14/2011	0-0.5	Barium	7440-39-3	220		1.9	0.072	mg/Kg	4390	NMED SSL	

Table B.7-2 Parcel 6 AOC80: Method 6010B/7471A Metals soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0680-SS-19BM-SO	280-15932-18	5/14/2011	0-0.5	Cadmium	7440-43-9	0.16	J	0.48	0.039	mg/Kg	70.5	NMED SSL	
0680-SS-19BM-SO	280-15932-18	5/14/2011	0-0.5	Chromium	7440-47-3	6.3		3.3	0.055	mg/Kg	96.6	NMED SSL	
0680-SS-19BM-SO	280-15932-18	5/14/2011	0-0.5	Lead	7439-92-1	12	J	0.86	0.26	mg/Kg	200	EPA RSL	
0680-SS-19BM-SO	280-15932-18	5/14/2011	0-0.5	Mercury	7439-97-6	0.02	J	0.032	0.0054	mg/kg	20.7	NMED SSL	
0680-SS-1AM-SO	280-15708-20	5/9/2011	0-0.5	Arsenic	7440-38-2	2.6	J	2.3	0.62	mg/Kg	7.07	NMED SSL	
0680-SS-1AM-SO	280-15708-20	5/9/2011	0-0.5	Barium	7440-39-3	160		1.9	0.071	mg/Kg	4390	NMED SSL	
0680-SS-1AM-SO	280-15708-20	5/9/2011	0-0.5	Cadmium	7440-43-9	0.092	J	0.47	0.038	mg/Kg	70.5	NMED SSL	
0680-SS-1AM-SO	280-15708-20	5/9/2011	0-0.5	Chromium	7440-47-3	3.9		3.3	0.054	mg/Kg	96.6	NMED SSL	
0680-SS-1AM-SO	280-15708-20	5/9/2011	0-0.5	Lead	7439-92-1	8.5		0.85	0.25	mg/Kg	200	EPA RSL	
0680-SS-1AM-SO	280-15708-20	5/9/2011	0-0.5	Mercury	7439-97-6	0.024	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-1BM-SO	280-15708-22	5/9/2011	0-0.5	Arsenic	7440-38-2	1.7	J	2.4	0.64	mg/Kg	7.07	NMED SSL	
0680-SS-1BM-SO	280-15708-22	5/9/2011	0-0.5	Barium	7440-39-3	190		1.9	0.074	mg/Kg	4390	NMED SSL	
0680-SS-1BM-SO	280-15708-22	5/9/2011	0-0.5	Cadmium	7440-43-9	0.082	J	0.48	0.04	mg/Kg	70.5	NMED SSL	
0680-SS-1BM-SO	280-15708-22	5/9/2011	0-0.5	Chromium	7440-47-3	5.4		3.4	0.056	mg/Kg	96.6	NMED SSL	
0680-SS-1BM-SO	280-15708-22	5/9/2011	0-0.5	Lead	7439-92-1	6.4		0.87	0.26	mg/Kg	200	EPA RSL	
0680-SS-1BM-SO	280-15708-22	5/9/2011	0-0.5	Mercury	7439-97-6	0.024	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-20AM-SO	280-15869-1	5/13/2011	0-0.5	Arsenic	7440-38-2	3.4	J	2.4	0.64	mg/Kg	7.07	NMED SSL	
0680-SS-20AM-SO	280-15869-1	5/13/2011	0-0.5	Barium	7440-39-3	140	J	2	0.074	mg/Kg	4390	NMED SSL	
0680-SS-20AM-SO	280-15869-1	5/13/2011	0-0.5	Cadmium	7440-43-9	0.14	J	0.49	0.04	mg/Kg	70.5	NMED SSL	
0680-SS-20AM-SO	280-15869-1	5/13/2011	0-0.5	Chromium	7440-47-3	5.6	J	3.4	0.057	mg/Kg	96.6	NMED SSL	
0680-SS-20AM-SO	280-15869-1	5/13/2011	0-0.5	Lead	7439-92-1	11	J	0.88	0.26	mg/Kg	200	EPA RSL	
0680-SS-20AM-SO	280-15869-1	5/13/2011	0-0.5	Mercury	7439-97-6	0.017	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-20BM-SO	280-15869-2	5/13/2011	0-0.5	Arsenic	7440-38-2	3.5	J	2.4	0.63	mg/Kg	7.07	NMED SSL	
0680-SS-20BM-SO	280-15869-2	5/13/2011	0-0.5	Barium	7440-39-3	150	J	1.9	0.072	mg/Kg	4390	NMED SSL	
0680-SS-20BM-SO	280-15869-2	5/13/2011	0-0.5	Cadmium	7440-43-9	0.11	J	0.48	0.039	mg/Kg	70.5	NMED SSL	
0680-SS-20BM-SO	280-15869-2	5/13/2011	0-0.5	Chromium	7440-47-3	5.5	J	3.3	0.055	mg/Kg	96.6	NMED SSL	
0680-SS-20BM-SO	280-15869-2	5/13/2011	0-0.5	Lead	7439-92-1	9.2	J	0.86	0.26	mg/Kg	200	EPA RSL	
0680-SS-20BM-SO	280-15869-2	5/13/2011	0-0.5	Mercury	7439-97-6	0.015	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-21AM-SO	280-15818-10	5/11/2011	0-0.5	Arsenic	7440-38-2	3.5		2.3	0.61	mg/Kg	7.07	NMED SSL	

Table B.7-2 Parcel 6 AOC80: Method 6010B/7471A Metals soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0680-SS-21AM-SO	280-15818-10	5/11/2011	0-0.5	Barium	7440-39-3	160		1.9	0.071	mg/Kg	4390	NMED SSL	
0680-SS-21AM-SO	280-15818-10	5/11/2011	0-0.5	Cadmium	7440-43-9	0.099	J	0.47	0.038	mg/Kg	70.5	NMED SSL	
0680-SS-21AM-SO	280-15818-10	5/11/2011	0-0.5	Chromium	7440-47-3	4.8		3.3	0.054	mg/Kg	96.6	NMED SSL	
0680-SS-21AM-SO	280-15818-10	5/11/2011	0-0.5	Lead	7439-92-1	8.2		0.84	0.25	mg/Kg	200	EPA RSL	
0680-SS-21AM-SO	280-15818-10	5/11/2011	0-0.5	Mercury	7439-97-6	0.023	J	0.032	0.0054	mg/kg	20.7	NMED SSL	
0680-SS-21BM-SO	280-15818-11	5/11/2011	0-0.5	Arsenic	7440-38-2	4.5		2.5	0.66	mg/Kg	7.07	NMED SSL	
0680-SS-21BM-SO	280-15818-11	5/11/2011	0-0.5	Barium	7440-39-3	160		2	0.076	mg/Kg	4390	NMED SSL	
0680-SS-21BM-SO	280-15818-11	5/11/2011	0-0.5	Cadmium	7440-43-9	0.11	J	0.5	0.041	mg/Kg	70.5	NMED SSL	
0680-SS-21BM-SO	280-15818-11	5/11/2011	0-0.5	Chromium	7440-47-3	6.1		3.5	0.058	mg/Kg	96.6	NMED SSL	
0680-SS-21BM-SO	280-15818-11	5/11/2011	0-0.5	Lead	7439-92-1	8.9		0.89	0.27	mg/Kg	200	EPA RSL	
0680-SS-21BM-SO	280-15818-11	5/11/2011	0-0.5	Mercury	7439-97-6	0.022	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-22AM-SO	280-15818-17	5/12/2011	0-0.5	Arsenic	7440-38-2	4.5		2.3	0.62	mg/Kg	7.07	NMED SSL	
0680-SS-22AM-SO	280-15818-17	5/12/2011	0-0.5	Barium	7440-39-3	150		1.9	0.071	mg/Kg	4390	NMED SSL	
0680-SS-22AM-SO	280-15818-17	5/12/2011	0-0.5	Cadmium	7440-43-9	0.17	J	0.47	0.039	mg/Kg	70.5	NMED SSL	
0680-SS-22AM-SO	280-15818-17	5/12/2011	0-0.5	Chromium	7440-47-3	5.7		3.3	0.055	mg/Kg	96.6	NMED SSL	
0680-SS-22AM-SO	280-15818-17	5/12/2011	0-0.5	Lead	7439-92-1	18		0.85	0.25	mg/Kg	200	EPA RSL	
0680-SS-22AM-SO	280-15818-17	5/12/2011	0-0.5	Mercury	7439-97-6	0.014	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-22BM-SO	280-15818-18	5/12/2011	0-0.5	Arsenic	7440-38-2	4.4		2.4	0.62	mg/Kg	7.07	NMED SSL	
0680-SS-22BM-SO	280-15818-18	5/12/2011	0-0.5	Barium	7440-39-3	130		1.9	0.072	mg/Kg	4390	NMED SSL	
0680-SS-22BM-SO	280-15818-18	5/12/2011	0-0.5	Cadmium	7440-43-9	0.11	J	0.47	0.039	mg/Kg	70.5	NMED SSL	
0680-SS-22BM-SO	280-15818-18	5/12/2011	0-0.5	Chromium	7440-47-3	6.9		3.3	0.055	mg/Kg	96.6	NMED SSL	
0680-SS-22BM-SO	280-15818-18	5/12/2011	0-0.5	Lead	7439-92-1	9.9		0.85	0.26	mg/Kg	200	EPA RSL	
0680-SS-22BM-SO	280-15818-18	5/12/2011	0-0.5	Mercury	7439-97-6	0.02	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-23AM-SO	280-15818-19	5/12/2011	0-0.5	Arsenic	7440-38-2	4.3		2.3	0.6	mg/Kg	7.07	NMED SSL	
0680-SS-23AM-SO	280-15818-19	5/12/2011	0-0.5	Barium	7440-39-3	190		1.8	0.069	mg/Kg	4390	NMED SSL	
0680-SS-23AM-SO	280-15818-19	5/12/2011	0-0.5	Cadmium	7440-43-9	0.12	J	0.46	0.037	mg/Kg	70.5	NMED SSL	
0680-SS-23AM-SO	280-15818-19	5/12/2011	0-0.5	Chromium	7440-47-3	5.4		3.2	0.053	mg/Kg	96.6	NMED SSL	
0680-SS-23AM-SO	280-15818-19	5/12/2011	0-0.5	Lead	7439-92-1	11		0.82	0.25	mg/Kg	200	EPA RSL	
0680-SS-23AM-SO	280-15818-19	5/12/2011	0-0.5	Mercury	7439-97-6	0.02	J	0.033	0.0055	mg/kg	20.7	NMED SSL	

Table B.7-2 Parcel 6 AOC80: Method 6010B/7471A Metals soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0680-SS-23BM-SO	280-15818-20	5/12/2011	0-0.5	Arsenic	7440-38-2	4		2.4	0.63	mg/Kg	7.07	NMED SSL	
0680-SS-23BM-SO	280-15818-20	5/12/2011	0-0.5	Barium	7440-39-3	200		1.9	0.072	mg/Kg	4390	NMED SSL	
0680-SS-23BM-SO	280-15818-20	5/12/2011	0-0.5	Cadmium	7440-43-9	0.1	J	0.48	0.039	mg/Kg	70.5	NMED SSL	
0680-SS-23BM-SO	280-15818-20	5/12/2011	0-0.5	Chromium	7440-47-3	5.8		3.3	0.055	mg/Kg	96.6	NMED SSL	
0680-SS-23BM-SO	280-15818-20	5/12/2011	0-0.5	Lead	7439-92-1	10		0.86	0.26	mg/Kg	200	EPA RSL	
0680-SS-23BM-SO	280-15818-20	5/12/2011	0-0.5	Mercury	7439-97-6	0.02	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-24AM-SO	280-15818-12	5/12/2011	0-0.5	Arsenic	7440-38-2	4		2.5	0.65	mg/Kg	7.07	NMED SSL	
0680-SS-24AM-SO	280-15818-12	5/12/2011	0-0.5	Barium	7440-39-3	210		2	0.075	mg/Kg	4390	NMED SSL	
0680-SS-24AM-SO	280-15818-12	5/12/2011	0-0.5	Cadmium	7440-43-9	0.13	J	0.49	0.04	mg/Kg	70.5	NMED SSL	
0680-SS-24AM-SO	280-15818-12	5/12/2011	0-0.5	Chromium	7440-47-3	7.1		3.4	0.057	mg/Kg	96.6	NMED SSL	
0680-SS-24AM-SO	280-15818-12	5/12/2011	0-0.5	Lead	7439-92-1	14		0.88	0.26	mg/Kg	200	EPA RSL	
0680-SS-24AM-SO	280-15818-12	5/12/2011	0-0.5	Mercury	7439-97-6	0.022	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-24BM-SO	280-15818-14	5/12/2011	0-0.5	Arsenic	7440-38-2	4.3		2.4	0.63	mg/Kg	7.07	NMED SSL	
0680-SS-24BM-SO	280-15818-14	5/12/2011	0-0.5	Barium	7440-39-3	190		1.9	0.072	mg/Kg	4390	NMED SSL	
0680-SS-24BM-SO	280-15818-14	5/12/2011	0-0.5	Cadmium	7440-43-9	0.092	J	0.48	0.039	mg/Kg	70.5	NMED SSL	
0680-SS-24BM-SO	280-15818-14	5/12/2011	0-0.5	Chromium	7440-47-3	6		3.3	0.055	mg/Kg	96.6	NMED SSL	
0680-SS-24BM-SO	280-15818-14	5/12/2011	0-0.5	Lead	7439-92-1	8.7		0.86	0.26	mg/Kg	200	EPA RSL	
0680-SS-24BM-SO	280-15818-14	5/12/2011	0-0.5	Mercury	7439-97-6	0.022	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-2AM-SO	280-15708-23	5/9/2011	0-0.5	Arsenic	7440-38-2	3.4	J	2.5	0.65	mg/Kg	7.07	NMED SSL	
0680-SS-2AM-SO	280-15708-23	5/9/2011	0-0.5	Barium	7440-39-3	82		2	0.075	mg/Kg	4390	NMED SSL	
0680-SS-2AM-SO	280-15708-23	5/9/2011	0-0.5	Cadmium	7440-43-9	0.15	J	0.5	0.041	mg/Kg	70.5	NMED SSL	
0680-SS-2AM-SO	280-15708-23	5/9/2011	0-0.5	Chromium	7440-47-3	5.8		3.5	0.058	mg/Kg	96.6	NMED SSL	
0680-SS-2AM-SO	280-15708-23	5/9/2011	0-0.5	Lead	7439-92-1	9.5		0.89	0.27	mg/Kg	200	EPA RSL	
0680-SS-2AM-SO	280-15708-23	5/9/2011	0-0.5	Mercury	7439-97-6	0.024	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-2BM-SO	280-15708-24	5/9/2011	0-0.5	Arsenic	7440-38-2	2.3	J	2.4	0.62	mg/Kg	7.07	NMED SSL	
0680-SS-2BM-SO	280-15708-24	5/9/2011	0-0.5	Barium	7440-39-3	160		1.9	0.072	mg/Kg	4390	NMED SSL	
0680-SS-2BM-SO	280-15708-24	5/9/2011	0-0.5	Cadmium	7440-43-9	0.13	J	0.47	0.039	mg/Kg	70.5	NMED SSL	
0680-SS-2BM-SO	280-15708-24	5/9/2011	0-0.5	Chromium	7440-47-3	5.5		3.3	0.055	mg/Kg	96.6	NMED SSL	
0680-SS-2BM-SO	280-15708-24	5/9/2011	0-0.5	Lead	7439-92-1	14		0.85	0.25	mg/Kg	200	EPA RSL	

Table B.7-2 Parcel 6 AOC80: Method 6010B/7471A Metals soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0680-SS-2BM-SO	280-15708-24	5/9/2011	0-0.5	Mercury	7439-97-6	0.022	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-3AM-SO	280-15708-25	5/9/2011	0-0.5	Arsenic	7440-38-2	2.6	J	2.4	0.63	mg/Kg	7.07	NMED SSL	
0680-SS-3AM-SO	280-15708-25	5/9/2011	0-0.5	Barium	7440-39-3	73		1.9	0.073	mg/Kg	4390	NMED SSL	
0680-SS-3AM-SO	280-15708-25	5/9/2011	0-0.5	Cadmium	7440-43-9	0.14	J	0.48	0.039	mg/Kg	70.5	NMED SSL	
0680-SS-3AM-SO	280-15708-25	5/9/2011	0-0.5	Chromium	7440-47-3	3.8		3.3	0.056	mg/Kg	96.6	NMED SSL	
0680-SS-3AM-SO	280-15708-25	5/9/2011	0-0.5	Lead	7439-92-1	7.5		0.86	0.26	mg/Kg	200	EPA RSL	
0680-SS-3AM-SO	280-15708-25	5/9/2011	0-0.5	Mercury	7439-97-6	0.017	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-3BM-SO	280-15708-26	5/9/2011	0-0.5	Arsenic	7440-38-2	2.7	J	2.4	0.63	mg/Kg	7.07	NMED SSL	
0680-SS-3BM-SO	280-15708-26	5/9/2011	0-0.5	Barium	7440-39-3	77		1.9	0.073	mg/Kg	4390	NMED SSL	
0680-SS-3BM-SO	280-15708-26	5/9/2011	0-0.5	Cadmium	7440-43-9	0.1	J	0.48	0.039	mg/Kg	70.5	NMED SSL	
0680-SS-3BM-SO	280-15708-26	5/9/2011	0-0.5	Chromium	7440-47-3	4.6		3.3	0.056	mg/Kg	96.6	NMED SSL	
0680-SS-3BM-SO	280-15708-26	5/9/2011	0-0.5	Lead	7439-92-1	7.1		0.86	0.26	mg/Kg	200	EPA RSL	
0680-SS-3BM-SO	280-15708-26	5/9/2011	0-0.5	Mercury	7439-97-6	0.022	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-4AM-SO	280-15708-27	5/9/2011	0-0.5	Arsenic	7440-38-2	3.1	J	2.4	0.62	mg/Kg	7.07	NMED SSL	
0680-SS-4AM-SO	280-15708-27	5/9/2011	0-0.5	Barium	7440-39-3	78		1.9	0.072	mg/Kg	4390	NMED SSL	
0680-SS-4AM-SO	280-15708-27	5/9/2011	0-0.5	Cadmium	7440-43-9	0.14	J	0.47	0.039	mg/Kg	70.5	NMED SSL	
0680-SS-4AM-SO	280-15708-27	5/9/2011	0-0.5	Chromium	7440-47-3	4.7		3.3	0.055	mg/Kg	96.6	NMED SSL	
0680-SS-4AM-SO	280-15708-27	5/9/2011	0-0.5	Lead	7439-92-1	8.2		0.85	0.25	mg/Kg	200	EPA RSL	
0680-SS-4AM-SO	280-15708-27	5/9/2011	0-0.5	Mercury	7439-97-6	0.019	J	0.032	0.0054	mg/kg	20.7	NMED SSL	
0680-SS-4BM-SO	280-15708-28	5/9/2011	0-0.5	Arsenic	7440-38-2	2.8	J	2.4	0.65	mg/Kg	7.07	NMED SSL	
0680-SS-4BM-SO	280-15708-28	5/9/2011	0-0.5	Barium	7440-39-3	81		2	0.074	mg/Kg	4390	NMED SSL	
0680-SS-4BM-SO	280-15708-28	5/9/2011	0-0.5	Cadmium	7440-43-9	0.1	J	0.49	0.04	mg/Kg	70.5	NMED SSL	
0680-SS-4BM-SO	280-15708-28	5/9/2011	0-0.5	Chromium	7440-47-3	4.8		3.4	0.057	mg/Kg	96.6	NMED SSL	
0680-SS-4BM-SO	280-15708-28	5/9/2011	0-0.5	Lead	7439-92-1	7.3		0.88	0.26	mg/Kg	200	EPA RSL	
0680-SS-4BM-SO	280-15708-28	5/9/2011	0-0.5	Mercury	7439-97-6	0.023	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-5AM-SO	280-15708-31	5/10/2011	0-0.5	Arsenic	7440-38-2	3.2	J	2.4	0.62	mg/Kg	7.07	NMED SSL	
0680-SS-5AM-SO	280-15708-31	5/10/2011	0-0.5	Barium	7440-39-3	79		1.9	0.072	mg/Kg	4390	NMED SSL	
0680-SS-5AM-SO	280-15708-31	5/10/2011	0-0.5	Cadmium	7440-43-9	0.13	J	0.47	0.039	mg/Kg	70.5	NMED SSL	
0680-SS-5AM-SO	280-15708-31	5/10/2011	0-0.5	Chromium	7440-47-3	5.2		3.3	0.055	mg/Kg	96.6	NMED SSL	

Table B.7-2 Parcel 6 AOC80: Method 6010B/7471A Metals soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0680-SS-5AM-SO	280-15708-31	5/10/2011	0-0.5	Lead	7439-92-1	8.2		0.85	0.26	mg/Kg	200	EPA RSL	
0680-SS-5AM-SO	280-15708-31	5/10/2011	0-0.5	Mercury	7439-97-6	0.017	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-5BM-SO	280-15708-32	5/10/2011	0-0.5	Arsenic	7440-38-2	3.2	J	2.4	0.64	mg/Kg	7.07	NMED SSL	
0680-SS-5BM-SO	280-15708-32	5/10/2011	0-0.5	Barium	7440-39-3	90		1.9	0.074	mg/Kg	4390	NMED SSL	
0680-SS-5BM-SO	280-15708-32	5/10/2011	0-0.5	Cadmium	7440-43-9	0.098	J	0.48	0.04	mg/Kg	70.5	NMED SSL	
0680-SS-5BM-SO	280-15708-32	5/10/2011	0-0.5	Chromium	7440-47-3	5.5		3.4	0.056	mg/Kg	96.6	NMED SSL	
0680-SS-5BM-SO	280-15708-32	5/10/2011	0-0.5	Lead	7439-92-1	7.7		0.87	0.26	mg/Kg	200	EPA RSL	
0680-SS-5BM-SO	280-15708-32	5/10/2011	0-0.5	Mercury	7439-97-6	0.018	J	0.031	0.0052	mg/kg	20.7	NMED SSL	
0680-SS-6AM-SO	280-15708-13	5/10/2011	0-0.5	Arsenic	7440-38-2	3.4		2.5	0.65	mg/Kg	7.07	NMED SSL	
0680-SS-6AM-SO	280-15708-13	5/10/2011	0-0.5	Barium	7440-39-3	88		2	0.075	mg/Kg	4390	NMED SSL	
0680-SS-6AM-SO	280-15708-13	5/10/2011	0-0.5	Cadmium	7440-43-9	0.15	J	0.49	0.04	mg/Kg	70.5	NMED SSL	
0680-SS-6AM-SO	280-15708-13	5/10/2011	0-0.5	Chromium	7440-47-3	5.6		3.5	0.057	mg/Kg	96.6	NMED SSL	
0680-SS-6AM-SO	280-15708-13	5/10/2011	0-0.5	Lead	7439-92-1	9.2		0.89	0.27	mg/Kg	200	EPA RSL	
0680-SS-6AM-SO	280-15708-13	5/10/2011	0-0.5	Mercury	7439-97-6	0.02	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-6BM-SO	280-15708-14	5/10/2011	0-0.5	Arsenic	7440-38-2	2.9		2.4	0.63	mg/Kg	7.07	NMED SSL	
0680-SS-6BM-SO	280-15708-14	5/10/2011	0-0.5	Barium	7440-39-3	93		1.9	0.073	mg/Kg	4390	NMED SSL	
0680-SS-6BM-SO	280-15708-14	5/10/2011	0-0.5	Cadmium	7440-43-9	0.084	J	0.48	0.039	mg/Kg	70.5	NMED SSL	
0680-SS-6BM-SO	280-15708-14	5/10/2011	0-0.5	Chromium	7440-47-3	5.4		3.4	0.056	mg/Kg	96.6	NMED SSL	
0680-SS-6BM-SO	280-15708-14	5/10/2011	0-0.5	Lead	7439-92-1	6.6		0.86	0.26	mg/Kg	200	EPA RSL	
0680-SS-6BM-SO	280-15708-14	5/10/2011	0-0.5	Mercury	7439-97-6	0.02	J	0.032	0.0054	mg/kg	20.7	NMED SSL	
0680-SS-7AM-SO	280-15708-15	5/10/2011	0-0.5	Arsenic	7440-38-2	3.3		2.4	0.63	mg/Kg	7.07	NMED SSL	
0680-SS-7AM-SO	280-15708-15	5/10/2011	0-0.5	Barium	7440-39-3	83		1.9	0.073	mg/Kg	4390	NMED SSL	
0680-SS-7AM-SO	280-15708-15	5/10/2011	0-0.5	Cadmium	7440-43-9	0.12	J	0.48	0.039	mg/Kg	70.5	NMED SSL	
0680-SS-7AM-SO	280-15708-15	5/10/2011	0-0.5	Chromium	7440-47-3	4.8		3.4	0.056	mg/Kg	96.6	NMED SSL	
0680-SS-7AM-SO	280-15708-15	5/10/2011	0-0.5	Lead	7439-92-1	8.4		0.86	0.26	mg/Kg	200	EPA RSL	
0680-SS-7AM-SO	280-15708-15	5/10/2011	0-0.5	Mercury	7439-97-6	0.021	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-7BM-SO	280-15708-16	5/10/2011	0-0.5	Arsenic	7440-38-2	1.8	J	2.4	0.64	mg/Kg	7.07	NMED SSL	
0680-SS-7BM-SO	280-15708-16	5/10/2011	0-0.5	Barium	7440-39-3	65		1.9	0.074	mg/Kg	4390	NMED SSL	
0680-SS-7BM-SO	280-15708-16	5/10/2011	0-0.5	Cadmium	7440-43-9	0.056	J	0.49	0.04	mg/Kg	70.5	NMED SSL	

Table B.7-2 Parcel 6 AOC80: Method 6010B/7471A Metals soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0680-SS-7BM-SO	280-15708-16	5/10/2011	0-0.5	Chromium	7440-47-3	4.3		3.4	0.056	mg/Kg	96.6	NMED SSL	
0680-SS-7BM-SO	280-15708-16	5/10/2011	0-0.5	Lead	7439-92-1	4.1		0.87	0.26	mg/Kg	200	EPA RSL	
0680-SS-7BM-SO	280-15708-16	5/10/2011	0-0.5	Mercury	7439-97-6	0.023	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-8AM-SO	280-15708-29	5/10/2011	0-0.5	Arsenic	7440-38-2	3.3	J	2.5	0.66	mg/Kg	7.07	NMED SSL	
0680-SS-8AM-SO	280-15708-29	5/10/2011	0-0.5	Barium	7440-39-3	84		2	0.076	mg/Kg	4390	NMED SSL	
0680-SS-8AM-SO	280-15708-29	5/10/2011	0-0.5	Cadmium	7440-43-9	0.14	J	0.5	0.041	mg/Kg	70.5	NMED SSL	
0680-SS-8AM-SO	280-15708-29	5/10/2011	0-0.5	Chromium	7440-47-3	5		3.5	0.058	mg/Kg	96.6	NMED SSL	
0680-SS-8AM-SO	280-15708-29	5/10/2011	0-0.5	Lead	7439-92-1	9		0.9	0.27	mg/Kg	200	EPA RSL	
0680-SS-8AM-SO	280-15708-29	5/10/2011	0-0.5	Mercury	7439-97-6	0.02	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-8BM-SO	280-15708-30	5/10/2011	0-0.5	Arsenic	7440-38-2	3.3	J	2.3	0.61	mg/Kg	7.07	NMED SSL	
0680-SS-8BM-SO	280-15708-30	5/10/2011	0-0.5	Barium	7440-39-3	100		1.8	0.07	mg/Kg	4390	NMED SSL	
0680-SS-8BM-SO	280-15708-30	5/10/2011	0-0.5	Cadmium	7440-43-9	0.097	J	0.46	0.038	mg/Kg	70.5	NMED SSL	
0680-SS-8BM-SO	280-15708-30	5/10/2011	0-0.5	Chromium	7440-47-3	4.6		3.2	0.053	mg/Kg	96.6	NMED SSL	
0680-SS-8BM-SO	280-15708-30	5/10/2011	0-0.5	Lead	7439-92-1	6.9		0.83	0.25	mg/Kg	200	EPA RSL	
0680-SS-8BM-SO	280-15708-30	5/10/2011	0-0.5	Mercury	7439-97-6	0.021	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-9AM-SO	280-15708-11	5/10/2011	0-0.5	Arsenic	7440-38-2	2.4		2.3	0.61	mg/Kg	7.07	NMED SSL	
0680-SS-9AM-SO	280-15708-11	5/10/2011	0-0.5	Barium	7440-39-3	69		1.9	0.07	mg/Kg	4390	NMED SSL	
0680-SS-9AM-SO	280-15708-11	5/10/2011	0-0.5	Cadmium	7440-43-9	0.099	J	0.46	0.038	mg/Kg	70.5	NMED SSL	
0680-SS-9AM-SO	280-15708-11	5/10/2011	0-0.5	Chromium	7440-47-3	5.1		3.2	0.054	mg/Kg	96.6	NMED SSL	
0680-SS-9AM-SO	280-15708-11	5/10/2011	0-0.5	Lead	7439-92-1	6.8		0.83	0.25	mg/Kg	200	EPA RSL	
0680-SS-9AM-SO	280-15708-11	5/10/2011	0-0.5	Mercury	7439-97-6	0.02	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0680-SS-9BM-SO	280-15708-12	5/10/2011	0-0.5	Arsenic	7440-38-2	3.2		2.5	0.65	mg/Kg	7.07	NMED SSL	
0680-SS-9BM-SO	280-15708-12	5/10/2011	0-0.5	Barium	7440-39-3	96		2	0.075	mg/Kg	4390	NMED SSL	
0680-SS-9BM-SO	280-15708-12	5/10/2011	0-0.5	Cadmium	7440-43-9	0.1	J	0.49	0.04	mg/Kg	70.5	NMED SSL	
0680-SS-9BM-SO	280-15708-12	5/10/2011	0-0.5	Chromium	7440-47-3	5.3		3.4	0.057	mg/Kg	96.6	NMED SSL	
0680-SS-9BM-SO	280-15708-12	5/10/2011	0-0.5	Lead	7439-92-1	7.7		0.88	0.27	mg/Kg	200	EPA RSL	
0680-SS-9BM-SO	280-15708-12	5/10/2011	0-0.5	Mercury	7439-97-6	0.025	J	0.033	0.0055	mg/kg	20.7	NMED SSL	

Notes:

CAS	Chemical Abstracts Service
DC	Direct Contact
DL	Detection Limit
DUP	Duplicate
EPA	Environmental Protection Agency
HH	Human Health
ID	Identification
LOD	Limit of Detection
LOQ	Limit of Quantiation
mg/kg	milligrams per kilogram
NMED	New Mexico Environment Department
NS	No Standard
RCRA	Resource Conservation and Recovery Act
RSL	Regional Screening Level
SSL	Soil Screening Level
SWMU	Soil Waste Management Unit

Lab Qualifier Codes:

Organics

J	Indicates that the analyte is positively identified and the result is less than the LOQ but greater than the DL.
U	Not detected at the LOD

Validation Qualifier Codes:

J	The analyte was positively identified; the associated numerical value is the approximate concentration
U	Not detected at or above the LOD.

Sample ID nomenclature:

Sample ID's consist of a combination of Parcel, AOC, additional site identifier, purpose of sample, increment number, sample depth, sample type, and matrix.

Example: 0608B537AEC-0.0-0.5D-SO
Parcel: 06
SWMU: 08

Additional Site Identifier: B537 (in this case it's Building 537)
Source of Sample: A (in this case it's Building 537 Area A)
Purpose of Sample: EC (excavation confirmation)
Sample Depth: Depth of samples will be designated with a 4-digit number, the first 2 digits starting depth, second 2 digits bottom depth (in this case 0.0 to 0.5 feet)
Sample Type: D (Discrete)
Sample Matrix: SO (soil) (in this case soil)
DUP = Field Duplicate (when applicable)

Screening level exceedances indicated by red result and a yellow highlighted "YES".

1. Excavated - Sample location was excavated during the Permittee-Initiated Interim Measure.

+ Screening Level Sources:

NMED SSL and EPA RSL	The HH DC Value selected is the lowest NMED Direct Contact Screening Level (for residents, industrial/occupational workers, and construction workers) via NMED Risk Assessment Guidance for Site Investigations and Remediation, November 2022 Revised. If there is no NMED Direct Contact Screening Level, the lowest EPA Residential RSL is selected for a target excess cancer risk level of 1 x 10-5 or target noncancer hazard quotient of 1.0 (November 2024). The most recent screening levels published by NMED and USEPA at the time the risk evaluation is conducted will be used in the risk evaluation.

Table B.8-1, Parcel 6 AOC 81: Sample Locations with Associated Sample Identifiers
Fort Wingate Depot Activity, Gallup, NM

Sample ID	Northing (UTM)	Easting (UTM)	Date	Time
0681-SS-1AM-SO	3931932.36	717417.38	5/9/2011	9:30
	3931942.48	717441.70	5/9/2011	9:30
	3931924.87	717448.90	5/9/2011	9:30
	3931914.56	717424.48	5/9/2011	9:30
0681-SS-1BM-SO	3931932.36	717417.38	5/9/2011	9:20
	3931942.48	717441.70	5/9/2011	9:20
	3931924.87	717448.90	5/9/2011	9:20
	3931914.56	717424.48	5/9/2011	9:20
0681-SS-2AM-SO	3931942.48	717441.70	5/9/2011	10:20
	3931955.90	717473.99	5/9/2011	10:20
	3931938.29	717481.29	5/9/2011	10:20
	3931924.87	717448.90	5/9/2011	10:20
0681-SS-2BM-SO	3931942.48	717441.70	5/9/2011	10:10
	3931955.90	717473.99	5/9/2011	10:10
	3931938.29	717481.29	5/9/2011	10:10
	3931924.87	717448.90	5/9/2011	10:10
0681-SS-3AM-SO	3931955.90	717473.99	5/9/2011	11:00
	3931969.32	717506.29	5/9/2011	11:00
	3931952.20	717514.94	5/9/2011	11:00
	3931938.29	717481.29	5/9/2011	11:00
0681-SS-3BM-SO	3931955.90	717473.99	5/9/2011	10:50
	3931969.32	717506.29	5/9/2011	10:50
	3931952.20	717514.94	5/9/2011	10:50
	3931938.29	717481.29	5/9/2011	10:50

[0]Northing and Easting values determined through surveyence with topcom bay station model

Local ID (identifier) qualifiers:

SO- Soil Sample

SS-Surface Sample

BM- Multi Incremental 1 ft. bgs

AM- Multi Incremental <1 ft. bgs

SB- Soil Boring

Table B.8-2 Parcel 6 AOC81: Method 6010B/7471A Metals soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0681-SS-1AM-SO	280-15708-1	5/9/2011	0-0.5	Arsenic	7440-38-2	1.7	J	2.4	0.65	mg/Kg	7.07	NMED SSL	
0681-SS-1AM-SO	280-15708-1	5/9/2011	0-0.5	Barium	7440-39-3	170		2	0.074	mg/Kg	4390	NMED SSL	
0681-SS-1AM-SO	280-15708-1	5/9/2011	0-0.5	Cadmium	7440-43-9	0.096	J	0.49	0.04	mg/Kg	70.5	NMED SSL	
0681-SS-1AM-SO	280-15708-1	5/9/2011	0-0.5	Chromium	7440-47-3	5.4		3.4	0.057	mg/Kg	96.6	NMED SSL	
0681-SS-1AM-SO	280-15708-1	5/9/2011	0-0.5	Lead	7439-92-1	6.2		0.88	0.26	mg/Kg	200	EPA RSL	
0681-SS-1AM-SO	280-15708-1	5/9/2011	0-0.5	Mercury	7439-97-6	0.015	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0681-SS-1BM-SO	280-15708-3	5/9/2011	0-0.5	Arsenic	7440-38-2	1.8	J	2.4	0.64	mg/Kg	7.07	NMED SSL	
0681-SS-1BM-SO	280-15708-3	5/9/2011	0-0.5	Barium	7440-39-3	180		1.9	0.074	mg/Kg	4390	NMED SSL	
0681-SS-1BM-SO	280-15708-3	5/9/2011	0-0.5	Cadmium	7440-43-9	0.082	J	0.48	0.04	mg/Kg	70.5	NMED SSL	
0681-SS-1BM-SO	280-15708-3	5/9/2011	0-0.5	Chromium	7440-47-3	6		3.4	0.056	mg/Kg	96.6	NMED SSL	
0681-SS-1BM-SO	280-15708-3	5/9/2011	0-0.5	Lead	7439-92-1	6.4		0.87	0.26	mg/Kg	200	EPA RSL	
0681-SS-1BM-SO	280-15708-3	5/9/2011	0-0.5	Mercury	7439-97-6	0.013	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0681-SS-2AM-SO	280-15708-4	5/9/2011	0-0.5	Arsenic	7440-38-2	1.6	J	2.5	0.65	mg/Kg	7.07	NMED SSL	
0681-SS-2AM-SO	280-15708-4	5/9/2011	0-0.5	Barium	7440-39-3	170		2	0.075	mg/Kg	4390	NMED SSL	
0681-SS-2AM-SO	280-15708-4	5/9/2011	0-0.5	Cadmium	7440-43-9	0.072	J	0.49	0.04	mg/Kg	70.5	NMED SSL	
0681-SS-2AM-SO	280-15708-4	5/9/2011	0-0.5	Chromium	7440-47-3	4.9		3.5	0.057	mg/Kg	96.6	NMED SSL	
0681-SS-2AM-SO	280-15708-4	5/9/2011	0-0.5	Lead	7439-92-1	5.8		0.89	0.27	mg/Kg	200	EPA RSL	
0681-SS-2AM-SO	280-15708-4	5/9/2011	0-0.5	Mercury	7439-97-6	0.012	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0681-SS-2BM-SO	280-15708-5	5/9/2011	0-0.5	Arsenic	7440-38-2	0.96	J	2.4	0.63	mg/Kg	7.07	NMED SSL	
0681-SS-2BM-SO	280-15708-5	5/9/2011	0-0.5	Barium	7440-39-3	120		1.9	0.073	mg/Kg	4390	NMED SSL	
0681-SS-2BM-SO	280-15708-5	5/9/2011	0-0.5	Cadmium	7440-43-9	0.055	J	0.48	0.039	mg/Kg	70.5	NMED SSL	
0681-SS-2BM-SO	280-15708-5	5/9/2011	0-0.5	Chromium	7440-47-3	5.1		3.3	0.055	mg/Kg	96.6	NMED SSL	
0681-SS-2BM-SO	280-15708-5	5/9/2011	0-0.5	Lead	7439-92-1	4.2		0.86	0.26	mg/Kg	200	EPA RSL	
0681-SS-2BM-SO	280-15708-5	5/9/2011	0-0.5	Mercury	7439-97-6	0.0093	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0681-SS-3AM-SO	280-15708-6	5/9/2011	0-0.5	Arsenic	7440-38-2	1.6	J	2.3	0.61	mg/Kg	7.07	NMED SSL	
0681-SS-3AM-SO	280-15708-6	5/9/2011	0-0.5	Barium	7440-39-3	180		1.9	0.071	mg/Kg	4390	NMED SSL	
0681-SS-3AM-SO	280-15708-6	5/9/2011	0-0.5	Cadmium	7440-43-9	0.065	J	0.46	0.038	mg/Kg	70.5	NMED SSL	
0681-SS-3AM-SO	280-15708-6	5/9/2011	0-0.5	Chromium	7440-47-3	5.2		3.2	0.054	mg/Kg	96.6	NMED SSL	
0681-SS-3AM-SO	280-15708-6	5/9/2011	0-0.5	Lead	7439-92-1	5.5		0.84	0.25	mg/Kg	200	EPA RSL	

Table B.8-2 Parcel 6 AOC81: Method 6010B/7471A Metals soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0681-SS-3AM-SO	280-15708-6	5/9/2011	0-0.5	Mercury	7439-97-6	0.011	J	0.032	0.0054	mg/kg	20.7	NMED SSL	
0681-SS-3BM-SO	280-15708-7	5/9/2011	0-0.5	Arsenic	7440-38-2	1.1	J	2.4	0.63	mg/Kg	7.07	NMED SSL	
0681-SS-3BM-SO	280-15708-7	5/9/2011	0-0.5	Barium	7440-39-3	130		1.9	0.072	mg/Kg	4390	NMED SSL	
0681-SS-3BM-SO	280-15708-7	5/9/2011	0-0.5	Cadmium	7440-43-9	0.046	J	0.48	0.039	mg/Kg	70.5	NMED SSL	
0681-SS-3BM-SO	280-15708-7	5/9/2011	0-0.5	Chromium	7440-47-3	4.4		3.3	0.055	mg/Kg	96.6	NMED SSL	
0681-SS-3BM-SO	280-15708-7	5/9/2011	0-0.5	Lead	7439-92-1	4.3		0.86	0.26	mg/Kg	200	EPA RSL	
0681-SS-3BM-SO	280-15708-7	5/9/2011	0-0.5	Mercury	7439-97-6	0.01	J	0.033	0.0055	mg/kg	20.7	NMED SSL	

Notes:

CAS	Chemical Abstracts Service
DC	Direct Contact
DL	Detection Limit
DUP	Duplicate
EPA	Environmental Protection Agency
HH	Human Health
ID	Identification
LOD	Limit of Detection
LOQ	Limit of Quantiation
mg/kg	milligrams per kilogram
NMED	New Mexico Environment Department
NS	No Standard
RCRA	Resource Conservation and Recovery Act
RSL	Regional Screening Level
SSL	Soil Screening Level
SWMU	Soil Waste Management Unit

Lab Qualifier Codes:

Organics

J	Indicates that the analyte is positively identified and the result is less than the LOQ but greater than the DL.
U	Not detected at the LOD

Validation Qualifier Codes:

J	The analyte was positively identified; the associated numerical value is the approximate concentration
U	Not detected at or above the LOD.

Sample ID nomenclature:

Sample ID's consist of a combination of Parcel, AOC, additional site identifier, purpose of sample, increment number, sample depth, sample type, and matrix.

Example: 0608B537AEC-0.0-0.5D-SO
Parcel: 06
SWMU: 08

Additional Site Identifier: B537 (in this case it's Building 537)
Source of Sample: A (in this case it's Building 537 Area A)
Purpose of Sample: EC (excavation confirmation)
Sample Depth: Depth of samples will be designated with a 4-digit number, the first 2 digits starting depth, second 2 digits bottom depth (in this case 0.0 to 0.5 feet)
Sample Type: D (Discrete)
Sample Matrix: SO (soil) (in this case soil)
DUP = Field Duplicate (when applicable)

Screening level exceedances indicated by red result and a yellow highlighted "YES".

1. Excavated - Sample location was excavated during the Permittee-Initiated Interim Measure.

+ Scree ing Level Sources:

NMED SSL and EPA RSL	The HH DC Value selected is the lowest NMED Direct Contact Screening Level (for residents, industrial/occupational workers, and construction workers) via NMED Risk Assessment Guidance for Site Investigations and Remediation, November 2022 Revised. If there is no NMED Direct Contact Screening Level, the lowest EPA Residential RSL is selected for a target excess cancer risk level of 1 x 10-5 or target noncancer hazard quotient of 1.0 (November 2024). The most recent screening levels published by NMED and USEPA at the time the risk evaluation is conducted will be used in the risk evaluation.

Table B.9-1 Parcel 6 AOC 83: Sample Locations with Associated Sample Identifiers
Fort Wingate Depot Activity, Gallup, NM.

Sample ID	Northing (UTM)	Easting (UTM)	Date	Time
0683-SS-1M-SO	3931815.00	717953.81	5/6/2011	10:10
	3931804.19	717981.84	5/6/2011	10:10
	3931775.91	717971.03	5/6/2011	10:10
	3931786.85	717942.63	5/6/2011	10:10
0683-SS-2M-SO	3931804.19	717981.84	5/6/2011	12:30
	3931793.26	718010.24	5/6/2011	12:30
	3931764.98	717999.43	5/6/2011	12:30
	3931775.91	717971.03	5/6/2011	12:30
0683-SS-3M-SO	3931764.98	717999.43	5/6/2011	11:10
	3931775.91	717971.03	5/6/2011	11:10
	3931747.51	717960.22	5/6/2011	11:10
	3931736.57	717988.62	5/6/2011	11:10
0683-SS-4M-SO	3931747.51	717960.22	5/5/2011	15:10
	3931736.57	717988.62	5/5/2011	15:10
	3931708.42	717977.44	5/5/2011	15:10
	3931718.98	717949.29	5/5/2011	15:10
0683-SS-5M-SO	3931758.32	717931.82	5/5/2011	16:10
	3931747.51	717960.22	5/5/2011	16:10
	3931718.98	717949.29	5/5/2011	16:10
	3931729.79	717921.01	5/5/2011	16:10
0683-SS-6M-SO	3931775.91	717971.03	5/6/2011	13:10
	3931786.85	717942.63	5/6/2011	13:10
	3931758.32	717931.82	5/6/2011	13:10
	3931747.51	717960.22	5/6/2011	13:10
Trench 1	3931771.346	717966.925		
	3931771.482	717972.051		
	3931760.996	717972.537		
	3931760.743	717967.41		
Trench 2	3931735.666	717952.802		
	3931736.013	717957.371		
	3931726.954	717957.532		
	3931726.927	717952.935		

Table B.9-1 Parcel 6 AOC 83: Sample Locations with Associated Sample Identifiers
Fort Wingate Depot Activity, Gallup, NM.

	Sample ID	Northing (UTM)	Easting (UTM)	Date	Time
	Trench 3	3931734.597	717934.818		
		3931734.971	717940.109		
		3931725.003	717940.403		
		3931724.87	717935.219		

[0]Northing and Easting values determined through surveyence with topcom bay station model

Local ID (identifier) qualifiers:

SO- Soil Sample

SS-Surface Sample

BM- Multi Incremental 1 ft. bgs

AM- Multi Incremental <1 ft. bgs

SB- Soil Boring

Table B.9-2 Parcel 6 AOC83: Method 6010B/7471A Metals soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0683-SS-1AM-SO	280-15597-1	5/6/2011	0-0.5	Arsenic	7440-38-2	1.7	J	2.5	0.66	mg/Kg	7.07	NMED SSL	
0683-SS-1AM-SO	280-15597-1	5/6/2011	0-0.5	Barium	7440-39-3	210		2	0.076	mg/Kg	4390	NMED SSL	
0683-SS-1AM-SO	280-15597-1	5/6/2011	0-0.5	Cadmium	7440-43-9	0.57		0.5	0.041	mg/Kg	70.5	NMED SSL	
0683-SS-1AM-SO	280-15597-1	5/6/2011	0-0.5	Chromium	7440-47-3	9.1		3.5	0.058	mg/Kg	96.6	NMED SSL	
0683-SS-1AM-SO	280-15597-1	5/6/2011	0-0.5	Lead	7439-92-1	9.3		0.9	0.27	mg/Kg	200	EPA RSL	
0683-SS-1AM-SO	280-15597-1	5/6/2011	0-0.5	Mercury	7439-97-6	0.021	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0683-SS-1BM-SO	280-15597-3	5/6/2011	0-0.5	Arsenic	7440-38-2	1.8	J	2.3	0.62	mg/Kg	7.07	NMED SSL	
0683-SS-1BM-SO	280-15597-3	5/6/2011	0-0.5	Barium	7440-39-3	220		1.9	0.071	mg/Kg	4390	NMED SSL	
0683-SS-1BM-SO	280-15597-3	5/6/2011	0-0.5	Cadmium	7440-43-9	0.38	J	0.47	0.039	mg/Kg	70.5	NMED SSL	
0683-SS-1BM-SO	280-15597-3	5/6/2011	0-0.5	Chromium	7440-47-3	7.5		3.3	0.055	mg/Kg	96.6	NMED SSL	
0683-SS-1BM-SO	280-15597-3	5/6/2011	0-0.5	Lead	7439-92-1	7.2		0.85	0.25	mg/Kg	200	EPA RSL	
0683-SS-1BM-SO	280-15597-3	5/6/2011	0-0.5	Mercury	7439-97-6	0.014	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0683-SS-2AM-SO	280-15597-6	5/6/2011	0-0.5	Arsenic	7440-38-2	1.7	J	2.4	0.64	mg/Kg	7.07	NMED SSL	
0683-SS-2AM-SO	280-15597-6	5/6/2011	0-0.5	Barium	7440-39-3	400		2	0.074	mg/Kg	4390	NMED SSL	
0683-SS-2AM-SO	280-15597-6	5/6/2011	0-0.5	Cadmium	7440-43-9	0.88		0.49	0.04	mg/Kg	70.5	NMED SSL	
0683-SS-2AM-SO	280-15597-6	5/6/2011	0-0.5	Chromium	7440-47-3	7.7		3.4	0.057	mg/Kg	96.6	NMED SSL	
0683-SS-2AM-SO	280-15597-6	5/6/2011	0-0.5	Lead	7439-92-1	8		0.88	0.26	mg/Kg	200	EPA RSL	
0683-SS-2AM-SO	280-15597-6	5/6/2011	0-0.5	Mercury	7439-97-6	0.0068	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0683-SS-2BM-SO	280-15597-7	5/6/2011	0-0.5	Arsenic	7440-38-2	2	J	2.3	0.61	mg/Kg	7.07	NMED SSL	
0683-SS-2BM-SO	280-15597-7	5/6/2011	0-0.5	Barium	7440-39-3	360		1.8	0.07	mg/Kg	4390	NMED SSL	
0683-SS-2BM-SO	280-15597-7	5/6/2011	0-0.5	Cadmium	7440-43-9	0.14	J	0.46	0.038	mg/Kg	70.5	NMED SSL	
0683-SS-2BM-SO	280-15597-7	5/6/2011	0-0.5	Chromium	7440-47-3	7.5		3.2	0.053	mg/Kg	96.6	NMED SSL	
0683-SS-2BM-SO	280-15597-7	5/6/2011	0-0.5	Lead	7439-92-1	7.4		0.83	0.25	mg/Kg	200	EPA RSL	
0683-SS-2BM-SO	280-15597-7	5/6/2011	0-0.5	Mercury	7439-97-6	0.0091	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0683-SS-3AM-SO	280-15597-8	5/6/2011	0-0.5	Arsenic	7440-38-2	1.8	J	2.3	0.6	mg/Kg	7.07	NMED SSL	
0683-SS-3AM-SO	280-15597-8	5/6/2011	0-0.5	Barium	7440-39-3	360		1.8	0.07	mg/Kg	4390	NMED SSL	
0683-SS-3AM-SO	280-15597-8	5/6/2011	0-0.5	Cadmium	7440-43-9	0.28	J	0.46	0.038	mg/Kg	70.5	NMED SSL	
0683-SS-3AM-SO	280-15597-8	5/6/2011	0-0.5	Chromium	7440-47-3	7.5		3.2	0.053	mg/Kg	96.6	NMED SSL	
0683-SS-3AM-SO	280-15597-8	5/6/2011	0-0.5	Lead	7439-92-1	7.2		0.82	0.25	mg/Kg	200	EPA RSL	

Table B.9-2 Parcel 6 AOC83: Method 6010B/7471A Metals soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0683-SS-3AM-SO	280-15597-8	5/6/2011	0-0.5	Mercury	7439-97-6	0.01	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0683-SS-3BM-SO	280-15597-9	5/6/2011	0-0.5	Arsenic	7440-38-2	1.4	J	2.4	0.64	mg/Kg	7.07	NMED SSL	
0683-SS-3BM-SO	280-15597-9	5/6/2011	0-0.5	Barium	7440-39-3	470		1.9	0.074	mg/Kg	4390	NMED SSL	
0683-SS-3BM-SO	280-15597-9	5/6/2011	0-0.5	Cadmium	7440-43-9	0.25	J	0.48	0.04	mg/Kg	70.5	NMED SSL	
0683-SS-3BM-SO	280-15597-9	5/6/2011	0-0.5	Chromium	7440-47-3	8		3.4	0.056	mg/Kg	96.6	NMED SSL	
0683-SS-3BM-SO	280-15597-9	5/6/2011	0-0.5	Lead	7439-92-1	6.9		0.87	0.26	mg/Kg	200	EPA RSL	
0683-SS-3BM-SO	280-15597-9	5/6/2011	0-0.5	Mercury	7439-97-6	0.0074	J	0.031	0.0051	mg/kg	20.7	NMED SSL	
0683-SS-4AM-SO	280-15597-13	5/5/2011	0-0.5	Arsenic	7440-38-2	1.9	J	2.4	0.64	mg/Kg	7.07	NMED SSL	
0683-SS-4AM-SO	280-15597-13	5/5/2011	0-0.5	Barium	7440-39-3	330		1.9	0.074	mg/Kg	4390	NMED SSL	
0683-SS-4AM-SO	280-15597-13	5/5/2011	0-0.5	Cadmium	7440-43-9	0.26	J	0.48	0.04	mg/Kg	70.5	NMED SSL	
0683-SS-4AM-SO	280-15597-13	5/5/2011	0-0.5	Chromium	7440-47-3	6.2		3.4	0.056	mg/Kg	96.6	NMED SSL	
0683-SS-4AM-SO	280-15597-13	5/5/2011	0-0.5	Lead	7439-92-1	6.8		0.87	0.26	mg/Kg	200	EPA RSL	
0683-SS-4AM-SO	280-15597-13	5/5/2011	0-0.5	Mercury	7439-97-6	0.011	J	0.032	0.0053	mg/kg	20.7	NMED SSL	
0683-SS-4BM-SO	280-15597-15	5/5/2011	0-0.5	Arsenic	7440-38-2	1.5	J	2.5	0.66	mg/Kg	7.07	NMED SSL	
0683-SS-4BM-SO	280-15597-15	5/5/2011	0-0.5	Barium	7440-39-3	400		2	0.075	mg/Kg	4390	NMED SSL	
0683-SS-4BM-SO	280-15597-15	5/5/2011	0-0.5	Cadmium	7440-43-9	0.27	J	0.5	0.041	mg/Kg	70.5	NMED SSL	
0683-SS-4BM-SO	280-15597-15	5/5/2011	0-0.5	Chromium	7440-47-3	7.4		3.5	0.058	mg/Kg	96.6	NMED SSL	
0683-SS-4BM-SO	280-15597-15	5/5/2011	0-0.5	Lead	7439-92-1	6.5		0.89	0.27	mg/Kg	200	EPA RSL	
0683-SS-4BM-SO	280-15597-15	5/5/2011	0-0.5	Mercury	7439-97-6	0.0087	J	0.031	0.0052	mg/kg	20.7	NMED SSL	
0683-SS-5AM-SO	280-15597-16	5/5/2011	0-0.5	Arsenic	7440-38-2	2.1	J	2.5	0.65	mg/Kg	7.07	NMED SSL	
0683-SS-5AM-SO	280-15597-16	5/5/2011	0-0.5	Barium	7440-39-3	280		2	0.075	mg/Kg	4390	NMED SSL	
0683-SS-5AM-SO	280-15597-16	5/5/2011	0-0.5	Cadmium	7440-43-9	0.46	J	0.49	0.04	mg/Kg	70.5	NMED SSL	
0683-SS-5AM-SO	280-15597-16	5/5/2011	0-0.5	Chromium	7440-47-3	8.8		3.4	0.057	mg/Kg	96.6	NMED SSL	
0683-SS-5AM-SO	280-15597-16	5/5/2011	0-0.5	Lead	7439-92-1	8.8		0.88	0.27	mg/Kg	200	EPA RSL	
0683-SS-5AM-SO	280-15597-16	5/5/2011	0-0.5	Mercury	7439-97-6	0.012	J	0.032	0.0054	mg/kg	20.7	NMED SSL	
0683-SS-5BM-SO	280-15597-17	5/5/2011	0-0.5	Arsenic	7440-38-2	2	J	2.5	0.66	mg/Kg	7.07	NMED SSL	
0683-SS-5BM-SO	280-15597-17	5/5/2011	0-0.5	Barium	7440-39-3	250		2	0.076	mg/Kg	4390	NMED SSL	
0683-SS-5BM-SO	280-15597-17	5/5/2011	0-0.5	Cadmium	7440-43-9	0.17	J	0.5	0.041	mg/Kg	70.5	NMED SSL	
0683-SS-5BM-SO	280-15597-17	5/5/2011	0-0.5	Chromium	7440-47-3	8.1		3.5	0.058	mg/Kg	96.6	NMED SSL	

Table B.9-2 Parcel 6 AOC83: Method 6010B/7471A Metals soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0683-SS-5BM-SO	280-15597-17	5/5/2011	0-0.5	Lead	7439-92-1	7.9		0.9	0.27	mg/Kg	200	EPA RSL	
0683-SS-5BM-SO	280-15597-17	5/5/2011	0-0.5	Mercury	7439-97-6	0.0085	J	0.032	0.0054	mg/kg	20.7	NMED SSL	
0683-SS-6AM-SO	280-15597-12	5/6/2011	0-0.5	Arsenic	7440-38-2	2	J	2.4	0.64	mg/Kg	7.07	NMED SSL	
0683-SS-6AM-SO	280-15597-12	5/6/2011	0-0.5	Barium	7440-39-3	270		1.9	0.073	mg/Kg	4390	NMED SSL	
0683-SS-6AM-SO	280-15597-12	5/6/2011	0-0.5	Cadmium	7440-43-9	0.74		0.48	0.04	mg/Kg	70.5	NMED SSL	
0683-SS-6AM-SO	280-15597-12	5/6/2011	0-0.5	Chromium	7440-47-3	8.7		3.4	0.056	mg/Kg	96.6	NMED SSL	
0683-SS-6AM-SO	280-15597-12	5/6/2011	0-0.5	Lead	7439-92-1	8.3		0.87	0.26	mg/Kg	200	EPA RSL	
0683-SS-6AM-SO	280-15597-12	5/6/2011	0-0.5	Mercury	7439-97-6	0.013	J	0.032	0.0054	mg/kg	20.7	NMED SSL	
0683-SS-6BM-SO	280-15597-10	5/6/2011	0-0.5	Arsenic	7440-38-2	1.7	J	2.5	0.65	mg/Kg	7.07	NMED SSL	
0683-SS-6BM-SO	280-15597-10	5/6/2011	0-0.5	Barium	7440-39-3	260		2	0.075	mg/Kg	4390	NMED SSL	
0683-SS-6BM-SO	280-15597-10	5/6/2011	0-0.5	Cadmium	7440-43-9	0.64		0.5	0.041	mg/Kg	70.5	NMED SSL	
0683-SS-6BM-SO	280-15597-10	5/6/2011	0-0.5	Chromium	7440-47-3	7.4		3.5	0.057	mg/Kg	96.6	NMED SSL	
0683-SS-6BM-SO	280-15597-10	5/6/2011	0-0.5	Lead	7439-92-1	7.4		0.89	0.27	mg/Kg	200	EPA RSL	
0683-SS-6BM-SO	280-15597-10	5/6/2011	0-0.5	Mercury	7439-97-6	0.0091	J	0.033	0.0055	mg/kg	20.7	NMED SSL	

Notes:

CAS	Chemical Abstracts Service
DC	Direct Contact
DL	Detection Limit
DUP	Duplicate
EPA	Environmental Protection Agency
HH	Human Health
ID	Identification
LOD	Limit of Detection
LOQ	Limit of Quantiation
mg/kg	milligrams per kilogram
NMED	New Mexico Environment Department
NS	No Standard
RCRA	Resource Conservation and Recovery Act
RSL	Regional Screening Level
SSL	Soil Screening Level
SWMU	Soil Waste Management Unit

Lab Qualifier Codes:

Organics

J	Indicates that the analyte is positively identified and the result is less than the LOQ but greater than the DL.
U	Not detected at the LOD

Validation Qualifier Codes:

J	The analyte was positively identified; the associated numerical value is the approximate concentration
U	Not detected at or above the LOD.

Sample ID nomenclature:

Sample ID's consist of a combination of Parcel, AOC, additional site identifier, purpose of sample, increment number, sample depth, sample type, and matrix.

Example: 0608B537AEC-0.0-0.5D-SO
Parcel: 06
SWMU: 08

Additional Site Identifier: B537 (in this case it's Building 537)
Source of Sample: A (in this case it's Building 537 Area A)
Purpose of Sample: EC (excavation confirmation)
Sample Depth: Depth of samples will be designated with a 4-digit number, the first 2 digits starting depth, second 2 digits bottom depth (in this case 0.0 to 0.5 feet)
Sample Type: D (Discrete)
Sample Matrix: SO (soil) (in this case soil)
DUP = Field Duplicate (when applicable)

Screening level exceedances indicated by red result and a yellow highlighted "YES".

1. Excavated - Sample location was excavated during the Permittee-Initiated Interim Measure.

+ Screening Level Sources:

NMED SSL and EPA RSL	The HH DC Value selected is the lowest NMED Direct Contact Screening Level (for residents, industrial/occupational workers, and construction workers) via NMED Risk Assessment Guidance for Site Investigations and Remediation, November 2022 Revised. If there is no NMED Direct Contact Screening Level, the lowest EPA Residential RSL is selected for a target excess cancer risk level of 1 x 10-5 or target noncancer hazard quotient of 1.0 (November 2024). The most recent screening levels published by NMED and USEPA at the time the risk evaluation is conducted will be used in the risk evaluation.

Table B.10-1 Parcel 6 AOC 84: Sample Locations with Associated Sample Identifiers
Fort Wingate Depot Activity, Gallup, NM.

Sample ID	Northing (UTM)	Easting (UTM)	Date	Time
0684-SS-1M-SO	3931832.84	717492.64	5/3/2011	14:10
	3931832.84	717523.15	5/3/2011	14:10
	3931802.43	717523.15	5/3/2011	14:10
	3931802.53	717492.64	5/3/2011	14:10
0684-SS-2M-SO	3931832.84	717523.15	5/4/2011	14:10
	3931832.84	717553.46	5/4/2011	14:10
	3931802.43	717553.77	5/4/2011	14:10
	3931802.43	717523.15	5/4/2011	14:10
0684-SS-3M-SO	3931802.43	717553.77	5/4/2011	14:30
	3931802.43	717523.15	5/4/2011	14:30
	3931771.81	717523.05	5/4/2011	14:30
	3931772.12	717553.56	5/4/2011	14:30
0684-SS-4M-SO	3931802.43	717523.15	5/4/2011	12:10
	3931802.53	717492.64	5/4/2011	12:10
	3931772.01	717492.64	5/4/2011	12:10
	3931771.81	717523.05	5/4/2011	12:10
0684-SS-5M-SO	3931790.36	717643.36	5/5/2011	9:10
	3931787.65	717673.48	5/5/2011	9:10
	3931757.44	717670.68	5/5/2011	9:10
	3931760.15	717640.47	5/5/2011	9:10
0684-SS-6M-SO	3931787.65	717673.48	5/5/2011	10:50
	3931784.86	717703.78	5/5/2011	10:50
	3931754.74	717701.07	5/5/2011	10:50
	3931757.44	717670.68	5/5/2011	10:50
0684-SS-7M-SO	3931754.74	717701.07	5/5/2011	12:10
	3931757.44	717670.68	5/5/2011	12:10
	3931727.23	717667.89	5/5/2011	12:10
	3931724.43	717698.28	5/5/2011	12:10
0684-SS-8M-SO	3931757.44	717670.68	5/5/2011	10:10
	3931760.15	717640.47	5/5/2011	10:10
	3931729.94	717637.59	5/5/2011	10:10
	3931727.23	717667.89	5/5/2011	10:10

Table B.10-1 Parcel 6 AOC 84: Sample Locations with Associated Sample Identifiers
Fort Wingate Depot Activity, Gallup, NM.

Sample ID	Northing (UTM)	Easting (UTM)	Date	Time

[0]Northing and Easting values determined through surveyence with topcom bay station model

Local ID (identifier) qualifiers:

SO- Soil Sample

SS-Surface Sample

BM- Multi Incremental 1 ft. bgs

AM- Multi Incremental <1 ft. bgs

SB- Soil Boring

Table B.10-2 Parcel 6 AOC84: Method 6010B/7471A Metals soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0684-SS-1AM-SO	280-15480-1	5/3/2011	0-0.5	Arsenic	7440-38-2	2.2	J	2.5	0.66	mg/Kg	7.07	NMED SSL	
0684-SS-1AM-SO	280-15480-1	5/3/2011	0-0.5	Barium	7440-39-3	140	J	2	0.076	mg/Kg	4390	NMED SSL	
0684-SS-1AM-SO	280-15480-1	5/3/2011	0-0.5	Cadmium	7440-43-9	0.078	J	0.5	0.041	mg/Kg	70.5	NMED SSL	
0684-SS-1AM-SO	280-15480-1	5/3/2011	0-0.5	Chromium	7440-47-3	4.2		3.5	0.058	mg/Kg	96.6	NMED SSL	
0684-SS-1AM-SO	280-15480-1	5/3/2011	0-0.5	Lead	7439-92-1	5.5	J	0.9	0.27	mg/Kg	200	EPA RSL	
0684-SS-1AM-SO	280-15480-1	5/3/2011	0-0.5	Mercury	7439-97-6	0.0086	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0684-SS-1BM-SO	280-15480-3	5/3/2011	0-0.5	Arsenic	7440-38-2	2.6	J	2.5	0.66	mg/Kg	7.07	NMED SSL	
0684-SS-1BM-SO	280-15480-3	5/3/2011	0-0.5	Barium	7440-39-3	160	J	2	0.076	mg/Kg	4390	NMED SSL	
0684-SS-1BM-SO	280-15480-3	5/3/2011	0-0.5	Cadmium	7440-43-9	0.1	J	0.5	0.041	mg/Kg	70.5	NMED SSL	
0684-SS-1BM-SO	280-15480-3	5/3/2011	0-0.5	Chromium	7440-47-3	5.5		3.5	0.058	mg/Kg	96.6	NMED SSL	
0684-SS-1BM-SO	280-15480-3	5/3/2011	0-0.5	Lead	7439-92-1	6.3	J	0.9	0.27	mg/Kg	200	EPA RSL	
0684-SS-1BM-SO	280-15480-3	5/3/2011	0-0.5	Mercury	7439-97-6	0.014	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0684-SS-2AM-SO	280-15480-4	5/4/2011	0-0.5	Arsenic	7440-38-2	1.9	J	2.5	0.65	mg/Kg	7.07	NMED SSL	
0684-SS-2AM-SO	280-15480-4	5/4/2011	0-0.5	Barium	7440-39-3	130	J	2	0.075	mg/Kg	4390	NMED SSL	
0684-SS-2AM-SO	280-15480-4	5/4/2011	0-0.5	Cadmium	7440-43-9	0.081	J	0.49	0.041	mg/Kg	70.5	NMED SSL	
0684-SS-2AM-SO	280-15480-4	5/4/2011	0-0.5	Chromium	7440-47-3	3.5		3.5	0.057	mg/Kg	96.6	NMED SSL	
0684-SS-2AM-SO	280-15480-4	5/4/2011	0-0.5	Lead	7439-92-1	4.5	J	0.89	0.27	mg/Kg	200	EPA RSL	
0684-SS-2AM-SO	280-15480-4	5/4/2011	0-0.5	Mercury	7439-97-6	0.0068	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0684-SS-2BM-SO	280-15480-5	5/4/2011	0-0.5	Arsenic	7440-38-2	2.1	J	2.5	0.65	mg/Kg	7.07	NMED SSL	
0684-SS-2BM-SO	280-15480-5	5/4/2011	0-0.5	Barium	7440-39-3	140	J	2	0.075	mg/Kg	4390	NMED SSL	
0684-SS-2BM-SO	280-15480-5	5/4/2011	0-0.5	Cadmium	7440-43-9	0.063	J	0.49	0.041	mg/Kg	70.5	NMED SSL	
0684-SS-2BM-SO	280-15480-5	5/4/2011	0-0.5	Chromium	7440-47-3	4		3.5	0.057	mg/Kg	96.6	NMED SSL	
0684-SS-2BM-SO	280-15480-5	5/4/2011	0-0.5	Lead	7439-92-1	5	J	0.89	0.27	mg/Kg	200	EPA RSL	
0684-SS-2BM-SO	280-15480-5	5/4/2011	0-0.5	Mercury	7439-97-6	0.0077	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0684-SS-3AM-SO	280-15480-6	5/4/2011	0-0.5	Arsenic	7440-38-2	2.1	J	2.5	0.66	mg/Kg	7.07	NMED SSL	
0684-SS-3AM-SO	280-15480-6	5/4/2011	0-0.5	Barium	7440-39-3	130	J	2	0.076	mg/Kg	4390	NMED SSL	
0684-SS-3AM-SO	280-15480-6	5/4/2011	0-0.5	Cadmium	7440-43-9	0.08	J	0.5	0.041	mg/Kg	70.5	NMED SSL	
0684-SS-3AM-SO	280-15480-6	5/4/2011	0-0.5	Chromium	7440-47-3	3.9		3.5	0.058	mg/Kg	96.6	NMED SSL	
0684-SS-3AM-SO	280-15480-6	5/4/2011	0-0.5	Lead	7439-92-1	4.7	J	0.89	0.27	mg/Kg	200	EPA RSL	

Table B.10-2 Parcel 6 AOC84: Method 6010B/7471A Metals soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0684-SS-3AM-SO	280-15480-6	5/4/2011	0-0.5	Mercury	7439-97-6	0.007	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0684-SS-3BM-SO	280-15480-7	5/4/2011	0-0.5	Arsenic	7440-38-2	2	J	2.4	0.63	mg/Kg	7.07	NMED SSL	
0684-SS-3BM-SO	280-15480-7	5/4/2011	0-0.5	Barium	7440-39-3	120	J	1.9	0.073	mg/Kg	4390	NMED SSL	
0684-SS-3BM-SO	280-15480-7	5/4/2011	0-0.5	Cadmium	7440-43-9	0.052	J	0.48	0.039	mg/Kg	70.5	NMED SSL	
0684-SS-3BM-SO	280-15480-7	5/4/2011	0-0.5	Chromium	7440-47-3	3.6		3.4	0.056	mg/Kg	96.6	NMED SSL	
0684-SS-3BM-SO	280-15480-7	5/4/2011	0-0.5	Lead	7439-92-1	4.4	J	0.86	0.26	mg/Kg	200	EPA RSL	
0684-SS-3BM-SO	280-15480-7	5/4/2011	0-0.5	Mercury	7439-97-6	0.0082	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0684-SS-4AM-SO	280-15480-8	5/4/2011	0-0.5	Arsenic	7440-38-2	2.2	J	2.4	0.64	mg/Kg	7.07	NMED SSL	
0684-SS-4AM-SO	280-15480-8	5/4/2011	0-0.5	Barium	7440-39-3	150	J	1.9	0.074	mg/Kg	4390	NMED SSL	
0684-SS-4AM-SO	280-15480-8	5/4/2011	0-0.5	Cadmium	7440-43-9	0.092	J	0.49	0.04	mg/Kg	70.5	NMED SSL	
0684-SS-4AM-SO	280-15480-8	5/4/2011	0-0.5	Chromium	7440-47-3	4.8		3.4	0.056	mg/Kg	96.6	NMED SSL	
0684-SS-4AM-SO	280-15480-8	5/4/2011	0-0.5	Lead	7439-92-1	6.3	J	0.88	0.26	mg/Kg	200	EPA RSL	
0684-SS-4AM-SO	280-15480-8	5/4/2011	0-0.5	Mercury	7439-97-6	0.014	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0684-SS-4BM-SO	280-15480-9	5/4/2011	0-0.5	Arsenic	7440-38-2	2.5	J	2.5	0.66	mg/Kg	7.07	NMED SSL	
0684-SS-4BM-SO	280-15480-9	5/4/2011	0-0.5	Barium	7440-39-3	170	J	2	0.076	mg/Kg	4390	NMED SSL	
0684-SS-4BM-SO	280-15480-9	5/4/2011	0-0.5	Cadmium	7440-43-9	0.097	J	0.5	0.041	mg/Kg	70.5	NMED SSL	
0684-SS-4BM-SO	280-15480-9	5/4/2011	0-0.5	Chromium	7440-47-3	5.8		3.5	0.058	mg/Kg	96.6	NMED SSL	
0684-SS-4BM-SO	280-15480-9	5/4/2011	0-0.5	Lead	7439-92-1	7.2	J	0.89	0.27	mg/Kg	200	EPA RSL	
0684-SS-4BM-SO	280-15480-9	5/4/2011	0-0.5	Mercury	7439-97-6	0.021	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0684-SS-5AM-SO	280-15597-18	5/5/2011	0-0.5	Arsenic	7440-38-2	1.7	J	2.5	0.65	mg/Kg	7.07	NMED SSL	
0684-SS-5AM-SO	280-15597-18	5/5/2011	0-0.5	Barium	7440-39-3	120		2	0.075	mg/Kg	4390	NMED SSL	
0684-SS-5AM-SO	280-15597-18	5/5/2011	0-0.5	Cadmium	7440-43-9	0.044	J	0.49	0.04	mg/Kg	70.5	NMED SSL	
0684-SS-5AM-SO	280-15597-18	5/5/2011	0-0.5	Chromium	7440-47-3	3	J	3.5	0.057	mg/Kg	96.6	NMED SSL	
0684-SS-5AM-SO	280-15597-18	5/5/2011	0-0.5	Lead	7439-92-1	4.5		0.89	0.27	mg/Kg	200	EPA RSL	
0684-SS-5BM-SO	280-15597-19	5/5/2011	0-0.5	Arsenic	7440-38-2	1.6	J	2.4	0.62	mg/Kg	7.07	NMED SSL	
0684-SS-5BM-SO	280-15597-19	5/5/2011	0-0.5	Barium	7440-39-3	110		1.9	0.072	mg/Kg	4390	NMED SSL	
0684-SS-5BM-SO	280-15597-19	5/5/2011	0-0.5	Cadmium	7440-43-9	0.041	J	0.47	0.039	mg/Kg	70.5	NMED SSL	
0684-SS-5BM-SO	280-15597-19	5/5/2011	0-0.5	Chromium	7440-47-3	2.8	J	3.3	0.055	mg/Kg	96.6	NMED SSL	
0684-SS-5BM-SO	280-15597-19	5/5/2011	0-0.5	Lead	7439-92-1	4.3		0.85	0.26	mg/Kg	200	EPA RSL	

Table B.10-2 Parcel 6 AOC84: Method 6010B/7471A Metals soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0684-SS-6AM-SO	280-15597-20	5/5/2011	0-0.5	Arsenic	7440-38-2	2	J	2.4	0.63	mg/Kg	7.07	NMED SSL	
0684-SS-6AM-SO	280-15597-20	5/5/2011	0-0.5	Barium	7440-39-3	130		1.9	0.073	mg/Kg	4390	NMED SSL	
0684-SS-6AM-SO	280-15597-20	5/5/2011	0-0.5	Cadmium	7440-43-9	0.061	J	0.48	0.039	mg/Kg	70.5	NMED SSL	
0684-SS-6AM-SO	280-15597-20	5/5/2011	0-0.5	Chromium	7440-47-3	4		3.4	0.056	mg/Kg	96.6	NMED SSL	
0684-SS-6AM-SO	280-15597-20	5/5/2011	0-0.5	Lead	7439-92-1	5.1		0.87	0.26	mg/Kg	200	EPA RSL	
0684-SS-6AM-SO	280-15597-20	5/5/2011	0-0.5	Mercury	7439-97-6	0.0055	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0684-SS-6BM-SO	280-15597-21	5/5/2011	0-0.5	Arsenic	7440-38-2	1.8	J	2.4	0.64	mg/Kg	7.07	NMED SSL	
0684-SS-6BM-SO	280-15597-21	5/5/2011	0-0.5	Barium	7440-39-3	150		1.9	0.073	mg/Kg	4390	NMED SSL	
0684-SS-6BM-SO	280-15597-21	5/5/2011	0-0.5	Cadmium	7440-43-9	0.05	J	0.48	0.04	mg/Kg	70.5	NMED SSL	
0684-SS-6BM-SO	280-15597-21	5/5/2011	0-0.5	Chromium	7440-47-3	4.5		3.4	0.056	mg/Kg	96.6	NMED SSL	
0684-SS-6BM-SO	280-15597-21	5/5/2011	0-0.5	Lead	7439-92-1	5.1		0.87	0.26	mg/Kg	200	EPA RSL	
0684-SS-6BM-SO	280-15597-21	5/5/2011	0-0.5	Mercury	7439-97-6	0.0072	J	0.03	0.0051	mg/kg	20.7	NMED SSL	
0684-SS-7AM-SO	280-15597-22	5/5/2011	0-0.5	Arsenic	7440-38-2	1.9	J	2.3	0.61	mg/Kg	7.07	NMED SSL	
0684-SS-7AM-SO	280-15597-22	5/5/2011	0-0.5	Barium	7440-39-3	120		1.9	0.071	mg/Kg	4390	NMED SSL	
0684-SS-7AM-SO	280-15597-22	5/5/2011	0-0.5	Cadmium	7440-43-9	0.052	J	0.47	0.038	mg/Kg	70.5	NMED SSL	
0684-SS-7AM-SO	280-15597-22	5/5/2011	0-0.5	Chromium	7440-47-3	3.4		3.3	0.054	mg/Kg	96.6	NMED SSL	
0684-SS-7AM-SO	280-15597-22	5/5/2011	0-0.5	Lead	7439-92-1	5		0.84	0.25	mg/Kg	200	EPA RSL	
0684-SS-7AM-SO	280-15597-22	5/5/2011	0-0.5	Mercury	7439-97-6	0.0057	J	0.031	0.0052	mg/kg	20.7	NMED SSL	
0684-SS-7BM-SO	280-15597-23	5/5/2011	0-0.5	Arsenic	7440-38-2	1.9	J	2.4	0.64	mg/Kg	7.07	NMED SSL	
0684-SS-7BM-SO	280-15597-23	5/5/2011	0-0.5	Barium	7440-39-3	130		1.9	0.074	mg/Kg	4390	NMED SSL	
0684-SS-7BM-SO	280-15597-23	5/5/2011	0-0.5	Cadmium	7440-43-9	0.05	J	0.49	0.04	mg/Kg	70.5	NMED SSL	
0684-SS-7BM-SO	280-15597-23	5/5/2011	0-0.5	Chromium	7440-47-3	4.1		3.4	0.056	mg/Kg	96.6	NMED SSL	
0684-SS-7BM-SO	280-15597-23	5/5/2011	0-0.5	Lead	7439-92-1	5		0.88	0.26	mg/Kg	200	EPA RSL	
0684-SS-7BM-SO	280-15597-23	5/5/2011	0-0.5	Mercury	7439-97-6	0.0057	J	0.032	0.0054	mg/kg	20.7	NMED SSL	
0684-SS-8AM-SO	280-15597-4	5/5/2011	0-0.5	Arsenic	7440-38-2	1.7	J	2.3	0.62	mg/Kg	7.07	NMED SSL	
0684-SS-8AM-SO	280-15597-4	5/5/2011	0-0.5	Barium	7440-39-3	110		1.9	0.071	mg/Kg	4390	NMED SSL	
0684-SS-8AM-SO	280-15597-4	5/5/2011	0-0.5	Cadmium	7440-43-9	0.043	J	0.47	0.038	mg/Kg	70.5	NMED SSL	
0684-SS-8AM-SO	280-15597-4	5/5/2011	0-0.5	Chromium	7440-47-3	3.6		3.3	0.054	mg/Kg	96.6	NMED SSL	
0684-SS-8AM-SO	280-15597-4	5/5/2011	0-0.5	Lead	7439-92-1	4.9		0.84	0.25	mg/Kg	200	EPA RSL	

Table B.10-2 Parcel 6 AOC84: Method 6010B/7471A Metals soil Investigation Detected Constituents

SAMPLE ID	LABORATORY SAMPLE ID	COLLECTION DATE	SAMPLE DEPTH (ft bgs)	ANALYTE	CAS NUMBER	RESULT	QUALIFIER	LABORATORY RL	MDL	UNITS	HH DC VALUE	HUMAN HEALTH DC SCREENING LEVEL SOURCES+	EXCEEDS HH DC LEVEL?
0684-SS-8AM-SO	280-15597-4	5/5/2011	0-0.5	Mercury	7439-97-6	0.0055	J	0.033	0.0055	mg/kg	20.7	NMED SSL	
0684-SS-8BM-SO	280-15597-5	5/5/2011	0-0.5	Arsenic	7440-38-2	1.9	J	2.3	0.6	mg/Kg	7.07	NMED SSL	
0684-SS-8BM-SO	280-15597-5	5/5/2011	0-0.5	Barium	7440-39-3	130		1.8	0.07	mg/Kg	4390	NMED SSL	
0684-SS-8BM-SO	280-15597-5	5/5/2011	0-0.5	Cadmium	7440-43-9	0.038	J	0.46	0.038	mg/Kg	70.5	NMED SSL	
0684-SS-8BM-SO	280-15597-5	5/5/2011	0-0.5	Chromium	7440-47-3	3.8		3.2	0.053	mg/Kg	96.6	NMED SSL	
0684-SS-8BM-SO	280-15597-5	5/5/2011	0-0.5	Lead	7439-92-1	4.6		0.82	0.25	mg/Kg	200	EPA RSL	

Notes:

CAS	**Chemical Abstracts Service**
DC	**Direct Contact**
DL	**Detection Limit**
DUP	**Duplicate**
EPA	**Environmental Protection Agency**
HH	**Human Health**
ID	**Identification**
LOD	**Limit of Detection**
LOQ	**Limit of Quantiation**
mg/kg	**milligrams per kilogram**
NMED	**New Mexico Environment Department**
NS	**No Standard**
RCRA	**Resource Conservation and Recovery Act**
RSL	**Regional Screening Level**
SSL	**Soil Screening Level**
SWMU	**Soil Waste Management Unit**

Lab Qualifier Codes:

Organics

J **Indicates that the analyte is positively identified and the result is less than the LOQ but greater than the DL.**

U **Not detected at the LOD**

Validation Qualifier Codes:

J **The analyte was positively identified; the associated numerical value is the approximate concentration**

U **Not detected at or above the LOD.**

Sample ID nomenclature:

Sample ID's consist of a combination of Parcel, AOC, additional site identifier, purpose of sample, increment number, sample depth, sample type, and matrix.

Example: 0608B537AEC-0.0-0.5D-SO
Parcel: 06
SWMU: 08

Additional Site Identifier: B537 (in this case it's Building 537)
Source of Sample: A (in this case it's Building 537 Area A)
Purpose of Sample: EC (excavation confirmation)
Sample Depth: Depth of samples will be designated with a 4-digit number, the first 2 digits starting depth, second 2 digits bottom depth (in this case 0.0 to 0.5 feet)
Sample Type: D (Discrete)
Sample Matrix: SO (soil) (in this case soil)
DUP = Field Duplicate (when applicable)

Screening level exceedances indicated by red result and a yellow highlighted "YES".

1. Excavated - Sample location was excavated during the Permittee-Initiated Interim Measure.

+ Scree ing Level Sources:

NMED SSL and EPA RSL	**The HH DC Value selected is the lowest NMED Direct Contact Screening Level (for residents, industrial/occupational workers, and construction workers) via NMED Risk Assessment Guidance for Site Investigations and Remediation, November 2022 Revised. If there is no NMED Direct Contact Screening Level, the lowest EPA Residential RSL is selected for a target excess cancer risk level of 1 x 10-5 or target noncancer hazard quotient of 1.0 (November 2024). The most recent screening levels published by NMED and USEPA at the time the risk evaluation is conducted will be used in the risk evaluation.**