



Soil Non-Time-Critical Removal Action Completion Report

Topock Compressor Station, Needles, California

Final

February 2025

Pacific Gas and Electric Company

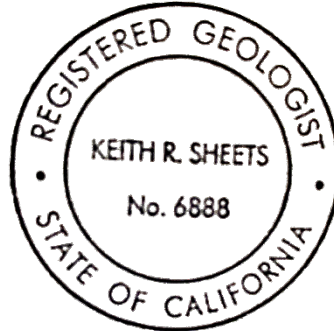


Stamp Page

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Acronyms and Abbreviations

Acronym	Definition
µg/kg	microgram(s) per kilogram
µg/m ³	microgram(s) per cubic meter
95UCL	95% upper confidence limit on the mean
AB	aggregate base
ACM	asbestos-containing material
ADOT	Arizona Department of Transportation
AE	Applied Earthworks
AEG	Advanced Environmental Group, Inc.
AES	Alliance Environmental Services
AMP	Air Monitoring Plan
AMM	avoidance and minimization measure
AOC	area of concern
APE	area of potential effects
ARAR	applicable or relevant and appropriate requirement
BA	Biological Assessment
BCW	Bat Cave Wash
bgs	below ground surface
BIAMP	Bird Impact Avoidance and Minimization Plan
BLM	U.S. Bureau of Land Management
BMP	best management practice
BNSF	BNSF Railway
Cal/OSHA	California Division of Occupational Safety and Health
Caltrans	California Department of Transportation
CCR	California Code of Regulations
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
CFR	Code of Federal Regulations
CHPMP	Cultural and Historical Properties Management Plan
CHQ	Construction Headquarters
CLP	Contract Laboratory Program
CMS/FS	Corrective Measures Study and Feasibility Study
COC	constituent of concern

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Acronym	Definition
COPC	constituent of potential concern
COPEC	constituent of potential ecological concern
County	San Bernardino County
Cr(VI)	hexavalent chromium
CRZ	contamination reduction zone
CSM	conceptual site model
CWG	Consultative Work Group
D/F	dioxins and furans
DOI	U.S. Department of the Interior
DRO	diesel-range organics
DTSC	California Department of Toxic Substances Control
EB	equipment blank
EE/CA	Engineering Evaluation and Cost Analysis
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ERTC	Environmental Release to Construction
ESA	federal Endangered Species Act
EZ	exclusion zone
FD	field duplicate
FMIT	Fort Mojave Indian Tribe
ft ²	square foot (feet)
FWS	U.S. Fish and Wildlife Services
GeoVision	GeoVision Geophysical Services
GRO	gasoline-range organics
GWP	Groundwater Partners, Inc.
HAZWOPER	hazardous waste operations and emergency response
HHERA	Human Health and Ecological Risk Assessment
HNWR	Havasu National Wildlife Refuge
I-40	Interstate 40
ID	identification
LF	linear foot (feet)
LIDAR	light detection and ranging
LOC	level of concern
LUP	Linear Underground/Overhead Project

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Acronym	Definition
m	meter(s)
MDAQMD	Mojave Desert Air Quality Management District
mg/kg	milligram(s) per kilogram
MPe	MP Environmental Services, Inc.
mph	mile(s) per hour
MS/MSD	matrix spike and matrix spike duplicate
MW	monitoring well
NCP	National Contingency Plan
ng/kg	nanogram(s) per kilogram
No.	number
NTH	National Trails Highway
NTCRA	Non-Time-Critical Removal Action
OSHA	Occupational Safety and Health Administration
PA	Programmatic Agreement and Amendment
PAA	potential action area
PAH	polycyclic aromatic hydrocarbons
PCB	polychlorinated biphenyls
PG&E	Pacific Gas and Electric Company
PHSEP	Project Health, Safety, and Environment Plan
PPE	personal protective equipment
ppm	part(s) per million
RAG	removal action goal
RAO	removal action objective
RBC	risk-based concentration
RBRG	risk-based remedial goal
RCRA	Resource Conservation and Recovery Act
RFI/RI	RCRA Facility Investigation and Remedial Investigation
ROW	right-of-way
SEIR	Subsequent Environmental Impact Report
site	Topock Compressor Station site
SMP	Topock Groundwater Remedy Soil Management Plan
SPY	Soil Processing Yard
STLC	soluble threshold limit concentration
SVOC	semivolatile organic compound

Acronym	Definition
SWMU	solid waste management unit
SWPPP	Stormwater Pollution Prevention Plan
TAA	target action area
TBC	guidance to be considered
TCLP	toxicity characteristic leaching procedure
TCS	Topock Compressor Station
TEQ	toxicity equivalent
TPH	total petroleum hydrocarbons
Tribes	Chemehuevi Indian Tribe, Cocopah Tribe, Colorado River Indian Tribes, Fort Mojave Indian Tribe, Fort Yuma Quechan Tribe, Hualapai Tribe, Twenty-nine Palms Band of Mission Indians, Yavapai-Prescott Indian Tribe
TTLIC	total threshold limit concentration
TWB	Transwestern Bench
U.S.	United States
USBR	U.S. Bureau of Reclamation
USC	United States Code
VOC	volatile organic compound
WEAT	Worker Environmental Awareness Training
WMP	Waste Management Plan
XRF	x-ray fluorescence
yd ³	cubic yard(s)

1. Introduction

On October 12, 2021, the U.S. Department of the Interior (DOI) selected a removal action of excavation of contaminated soil and debris at target action areas (TAAs) within the Pacific Gas and Electric Company (PG&E) Topock Compressor Station (TCS) site (site), located in Needles, California. The removal action consisted of the following activities:

- Soil excavation
- Mechanical separation and size separation of rocks, debris, and soil
- Disposal of the contaminated soil and debris in approved and permitted landfills
- Backfilling of the excavated areas to approximate original grades

DOI's decision is documented in an Action Memorandum entitled *Request for a Non-Time-Critical Soil Removal Action at Areas of Concern and Solid Waste Management Units, Pacific Gas and Electric Topock Compressor Station* (DOI 2021).

Subsequently, on October 29, 2021, PG&E submitted a draft Soil Non-Time-Critical Removal Action (NTCRA) Work Plan to present details about PG&E's plan to perform the removal action (Jacobs 2022a). The Soil NTCRA Work Plan was sent to the Consultative Working Group for review and comment. In parallel, the U.S. Bureau of Land Management (BLM) consulted with the following Tribes on the draft Work Plan:

- Chemehuevi Indian Tribe
- Cocopah Tribe
- Colorado River Indian Tribes
- Fort Mojave Indian Tribe (FMIT)
- Fort Yuma Quechan Tribe
- Hualapai Tribe
- Twenty-nine Palms Band of Mission Indians
- Yavapai-Prescott Indian Tribe

Comments were received in December 2021. DOI issued responses to comments in March 2022 and directed PG&E to finalize the Soil NTCRA Work Plan in May 2022. DOI approved the Soil NTCRA Work Plan on June 27, 2022.

PG&E commenced the NTCRA soil removal action on July 25, 2022. Work was completed on May 20, 2024. This Soil NTCRA Completion Report has been prepared to document the fieldwork and compliance with the project objectives, as well as present the results of the field activities.

1.1 Project Background

The TCS is located adjacent to the Colorado River in eastern San Bernardino County, California, approximately 12 miles southeast of Needles, California, north and south of Interstate 40 (I-40) (Figure 1-1; figures are presented at the end of this document). The TCS is an active facility that began operations in 1951. The TCS compresses natural gas supplied from the southwestern United States (U.S.) for transport through pipelines to PG&E's service territory in Central and Northern California (CH2M 2007). CH2M HILL (CH2M) was acquired by Jacobs in 2017.

The area surrounding TCS includes land owned or managed by several private and government entities, including (Figure 1-2):

- PG&E
- BNSF Railway (BNSF)

- San Bernardino County (County)
- BLM
- FMIT
- Metropolitan Water District of Southern California
- U.S. Bureau of Reclamation (USBR)
- Havasu National Wildlife Refuge (HNWR), managed by U.S. Fish and Wildlife Service (FWS)

In addition, several other entities have easements or rights-of-way (ROWS) in the area, including:

- PG&E
- California Department of Transportation (Caltrans)
- City of Needles Electric
- Frontier Communications
- Kinder Morgan, Inc.
- Mojave Pipeline Company
- Southern California Gas Company
- Southwest Gas Corporation
- Transwestern Pipeline Company

The Colorado River, located approximately 1,500 feet to the east of TCS, is a recreational, economic, and cultural resource. The adjacent HNWR is a sensitive ecosystem established to conserve, protect, and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people (Jacobs 2021a).

The Colorado River, HNWR, and the adjacent Topock area are an important part of the sacred ancestral territory for many native peoples.

1.2 Previous Investigations

TCS and the surrounding land has been the subject of numerous environmental investigations since 1997. The nature and extent of soil contamination associated with TCS was evaluated as part of a *Resource Conservation and Recovery Act (RCRA) Facility Investigation and Remedial Investigation (RFI/RI)*. As directed by California Department of Toxic Substances Control (DTSC) (DTSC 2006), reporting of RFI/RI activities and results was separated into three volumes, as follows:

- RFI/RI Report Volume 1, *Revised Final RCRA Facility Investigation/Remedial Investigation Report, Volume 1 – Site Background and History* (CH2M 2007): Detailed site background and history. Additional units were identified after the RFI/RI Report Volume 1 in the *Revised Final Addendum to the RFI/RI, Volume 1* (CH2M 2014a).
- RFI/RI Volume 2, *Revised Final RCRA Facility Investigation/Remedial Investigation Report, PG&E Topock Compressor Station Needles, California, Volume 2 – Hydrogeologic Characterization and Results of Groundwater and Surface Water Investigation* (CH2M 2009a): Detailed hydrogeologic characterization and groundwater and surface water investigation results.
- RFI/RI Report Volume 3, *Final RCRA Facility Investigation/Remedial Investigation Report, Volume 3 – Results of Soil and Sediment Investigation, PG&E Topock Compressor Station, Needles, California* December (Jacobs 2024a): Presents the results of soil investigations and data collection conducted at TCS from 2008 through 2020. PG&E conducted the Soil RFI/RI to evaluate the nature and extent of soil contamination at the site, and assess the extent to which the release poses a potential threat to human health and the environment. Volume 3 presents the following information:
 - Site and unit histories
 - A summary of soil investigations

- A data summary and description of data quality objectives
- Field investigation summaries, including updated conceptual site models (CSMs) for each investigation unit
- A soil risk assessment summary
- Conclusions and recommendations for those units and areas to be carried forward into a Corrective Measures Study and Feasibility Study (CMS/FS)

During the RFI/RI soil investigation, DOI evaluated the RFI/RI soil investigation data and determined that there were specific areas outside of TCS where concentrations of constituents of potential concern (COPCs) to humans and constituents of potential ecological concern (COPECs) significantly exceed background values or ecological and human health screening levels on federal land or in locations where constituents have the potential to migrate to federal land. On October 30, 2018, DOI directed PG&E to conduct an Engineering Evaluation and Cost Analysis (EE/CA) for a potential NTCRA to address contaminated soil on HNWR or adjacent to HNWR. On May 29, 2020, a draft EE/CA report was made available for public and agency review and comment and Tribal consultation. The public review period ended on August 5, 2020. DOI reviewed comments on the draft EE/CA and directed PG&E to prepare the Final EE/CA (Jacobs 2021a).

The EE/CA evaluated technologies and remedial alternatives to address contaminated soil in target areas. Several removal action alternatives were identified. A recommended alternative was proposed based on a comparative analysis of the removal action alternatives against the criteria of effectiveness, implementability, and cost. The selected removal action, Alternative 3, Excavation, Mechanical Separation, Offsite Disposal of Fines, and Reuse of Coarse Material, was implemented as described in this Soil NTCRA Completion Report.

1.3 Regulatory Framework

PG&E is conducting investigative and remedial activities at TCS under RCRA and the *Comprehensive Environmental Response, Compensation and Liability Act* (CERCLA). DTSC is the lead state agency, and DOI is the lead federal regulatory agency providing oversight of the environmental investigation and cleanup at the site. The soil medium was the focus of the Soil NTCRA, which is an interim measure conducted in parallel with the RFI/RI phase of the cleanup process. RFI/RI activities have been conducted both within the TCS fence line and at adjacent land outside the TCS fence line.

The RFI/RI soil investigation data were used to identify specific areas outside of TCS where concentrations of constituents in soil significantly exceeded background values or ecological and residential screening levels on federal land or in locations where constituents have the potential to migrate to federal land. These areas, referred to as potential action areas (PAAs) in the EE/CA, are located within or adjacent to active desert washes subject to erosion and potential scouring during rain events that could move contamination toward the Colorado River or spread the contamination footprint over a larger area. Because of this potential threat to public health and the environment, DOI directed PG&E in the Action Memorandum to conduct the Soil NTCRA to address contaminated soil in these PAAs, hereafter identified as TAAs (DOI 2021).

The Soil NTCRA is authorized pursuant to the response action authority of CERCLA Section 104(a) as amended, 42 United States Code (USC) Section 9604(a). Pursuant to Executive Order (EO) 12580, as amended, Section 104 authority is delegated to the Secretary of the Interior to address the release or substantial threat of release of hazardous substances on or from a property under DOI's jurisdiction, custody, or control.

1.4 Objectives and Numerical Goals for Soil NTCRA

Section V of DOI's Action Memorandum (DOI 2021) states the objectives of the Soil NTCRA as follows:

"This non-time-critical removal action is intended to stabilize and mitigate the threat of release of contaminated material surrounding and within the Refuge and reduce the overall threat to human health and the environment. This action may not be the final remedy for the AOCs/SWMUs. The soil remedial investigation process will continue for the Site."

To comply with the Action Memorandum (DOI 2021) objectives, the Soil NTCRA implemented the alternative recommended in the EE/CA: Alternative 3 – Excavation, Mechanical Separation, Offsite Disposal of Fines, and Reuse of Coarse Material. The removal action meets the three specific removal action objectives (RAOs) (Exhibit 1-1) established in the EE/CA. Exhibit 1-2 presents the numerical removal action goals (RAGs) for the removal action.

The removal action on HNWR or in locations where constituents have the potential to migrate to HNWR was limited to the following site media:

- Soil
- Other solid phase matrices, including:
 - White powder
 - Black sandy material
 - Debris, such as:
 - Wood
 - Cans
 - Machine parts
 - Rebar
 - Concrete
 - Asphalt
 - Railroad ties
 - Piping

Exhibit 1-1. Removal Action Objectives

Removal Action Objective	Removal Action Goal
<p>RAO 1: Reduce human and ecological risk related to the COCs in soil up to 10 feet bgs on or adjacent to federal land by removing soil at locations identified as driving risk in the HHERA.</p>	<p>To meet RAO 1, the HHERA recommendations will be followed; that is, removal action alternatives will include removal of soil at the following locations identified in HHERA:</p> <ul style="list-style-type: none"> ▪ Protection of potential human recreators: Four total locations for the 0-foot to 3-foot depth interval: <ul style="list-style-type: none"> – Dioxin-TEQ: SWMU1-25 – Cr(VI): <ul style="list-style-type: none"> ○ AOC 10-20 ○ #10 ○ MW-58BR_S ▪ Protection of desert shrew: Up to seven total locations for the 0-foot to 0.5-foot bgs depth interval: <ul style="list-style-type: none"> – D/F TEQ (based on RBRG of 190 ng/kg): <ul style="list-style-type: none"> ○ SWMU1-25 ○ PA-20 ○ AOC 10-23 ○ PA-21 ○ AOC 10c-4

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Removal Action Objective	Removal Action Goal
	<ul style="list-style-type: none"> - Chromium: AOC 10-20 - Copper: AOC 10-21 <p>Following the Soil NTCRA, risk will be recalculated for the relevant exposure areas and compared to numerical RAGs, specifically RBRGs defined in the HHERA. Risk calculations will be performed during implementation of the removal action and will include existing soil concentration data for sample locations not removed in the Soil NTCRA and new data from confirmation samples. RAO 1 will be met when the residual 95UCL of the mean concentration for the potential exposure area is less than or equal to the RBRG. Where human health drives risk, the RBRG protective of risk at 1×10^{-6} will be used. Exhibit 1-2 presents the relevant RBRGs.</p>
<p>RAO 2: Address elevated concentrations of contaminants in soil up to 10 feet bgs outside TCS, in or adjacent to wash areas that are within, or have the potential to migrate to, HNWR during storm events.</p>	<p>To meet RAO 2, removal action alternatives will address direct contact with soil up to 10 feet bgs within HNWR or that may migrate to HNWR; soil that contains elevated contaminant concentrations, specifically:</p> <ul style="list-style-type: none"> ▪ Cr(VI) ▪ Chromium ▪ Copper ▪ Lead ▪ Mercury ▪ Molybdenum ▪ Zinc ▪ D/F ▪ Or some combination of these <p>Areas with elevated concentrations were identified during the EE/CA by comparing individual soil concentration results from existing RFI/RI data to the numerical RAGs (Exhibit 1-2) and identifying the factor of exceedance of 10 times the numerical RAG. Removing highly contaminated soil and wastes that contain mobile contaminants, such as Cr(VI), also minimizes the potential for further degradation of the groundwater aquifer. Confirmation samples will be collected during the Soil NTCRA and compared to numerical RAGs to confirm the completeness of removal actions.</p>
<p>RAO 3: Remove debris, burnt material, and discolored soil associated with elevated hazardous substances, as identified during the RFI/RI at SWMUs and AOCs up to 10 feet bgs.</p>	<p>To meet RAO 3, the Soil NTCRA will address visually identified debris, burnt material, and discolored soil from 0 to 10 feet bgs. RAO 3 will rely on visual identification of material rather than comparison of soil concentrations to numerical RAGs. Areas with observed debris, burnt material, sandblast grit, or discolored soil were preliminarily identified to evaluate removal action alternatives and costing, and will be refined based on visual observation during the Soil NTCRA. The completeness of the Soil NTCRA will be confirmed through visual observation and confirmation sampling for COCs.</p>

Source (Jacobs 2022a)

95UCL = 95% upper confidence limit on the mean

AOC = area of concern

bgs = below ground surface

Cr(VI) = hexavalent chromium

D/F = dioxins and furans

HHERA = Human Health and Ecological Risk Assessment (Arcadis 2019 and 2020)

MW = monitoring well

ng/kg = nanogram(s) per kilogram

RBRG = risk-based remedial goal

SWMU = solid waste management unit

TEQ = toxicity equivalent

Exhibit 1-2. Numerical Removal Action Goals

Contaminant	Numerical Removal Action Goal	Basis	Source	Applicable Removal Action Objective
Cr(VI)	3.1 mg/kg (surface to 2 feet bgs) 31 mg/kg (2 to 10 feet bgs)	Off-highway vehicle rider at 1×10^{-6} risk Off-highway vehicle rider at 1×10^{-5} risk	RBRG calculated in HHERA	RAO 1 ^[a] and RAO 2 ^[b]
Chromium	145 mg/kg	Desert shrew	RBRG calculated in HHERA	RAO 1 ^[a] and RAO 2 ^[b]
Copper	145 mg/kg	Desert shrew	RBRG calculated in HHERA	RAO 1 ^[a] and RAO 2 ^[b]
D/F TEQ ^[c]	100 ng/kg (surface to 2 feet bgs) 190 ng/kg (2 to 10 feet bgs)	Hiker at 1×10^{-6} risk Desert shrew	RBRG calculated in HHERA	RAO 1 ^[a] and RAO 2 ^[b]
Lead	36 mg/kg	Cactus wren	RBC calculated in HHERA Appendix RBC	RAOs 2 ^[b]
Mercury	1 mg/kg	Cactus wren	RBC calculated in HHERA Appendix RBC	RAOs 2 ^[b]
Molybdenum	22 mg/kg	Desert shrew	RBC calculated in HHERA Appendix RBC	RAOs 2 ^[b]
Zinc	1,050 mg/kg	Cactus wren	RBC calculated in HHERA Appendix RBC	RAOs 2 ^[b]

^[a] For RAO 1, the residual 95UCL of the mean concentration for the potential exposure area will be compared to the RBRG.

^[b] For RAO 2, individual soil samples are and will be compared directly to the RBRG to identify significant exceedances.

^[c] D/F TEQs for humans and mammals are calculated using the same toxic equivalency factors. The D/F RAGs are protective of both human recreators and the desert shrew. The RBC for protection of the desert shrew is 190 ng/kg. mg/kg = milligram(s) per kilogram

RBC = risk-based concentration

1.5 Areas of the Site Addressed during Soil NTCRA

The Soil NTCRA completed removal activities at the locations identified in the Action Memorandum (DOI 2021) at the following areas (Figure 1-3):

- SWMU1 – Former Percolation Bed (3 TAAs)
- AOC 1 – Area Around Former Percolation Bed (3 TAAs)
- AOC 9 – Southeast Fence Line (1 TAA)
- AOC 10 – East Ravine (4 TAAs)
- AOC 11 – Topographic Low Areas (1 TAA)
- AOC 14 – Railroad Debris Site (1 TAA)
- AOC 16 – Former Sandblast Shelter (1 TAA)
- AOC 27 – MW-24 Bench (1 TAA)

Except for AOC 16, these TAAs are outside the TCS fence line on federal lands or at locations where constituents have the potential to migrate to federal land, including HNWR. AOC16 is located within the western TCS fence line and above SWMU1 and AOC1 (Figure 1-3). While AOC16 was not designated as a PAA in the EE/CA, it was included in the Action Memorandum (DOI 2021) and was addressed during the Soil NTCRA as a TAA.

The source, nature, and extent of the contamination in soil at the TAAs before the Soil NTCRA are presented in the RFI/RI Report Volume 3 (Jacobs 2024a). Tables and figures presenting the detailed screening of data for individual constituents against the corresponding numerical RAGs are presented in the EE/CA (Jacobs 2021a).

1.6 Report Organization

This Soil NTCRA Completion Report is organized as follows:

- **Section 1** presents the project background, regulatory framework, and RAOs.
- **Section 2** summarizes the removal actions conducted in support of the Soil NTCRA, including:
 - Preconstruction tasks
 - Removal and testing methods
 - Site restoration approach
 - Waste management
- **Section 3** presents the TAA-specific actions and findings of the Soil NTCRA.
- **Section 4** presents the postconstruction activities.
- **Section 5** presents a final summary of the activities completed during the Soil NTCRA.
- **Section 6** provides a list of references used during implementation of the Soil NTCRA and in report preparation.
- The appendices contain detailed information supporting the results and conclusions presented in this report:
 - Appendix A – Field Change Requests and Variances
 - Appendix B – Permits and Notifications
 - Appendix C – Geophysical and Land Survey Reports
 - Appendix D – Environmental Compliance Documentation
 - Appendix E – Confirmation Soil Sample Analytical Laboratory Reports
 - Appendix F – Soil Data Quality Evaluation
 - Appendix G – Waste Characterization Sample Analytical Laboratory Reports
 - Appendix H – Waste Management Documentation
 - Appendix I – Photograph Log

2. Removal Action Summary

This section presents the methods, equipment, and procedures used to implement the Soil NTCRA. Removal actions completed during the Soil NTCRA were conducted in general accordance with the Soil NTCRA Work Plan (Jacobs 2022a). The initially proposed Soil NTCRA field activities were estimated to have a duration of 6 months. As work progressed, it became evident that significant additional contamination required removal from the approved TAAs. The discovery of additional contamination did not necessitate significant changes to the methods, equipment, and procedures presented in the Soil NTCRA Work Plan, and summarized herein; however, the project duration increased to approximately 22 months.

Variations and field changes to the Work Plan were documented throughout the project and are discussed in Section 3. Appendix A provides the field change requests and variances to the Soil NTCRA Work Plan for reference.

2.1 Preconstruction Activities

This section describes activities conducted before the start of the Soil NTCRA field activities.

2.1.1 Approvals and Authorizations

This section describes the approvals and authorizations required for the Soil NTCRA field activities.

CERCLA Section 104 - The Soil NTCRA was conducted under the authority of CERCLA Section 104; therefore, it was exempt from requiring any federal, state, or local permits or complying with other administrative requirements, pursuant to CERCLA Section 121(e). However, the National Contingency Plan (NCP) (40 *Code of Federal Regulations* [CFR] 300.415(j)) requires that removal actions will, to the extent practicable, consider the exigencies of the situation and attain applicable or relevant and appropriate federal and state environmental requirements (ARARs). Therefore, the measures described in this section were performed to meet NCP requirements.

Biological Assessment - The Soil NTCRA activities were conducted in accordance with the Soil NTCRA Biological Assessment (BA) (Jacobs 2021b). The BA was prepared to support informal consultation under Section 7 of the *Endangered Species Act* (ESA) for Soil NTCRA activities on BLM, USBR, and FWS-administered lands, including HNWR. FWS provided concurrence on the Soil NTCRA BA on May 26, 2022 (FWS2022). Onsite Biological Monitors conducted preconstruction surveys for protected species in work areas immediately before initiation of ground-disturbing activities.

Section 106 and Programmatic Agreement and Amendment (PA) - The Soil NTCRA activities were conducted in compliance with Section 106 of the *National Historic Preservation Act* and involved consultation with local Native American Tribes and with the State Historic Preservation Office. The field activities were conducted in ways that avoided, minimized, or mitigated adverse effects to cultural and historic properties within the Area of Potential Effects (APE) in accordance with Topock-specific documents, including:

- The PA (BLM 2010) and PA Amendment (BLM 2017)
- The *Cultural and Historical Properties Management Plan* (CHPMP) (BLM 2012)
- The *Cultural and Historical Properties Treatment Plan* (AE 2018)
- In consultation with the Tribes

During work planning, the areas subject to Soil NTCRA activities and a 30-meter (m) buffer around the TAAs were reviewed by Applied Earthworks (AE), a qualified archaeological contractor hired for the Topock site, to determine previous survey coverage and identify locations of known archaeological and historical resources relative to the TAAs. AE concluded that all areas identified within the Soil NTCRA work area boundary have been surveyed multiple times within the past 20 years (AE 2021) (Figures 2-1 and 2-2). Most of these areas were surveyed as recently as 2021, and most others as recently as 2018. Only one area, the USBR rock quarry, has not been surveyed since 2004.

The review of archaeological sites within 30 m of TAAs revealed that only one isolate, 36-027735 (a flaked chert pebble), is within 30 m of a TAA where ground excavations were conducted (Figures 2-1 and 2-2). Multiple sites are within 30 m of the larger work area boundary; however, this area was not designated for soil excavation or removal, but for ancillary operations, such as vehicle and equipment access, mobilization, and staging; therefore, it was unlikely that any archaeological resources would be physically impacted by planned work activities.

PG&E also conducted a cultural review of the Campbell's Quarry in Lake Havasu City, Arizona to evaluate the use of soil (aggregate base [AB] material) from the quarry as backfill for Soil NTCRA excavations. BLM, in consultation with the Tribes, concurred that no cultural or archaeological resources were affected by using materials from Campbell's Quarry.

Before starting ground disturbance activities, preconstruction field verifications or informal walkdowns were conducted with the following personnel:

- Archaeological Monitors
- Tribal Monitors
- DOI Representatives
- Onsite personnel

PG&E held daily morning meetings with Tribal Monitors and oversight agencies. Qualified Archaeologists monitored all ground disturbance activities. Tribal Monitors were also invited to observe field activities throughout the project from approved viewpoints. The Tribal Monitors were regularly invited to participate in frequent site visits to observe the work from various vantage points surrounding the excavation area. The Tribal Monitors presented their observations to PG&E Representatives daily and met with PG&E Representatives to exchange information and discuss planned activities as part of the NTCRA. No unanticipated archaeological or historical sites were discovered during the NTCRA project.

Air Quality Permit and Notification - On February 14, 2023, asbestos-containing materials (ACM) was encountered during removal actions at AOC14 TAA1 (Figure 1-3). Work was stopped pending laboratory analysis of the material and completion of necessary coordination with and permitting through the Mohave Desert Air Quality Management District (MDAQMD). Transportation and disposal of the ACM was conducted after receipt of MDAQMD's approval of the Notification of Demolition/Renovation #2023-ASB-107 on April 17, 2023. Additional ACM removal activities were required at AOC14 TAA1 in late 2023; on October 25, 2023, MDAQMD approved the Notification of Demolition/Renovation #2023-ASB-287. Appendix B provides the applicable documentation. Section 3.13 discusses additional details regarding the ACM removal actions at AOC14 TAA1.

Caltrans Encroachment Permit and Access Agreement - AOC14 TAA1 and AOC1 TAA1 are located on Caltrans ROW (Figure 1-3). Caltrans was notified of the planned Soil NTCRA work in their ROW through verbal communication and a technical memorandum on June 3, 2022 (Appendix B). Caltrans issued an encroachment permit for Soil NTCRA activities within their ROW on August 12, 2022. In addition, a *Consent for Access to Property to Implement Response Action Under CERCLA* was executed by PG&E on August 11 and by Caltrans on August 12, 2022. The encroachment permit was updated and extended, as

needed, throughout the Soil NTCRA. Appendix B provides the applicable documentation. Sections 3.4 and 3.13 provide additional details about the Soil NTCRA work on Caltrans ROW.

Arizona Department of Transportation (ADOT) Encroachment Permit – ADOT was notified of planned placement of certain traffic control equipment on I-40 in Arizona. ADOT issued an encroachment permit for traffic control on I-40 (in Arizona) on November 1, 2023. Appendix B provides the applicable documentation.

Construction Stormwater Pollution Prevention - Prevention of stormwater pollution was accomplished with best management practices (BMPs) implemented for runoff and runoff controls in accordance with the BMPs Plan presented in the Soil NTCRA Work Plan (Jacobs 2022a). The BMPs Plan met DOI's ARARs requirements; the substantive criteria of the California General Permit for construction activities in San Bernardino County, California; and the substantive criteria of the MDAQMD Rule 403 – Fugitive Dust. Section 2.3 provides BMP compliance details.

Waste Management - Compliance with the requirements of regulations under the categories of hazardous waste management, hazardous materials management, and spill prevention and response were achieved during the Soil NTCRA removal and disposal activities. Waste was staged, characterized, and profiled in accordance with the Waste Management Plan (WMP) presented in the Soil NTCRA Work Plan (Jacobs 2022a). Waste profile applications submitted by PG&E were reviewed and approved by the permitted landfill facilities' general manager. After the profiles were approved, wastes were transported to the landfills for disposal. Sections 2.8 and 3 provide more details about waste management during the Soil NTCRA.

2.1.2 Environmental Release to Construction

The Environmental Release to Construction (ERTC) is PG&E's internal document that details the substantive requirements, including work boundaries, that must be followed by Contractors. No work occurred without an approved ERTC. Addendum to an ERTC was issued when there was a material change to the original ERTC, such as expansion of the work area boundary necessary to remove the unanticipated contaminated materials encountered. For the Soil NTCRA, four ERTCs and addendums were prepared and issued to Contractors:

- *ERTC No. 1 – Soil Sampling/Removal Action at [AOC9 TAA1, AOC10] TAAs 1-4, and AOC11 TAA1 (7/13/2022). Addendum on September 23 and December 23, 2022. (Note that text added in square brackets corrects the omission in the published title shown here.)*
- *ERTC No. 2 – Soil Removal Action at AOC1 TAAs (except TAA1), SWMU1 TAAs, and AOC27 (10/4/2022). Addendum on January 6, October 6, and November 21, 2023.*
- *ERTC No. 3 – Soil Removal Action at AOC1 TAA1 and AOC14 (1/26/2023). Addendum on October 4, 2023.*
- *ERTC No. 4 – Soil Removal Action at AOC16 Inside TCS (9/27/2023).*

Closeout of the ERTCs was conducted after completion of the Soil NTCRA activities. Section 4.4 provides closeout details.

2.1.3 Project Initiation Meeting

Consistent with other phases of work conducted at the Topock site, PG&E invited Agency Representatives, the Tribes, and interested members of the public to the site for a project initiation meeting before the start of intrusive removal activities. A web-based presentation was held on July 6, 2022 (an electronic copy of the presentation was provided to Consultative Work Group [CWG] members on July 8, 2022), and a

subsequent in-person meeting was held on July 14, 2022, which included a walking tour of the Soil NTCRA work areas.

2.1.4 Worker Environmental Awareness Training

Consistent with current site practice, all PG&E personnel, Consultants, and Subcontractors were required to attend Worker Environmental Awareness Training (WEAT). WEAT covers rules, requirements, and expectations for conducting work at the culturally and biologically sensitive Topock site. WEAT refresher training was held annually, as needed.

2.1.5 Preconstruction Field Verifications

An onsite Biological Monitor conducted preconstruction surveys for protected species in work areas immediately before initiation of ground-disturbing activities. In addition, consistent with current site practice, preconstruction field verifications or informal walkdowns were conducted with Archaeological Monitors, Tribal Monitors, and onsite personnel before the start of ground-disturbing activities.

2.1.6 Aboveground and Underground Utility Survey

A survey of aboveground and underground utilities was conducted within the work area boundary during site preparation activities in accordance with *Standard Operating Procedure (SOP)-B11 Site Clearance and Permitting* (Jacobs 2022a). This survey included the following activities:

- Site-specific reconnaissance, including a visual inspection of the work area and review of available site utility plans and as-built documentation.
- Notification to Underground Service Alert of Southern California (or Dig Alert). Groundwater Partners, Inc (GWP), the excavation contractor, updated the notifications monthly and posted the current notification in the Administrative Office.
- GeoVision Geophysical Services (GeoVision) used various nonintrusive remote-sensing tools to identify underground features. As work areas expanded, GeoVision returned to conduct additional surveys to identify underground features; Appendix C provides the geophysical report.

Section 3 discusses the utilities identified during the geophysical survey with the potential to impact Soil NTCRA activities, which included the following:

- AOC1 TAA2 – An active natural gas pipeline operated by Transwestern Pipeline Co. is present through Bat Cave Wash (BCW) and immediately east of the TAA. Transwestern Pipeline Co. was notified while working in the area. Excavation to remove contaminated soil was required on both sides of the gas pipeline. However, to avoid damage to the active pipeline, excavation stayed at least 4 feet away from the pipeline in accordance with Transwestern Pipeline Co. guidance. Section 3.5 provides additional details regarding the excavation near the pipeline and remaining contamination. Additionally, an abandoned conveyance pipe, historically connected to TCS-4, was also encountered during excavation of AOC1 TAA2 and subsequently removed.
- AOC10 TAA1 – Water and electrical lines are present immediately east of the TCS visitor parking lot. During construction, hand digging was conducted around the lines to prevent damage from heavy equipment.
- AOC14 TAA1 – Several small and possibly abandoned electrical lines and pull boxes were present immediately north of the I-40 highway pavement. During removal operations, hand digging was conducted around the pull box closest to the TAA excavation to prevent damage. Electrical wires encountered in this pull box were determined to be abandoned. Excavation near the other pull box in the area was not conducted, as it was closer to the I-40 highway pavement, and the status of electrical

wires was not determined. Additionally, an active gas pipeline (known as the Needles Tap) is present to the east of the TAA. John Andrade of PG&E Gas was notified while working in the area; however, excavation within 10 feet of the gas pipeline was not required. Other utilities, suspected to be abandoned, were observed during the geophysical survey of the site but were not encountered during excavation.

2.1.7 Land Surveying

Before starting removal activities, PG&E conducted a survey to mark TAA boundaries and a topographic survey of each TAA using light detection and ranging (LIDAR). Additional LIDAR surveys were conducted in areas where excavation activities extended beyond the initial survey extent, particularly AOC10 TAA2 and SWMU1 TAA1. Upon completion of the Soil NTCRA activities, a final LIDAR survey was completed documenting the post-NTCRA surface elevations. Appendix C provides topographic contour maps representing the pre- and post-NTCRA surface elevations. Pre- and post-NTCRA LIDAR surveys were not conducted at AOC14 TAA1 due to access constraints and the need for a I-40 highway lane closure. On February 28, 2024, Caltrans conducted a site walk and approved the post-NTCRA surface grade at AOC14 TAA1.

During the Soil NTCRA, individual TAA excavation boundaries and sample collection points were GPS surveyed by field staff using a handheld Trimble Catalyst with sub-meter accuracy. Adjustments were made during postprocessing of the survey data to account for inherent inaccuracy and drift associated with the use of the handheld instrument. The Section 3 figures present the adjusted excavation boundary and sample point locations.

2.1.8 Health and Safety

The Project Health, Safety, and Environment Plan (PHSEP) (Jacobs 2022a) provided the framework to safely complete the Soil NTCRA, including the handling and removal of the chemically impacted soil. This plan met the requirements of the California Division of Occupational Safety and Health (Cal/OSHA) Hazardous Waste Operations and Emergency Response Standard (HAZWOPER) regulations found at Title 8 of the *California Code of Regulations* (CCR) Section 5192. The excavation contractor, GWP, prepared their own Health and Safety Plan in conformance with the PHSEP.

The PHSEP included thorough site training, preparation and implementation of job hazard analyses, and continual updates as field conditions changed. Field crews completed interactive daily safety meetings so that all members were aware of the day's activities and potential hazards. Daily safety inspections were performed to verify compliance.

The project completed nearly 100,000 labor-hours without an Occupational Safety and Health Administration (OSHA)-recordable injury or major safety-related incident.

2.1.9 Personnel Monitoring

Workers within the exclusion zone (EZ) were monitored in accordance with the PHSEP to assess exposure to site contaminants and determine whether the current level of personal protective equipment (PPE) was appropriate. At AOC14 TAA1, the PPE level was increased to Level C (respiratory protection) due to the known presence of asbestos. Personnel monitoring was conducted and documented by the asbestos contractor, Alliance Environmental Services (AES), and the site's third-party safety contractor, Advanced Environmental Group, Inc. (AEG). Field staff operating the x-ray fluorescence (XRF) analyzer were enrolled in a radiation safety program and wore dosimetry badges while using the analyzer.

2.2 Work Areas

This section discusses the work areas where Soil NTCRA field activities were conducted.

2.2.1 Site Access

PG&E and Contractors accessed the Soil NTCRA work areas, staging areas, and TAAs using the existing approved access routes shown on Figures 2-1 and 2-2. Contaminated material was hauled along transportation routes in accordance with the Transportation Plan presented in the Soil NTCRA Work Plan (Jacobs 2022a).

Updates to the Transportation Plan were completed, as needed, and included the addition of an overnight staging area in Lake Havasu City for loaded haul trucks enroute to La Paz Landfill in Parker, Arizona (Appendix A). Work at AOC14 TAA1 required a lane closure and traffic control plan due to the access from the I-40 shoulder. A traffic control plan (including signage and traffic cone requirements) was approved and implemented by Caltrans in February 2023. The approved traffic control plan was implemented by Safety Network Inc. from November 2023 to February 2024. PG&E also contracted with the California Highway Patrol to be present during lane closures. Lane closures were not conducted during holiday weekends in accordance with Caltrans policy.

Construction activities were typically conducted between 7 a.m. and 5 p.m. but were adjusted, as needed, due to the changing daylight hours and permit limits, and to avoid activities during the hottest part of the day. Weekend and holiday work was conducted, as needed. Tribal Monitors and Agency Representatives were notified of work activities and changes to work hours, including weekends and holidays, through a weekly emailed 6-week look-ahead schedule and also verbally during daily morning meetings.

2.2.2 Site Demarcation

Before starting intrusive activities, the Soil NTCRA work areas were segregated into three primary work zones, such that work was conducted in accordance with Cal/OSHA regulations set forth in 8 CCR 5192. The primary work zones included the support zone, contamination reduction zone (CRZ), and EZ. Requirements for the three primary work zones included:

- Work areas
- Equipment staging
- Mechanical separation and stockpiling area
- Waste management areas
- Associated transportation routes

The EZ and associated CRZ were established when active excavation activities began or when potentially contaminated or hazardous materials and soil were being managed in an accessible manner. The extent and status (active or inactive) of the EZ and CRZ were adjusted as work progressed until the excavation was backfilled with clean material, or confirmation sample results indicated contaminants were within or were less than numerical RAGs. Additionally, excavations with an entrapment, fall, or other hazard remained an active EZ until such hazards were removed.

The certifications required for personnel to enter or conduct work within each zone are listed in the site-specific PHSEP (Jacobs 2022a).

2.2.3 Equipment Staging Areas

Equipment staging areas were used to stage clean equipment and clean empty waste containers arriving onsite, as well as for routine equipment maintenance, including fueling and greasing. Equipment refueling was conducted in accordance with *SOP-B19 Remote Equipment Refueling* in the Soil NTCRA Work Plan (Jacobs 2022a). Idling or parked powered equipment, such as loaders, dump trucks, or excavators, were staged over containment devices to prevent the release of leaked fluids to the environment.

The following staging areas were approved for use during the Soil NTCRA:

- Soil Processing Yard (SPY) – Located to the northwest of the main work area (Figure 2-1), the SPY was the primary equipment staging area for the Soil NTCRA. The SPY included administrative office trailers and equipment staging. Section 2.2.4 discusses nonhazardous waste staging conducted at the SPY.
- Staging Area North of I-40 – Located immediately off the 1-40 Park Moabi Road exit (Figure 2-1), this staging area was used minimally for loading and unloading of construction equipment. Equipment and supplies were not staged at this location during the Soil NTCRA.
- BCW Access Road – Located on the access road into BCW (Figure 2-2), this staging area was used for construction equipment and materials when working in BCW.
- Transwestern Bench (TWB) – Located on PG&E property immediately outside of the TCS fence line (Figure 2-1), this staging area was used for the decontamination of equipment and, to a lesser extent, staging of clean equipment. Section 2.2.4 discusses hazardous and nonhazardous waste staging conducted at the TWB.
- Construction Headquarters (CHQ) – Located south of National Trails Highway (NTH) across from SPY (Figure 2-1), this area was used for staging clean construction equipment and materials, such as:
 - Unused erosion control materials
 - Unused plastic sheeting
 - K-rails
 - Steel plates
- Floodplain Staging Area – Located east of NTH, between the mouth of BCW and the MW20 Bench (Figure 2-1). While this staging area was approved for use in the Soil NTCRA Work Plan, it was not used.

2.2.4 Waste Management Areas

Waste management areas were used for stockpiling of excavated material, mechanical separation, and stockpiling of separated materials in accordance with the Soil NTCRA Work Plan. Waste management areas were demarcated as an EZ when active material separation operations were underway and when there was access to uncovered, potentially contaminated wastes. The EZ was removed when wastes were containerized or otherwise inaccessible, and no other unacceptable hazards existed. Waste management areas used during the Soil NTCRA included:

- SPY – The primary waste management area for nonhazardous waste. Excavated soil and debris from NTCRA excavations were transported to the SPY in haul trucks and stockpiled in numbered SPY stalls before mechanical separation for soil excavated from BCW only and final disposition. Section 2.8.1 discusses source information, quantities, and waste characterization details of the materials staged at the SPY.

BMPs were implemented at the SPY in accordance with the BMPs Plan presented in the Soil NTCRA Work Plan to prevent potentially impacted runoff water and airborne dust from leaving the site (Jacobs 2022a). The bowl-shaped topography of the SPY prevented runoff, if any, from leaving the

waste management area. Fugitive dust during SPY operations (hauling-in, stockpiling, and hauling-out) was prevented by the frequent application of water. Soiltac was applied to stockpiles to prevent wind erosion during nonoperational times. Plastic sheeting was used to cover soil stockpiles with presumed ACM from AOC14 TAA1. Perimeter air and dust monitoring was conducted around the SPY, as specified in the Air Monitoring Plan (AMP) presented in the Soil NTCRA Work Plan (Jacobs 2022a) and discussed in Section 2.3.2.

On August 15, 2022, an Errata to the Soil NTCRA Work Plan was submitted to DOI to correct a discrepancy in the BMPs Plan. The BMPs Plan revision was warranted to correct for consistency with the discussions held with regulators to remove the requirement for nonhazardous soil stockpiles at the SPY to be placed on a plastic liner. DOI approved the errata on October 25, 2022 (Appendix A).

On September 18, 2023, DOI provided approval for expansion of the SPY to the northwest for the temporary staging of excess wastes generated during the Soil NTCRA (Appendix B). This area was identified as the Upper SPY.

- TWB – Used to temporarily stage soil with the potential to be characterized as hazardous waste (RCRA hazardous and non-RCRA hazardous). Staged materials were containerized in roll-off bins positioned on the concrete pad. Inspections of suspected or known hazardous waste were conducted weekly to verify compliance with the WMP presented in the Soil NTCRA Work Plan (Jacobs 2022a). Section 2.8.1 discusses source information, quantities, and waste characterization details of the materials staged at the TWB.

2.3 Compliance with Applicable Relevant and Appropriate Requirements, and Other Advisories, Criteria, or Guidance To Be Considered

This section documents actions taken in compliance with the identified ARARs and other advisories, criteria, or guidance to be considered (TBCs) listed in Tables 4-1 to 4-5 of the Soil NTCRA Work Plan (Jacobs 2022a). The ARARs addressed several resource areas, including the following:

- Biological
- Air quality
- Cultural and archaeological
- Hazardous materials
- Waterways
- Noise

This section provides select highlights of the compliance actions taken under each resource area during implementation of the Soil NTCRA. Appendix D provides detailed supporting documents and reports.

2.3.1 Biological

Project compliance with the conservation measures specified in the Soil NTCRA BA (Jacobs 2021b) is documented in Table A-1 of the Soil NTCRA Biological Resources Completion Report (Jacobs 2024b). The general conservation measures were found to be effective in minimizing impacts to the ESA-listed species and their habitats within the Soil NTCRA work area boundary. Other highlights include:

- Impacts to BLM-protected plants were limited to blue palo verde, catclaw acacia, and honey mesquite. Impacts to four of these protected plants were minimized by only trimming less than 20% of the crown to allow access for construction activities. However, 29 protected plants were removed, and 69% of these were 6 feet in height or less.
- Impacts to habitat were limited to 2.7 acres of previously undisturbed habitat; temporary impacts represented 2.3 acres (85%), and permanent impacts represented 0.38 acre (15%). Temporary

impacts included access routes, workspaces, and areas returned to original contours and surface material. Permanent impacts included the slopes stabilized with riprap at AOC9 TAA1, AOC10 TAA1, and SWMU1 TAA2. There were no impacts to the floodplain or historical floodplain associated with the Soil NTCRA activities.

Regarding the protection of culturally sensitive plant species (Table 4-3, Item 8, Section 7.1 of the CHPMP [BLM 2012]), select examples of PG&E's and DOI's coordination with Tribes in this matter are as follows:

- Before starting ground disturbance, PG&E coordinated preconstruction field verifications with agencies and Tribes to stake the TAA and work area boundaries. Impacts to vegetation were discussed during the field verifications.
- PG&E discussed work to be performed, including impacts to vegetation, during the daily morning tailboard meetings with Agency Representatives and Tribal Monitors.
- PG&E inventoried the removal of honey mesquite, palo verde, and catclaw acacia plants during Soil NTCRA activities and are currently coordinating with federal agencies and Tribes to mitigate removed plants.
- DOI consulted with the Tribes on the removal of the mesquite trees at AOC10 TAA2 (middle of East Ravine).
- DOI consulted with the Tribes on the protection of the mesquite trees at AOC10 TAA4 (near the entrance to East Ravine).

Project compliance with the *Bird Impact Avoidance and Minimization Plan* (BIAMP) (CH2M 2014b) is documented in Revised Table 4-5 (Appendix D). An example is during the nesting season for migratory birds from March 15 through September 30, Biological Monitors conducted daily preconstruction surveys to confirm there were no nesting birds adjacent to the primary work zones. One active nest, an ash-throated flycatcher nest, was observed within the IM-3 facility during Soil NTCRA activities. Construction buffers were immediately established to protect the nest until the fledglings left the nesting area.

2.3.2 Air Quality

Project compliance with air quality ARARs is documented in Revised Table 4-1 (Appendix D). Control of fugitive dust and construction-related air emissions, coupled with air monitoring, form the cornerstone of the air compliance program for the Soil NTCRA. Engineering controls for the abatement of airborne particles were applied during dust-generating activities, such as:

- Excavation
- Soil processing
- Soil staging
- Travel on dirt roads

Controls included wetting with freshwater and the application of approved commercial dust control product, Soiltac.

The disturbed ground surface, excavated material, soil stockpiles, and roadways were wetted as the primary dust suppression method during removal activities. The water supply used for dust control and equipment decontamination was primarily from elevated freshwater storage tanks. The temporary tanks were located along NTH near the historic Route 66 sign and filled from TCS storage tanks (Figure 2-2). Mobile water tanks were filled with a hose connected to a tee off the TCS fresh water supply line.

Water application rates were optimized to the greatest practical extent, while still maintaining dust control, reducing runoff from affected material, and minimizing ponding. The commercial dust control

product, Soiltac, was applied to soil stockpiles in the SPY, as needed to prevent wind erosion when stockpiles were not actively being worked (adding or removing soil). Soiltac was also applied to stabilize disturbed soil at AOC14 TAA1 during the bat roosting season when work could not be conducted.

In addition, BMPs were implemented to reduce construction-related emissions, for example:

- The Contractor maintained a list of all operating equipment in use on the project site, including the makes, models, and numbers of construction equipment onsite.
- Equipment was properly serviced and maintained in accordance with the manufacturer's recommendations.
- Nonessential idling of construction equipment was restricted to 5 minutes or less in compliance with California Air Resources Board's Rule 2449, to the extent practicable.

Air monitoring was conducted to evaluate the effectiveness of the dust control program; to guide modifications to field activities and engineering control measures, if necessary; and to document that construction activities did not result in the migration of soil contaminants beyond the work area boundaries. Real-time dust monitoring results were used to guide modifications to field activities and engineering control measures, if necessary. Air sampling using pumps and cartridges was conducted, as needed, in accordance with the AMP presented in the Soil NTCRA Work Plan (Jacobs 2022a) and analyzed for the following constituents:

- Cr(VI)
- Mercury
- D/F
- Asbestos

Air sample results were compared to risk-based levels of concern (LOCs), which were developed for the Soil NTCRA Work Plan (Jacobs 2022a) for the protection of receptors outside the work area.

Air monitoring results are summarized in the Soil NTCRA Air Monitoring Report (Appendix D). The results showed that the dust control program was effective at controlling the migration of soil contaminants beyond the work area boundaries and helped guide modifications to field activities and dust suppression measures. Pre-emptively applying dust suppression measures when there was more potential for fugitive dust generation or when readings greater than 20 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) were recorded to help minimize exceedances of the 100 $\mu\text{g}/\text{m}^3$ fugitive dust action level, which occurred during about 2% of the overall events.

None of the calculated time-weighted average 10-hour dust concentrations or daily average dust concentrations exceeded the LOCs. Mercury, D/F, and asbestos were not detected exceeding the LOCs in any of the samples collected. Cr(VI) was detected exceeding the LOC in one downwind pair from one sampling event at AOC10 TAA1, 1% of total events (Appendix D).

2.3.3 Cultural and Archaeological

Appendix D documents the project's compliance with applicable cultural and archaeological stipulations as follows:

- PA in Revised Table 4-2
- CHPMP in Revised Table 4-2
- *Cultural and Historic Property Treatment Plan* in Revised Table 4-4
- Other advisories or TBCs related to cultural and archaeological resources included in the Soil NTCRA Work Plan in Revised Table 4-1

The Soil NTCRA was designed to avoid impacts on historical and archaeological resources to the maximum extent feasible. During Work Plan development, qualified Archaeologists from AE and PG&E performed a desktop review to confirm there were no conflicts with locations of previously identified resources and proposed work areas. Subsequently, AE and PG&E Archaeologists participated in a field review to walk the work area and discuss details, including work boundary and means and methods to protect sensitive resources, including the isolate in BCW. Inputs were provided and used to refine the work area boundary to protect resources. The refined work area was included in the Soil NTCRA Work Plan.

During field implementation, cross-trained AE and PG&E Archaeological and Paleontological Monitors observed all ground-disturbing activities during the Soil NTCRA. Archaeological Monitors had the authority to temporarily divert or stop any activities if previously unidentified potentially significant cultural resources were discovered. Tribal Monitors were also onsite to observe ground-disturbing activities.

2.3.4 Hazardous Materials

Project compliance with California action-specific ARARs related to hazardous materials is documented in Revised Table 4-1, Items 15 and 16 (Appendix D). In summary, excavated soil was managed in accordance with the WMP provided in the Soil NTCRA Work Plan (Jacobs 2022a). Section 2.8 provides detailed descriptions of how wastes, including contaminated soil and debris, generated from the Soil NTCRA were sampled, characterized, and profiled for offsite disposal.

In general, three types of wastes were generated from Soil NTCRA:

- 1) RCRA hazardous waste – Contaminated soil and debris from AOC10 TAA1, and metal pipe and concrete with heavy metals previously connected to the old TCS-4 well from AOC1 TAA2
- 2) Non-RCRA hazardous waste – Contaminated soil with ACM from AOC14 TAA1, and contaminated soil from AOC10 TAA1 and SWMU1 TAA2
- 3) Nonhazardous waste – Contaminated soil from various TAAs

Waste profile applications were submitted to the applicable permitted landfills. After a waste profile was approved by the landfill facility's general manager, shipping paperwork was prepared to send the wastes offsite. RCRA hazardous wastes from Soil NTCRA were sent to US Ecology Landfill in Beatty, Nevada. Non-RCRA hazardous wastes and nonhazardous wastes were sent to Republic Services La Paz Landfill in Parker, Arizona.

2.3.5 Waterways

Project compliance with avoidance and minimization measures (AMMs) required for activities in BCW, a jurisdictional water of the United States and the State of California, is documented in Table A-1 of the Soil NTCRA Biological Resources Completion Report (Appendix D). Several TAAs of the Soil NTCRA are located in BCW, including:

- AOC1 TAA1
- AOC1 TAA2
- SWMU1 TAA1
- SWMU1 TAA2

Therefore, impacts to this jurisdictional resource could not be avoided. However, minimization measures were implemented to mitigate impacts to BCW during Soil NTCRA. Examples include:

- All personnel received environmental awareness training before construction.

- All field activities were conducted under the supervision of a Field Contact Representative. Qualified, onsite Biologists conducted preconstruction surveys of the entire approved work areas before ground-disturbing activities and completed daily biology checks at each work site.
- Listed species were not encountered during Soil NTCRA construction.
- No discharge to waters of the State or the United States occurred.
- No spoil piles were located within TAAs during non-working hours.
- Spills or releases of oil or petroleum products were immediately removed.
- Straw wattles were placed downstream of excavation areas.
- Riprap was placed on disturbed areas in BCW to reduce erosion.
- All trash and debris were removed from TAAs daily.
- Portable toilets were located away from drainage and traffic areas.
- Rumble plates or graveled entrances and exits were used to reduce track-outs.
- Vehicle traffic was restricted to established roadways or routes only.

Additionally, BMPs were implemented and maintained to reduce construction-related contaminants from reaching downstream waterways, in accordance with the BMPs Plan presented in the Soil NTCRA Work Plan (Jacobs 2022a). Stormwater Pollution Prevention Plan (SWPPP) compliance is documented in the *2023-2024 Linear Underground/Overhead Project (LUP) Annual Report (Appendix D)*.

Some examples of the BMPs implemented during the Soil NTCRA are:

- Rumble plates were used at the exits of AOC10, AOC11, SPY, and CHQ to prevent track-outs onto NTH.
- Track-outs were cleaned up within 24 hours of notification.
- Fiber rolls were used downgradient of AOC1 TAA1 to prevent runoff outside of the TAA.
- Stockpiling of excavated soil was not allowed in the TAAs during non-working hours.
- A diesel fuel storage tank was placed in secondary containment in the SPY, protected by concrete K-rails. Spill kits were available nearby.
- Spill prevention and control measures were implemented at each refueling event.
- Spills were cleaned up immediately.
- Roll-off bins containing contaminated materials were placed in secondary containment at TWB. Spill kits were available nearby.

2.3.6 Noise

Project compliance with noise-related ARAR is documented in Revised Table 4-1, Item 53 (Appendix D). During the Soil NTCRA, noise monitoring was conducted at five approved monitoring locations, in accordance with mitigation measures NOISE-2 and NOISE-3 specified in the Final Subsequent Environmental Report (SEIR) (DTSC 2018). The *Noise Monitoring Summary* summarizes the results of noise monitoring and mitigations implemented during the Soil NTCRA (Appendix D).

2.4 Removal Action Methods

This section presents the general approach to the removal of contaminated soil and debris from the TAAs. Section 3 provides pertinent additional details about the removal activities for the individual TAAs. The processes for management and disposition of excavated soil and debris in accordance with the WMP and Transportation Plan presented in the Soil NTCRA Work Plan (Jacobs 2022a) are also summarized in this section.

2.4.1 Removal Approach

The Soil NTCRA was conducted at the TAAs identified in the Action Memorandum (DOI 2021). The extent of the TAAs identified in the Action Memorandum were developed during the EE/CA to estimate the removal volumes and costs (Table 2-1). The actual extent of contamination and the actual removal volume were not defined during the EE/CA. Therefore, the approach to soil and debris removal varied for each TAA based on the understanding of the contamination once excavation began.

Step-out excavations beyond the TAA boundaries were necessary to remove contamination to concentrations less than the numerical RAGs. DOI approval was obtained before removing material beyond the original TAA boundary. Table 2-1 and Section 3 discuss the actual extent of the Soil NTCRA excavations and removed quantities.

The initial step at each TAA was to survey and mark the TAA boundaries with paint, stakes, or flagging, or some combination of these. The general area was visually surveyed to identify site access and safety concerns, and to establish work zones. The TAAs were then surveyed using LIDAR to provide the preconstruction ground surface topography. Excavation at the individual TAAs then proceeded, as follows:

- If the TAA's contamination was visually evident based on the presence of discolored soil, powders, or debris, or if XRF results exceeded the screening threshold (Section 2.5.1), then excavation continued until evidence of contamination was removed. Step-out beyond the TAA boundary to remove visually contaminated soil or soil with elevated XRF results required DOI notification and approval before removal extended beyond the original TAA boundary.
- If the TAA's contamination was not visually evident or detectable through XRF screening, then excavation continued until the soil was removed to the lateral extent of the TAA boundary and to the initial depth identified in the Soil NTCRA Work Plan.

Once the initial TAA excavation was complete, soil samples were collected for confirmation sample analysis, as described in Section 2.5 and summarized as follows:

- If sample results indicated contaminant concentrations at the extent of the excavation were less than the numerical RAGs, then removal was considered complete. DOI was notified, and a request for backfill of the excavation was submitted.
- If sample results indicated contaminant concentrations at the extent of the excavation exceeded the numerical RAGs, then removal continued in the portion of the excavation with the exceedance. Step-out beyond the TAA boundary to remove contaminated soil required DOI notification and approval.

Removal actions continued, as needed, to remove visually contaminated soil or soil with contaminant concentrations exceeding the numerical RAGs. However, excavations did not continue in areas where further excavations:

- Encroached on biologically or culturally sensitive areas
- Had the potential to undermine utilities or critical infrastructure

- Were deemed unsafe
- Extended below 10 feet deep

Excavation below 10 feet was not within the scope of the Soil NTCRA, as defined in the RAOs. Soil below 10 feet bgs is beyond the exposure depth for potential human and ecological receptors (DOI 2021). However, debris encountered at AOC14 TAA1 was removed down to 13 feet bgs (Section 3.13). Section 3.16 discusses instances when known contamination exceeding the numerical RAGs was not removed.

2.4.2 Mechanical Excavation

Mechanical excavation was the primary removal method during the Soil NTCRA. Several excavators of various sizes, including a long-reach excavator, were used to remove soil and debris from the individual TAAs. Hand digging was used near utilities or in areas impractical for excavators to access.

Mechanical excavation was conducted in a precise manner to minimize disturbance to native materials and vegetation surrounding the targeted soil and debris, and to prevent the spread of contaminated material outside of the TAA. Water was applied during soil removal and loading activities to control fugitive dust.

Removal methods primarily consisted of direct loading of excavated material into a waiting haul truck. However, temporary stockpiling within the TAA was also conducted when direct loading was impractical. Temporary stockpiles placed within the TAA excavation were removed at the end of each workday so that no material was stockpiled overnight within a TAA. Temporary stockpiles were removed before the collection of confirmation soil samples described in Section 2.5.

Excavations deeper than 4 feet were benched or sloped in accordance with OSHA trenching and excavation requirements. Open excavations (excavations in progress or pending backfill approval) were secured at the end of each day to minimize the potential for human or wildlife falls or entrapment. Egress ramps were constructed to allow for safe entry and exit from excavations.

2.4.3 Onsite Hauling

Haul trucks traveled along approved access routes between the TAAs and the waste management areas (Figures 2-1 and 2-2). Haul trucks maintained speeds of less than 25 miles per hour (mph) to reduce dust and noise. Loaded haul trucks were decontaminated and loads tarped before leaving the CRZ. Drivers updated daily Bill of Lading logs with the load quantity, source location, and waste management area before transporting the material.

2.5 Sample Collection, Screening, and Confirmation Analysis

This section presents the general approach to soil sample collection, screening, and confirmation analysis during removal activities. The extent of removal activities was guided by a phased approach using both screening methods and confirmation laboratory analysis. Screening-level and confirmation-level data obtained during this process were compared to the numerical RAGs referenced in the Action Memorandum (DOI 2021) and presented in the Soil NTCRA Work Plan (Exhibit 1-2 of this report). Section 3 provides pertinent additional details about the sampling activities for each individual TAA.

The decision process for the screening and confirmation analysis of material encountered during removal is summarized as follows:

- 1) Excavation within the extent of the TAA boundaries was conducted to remove contamination, as specified in Section 2.4.1.

- 2) When field screening-level results using XRF indicated metals concentrations were less than the numerical RAGs based on screening-level threshold (Section 2.5.1), a sample was submitted for confirmation laboratory analysis of metals and D/F. If analytical results indicated metals and D/F TEQ concentrations exceeded the numerical RAGs, then removal continued in accordance with the removal approach described in Section 2.4.1.
- 3) Removal was considered complete when confirmation laboratory results were less than or equal to the numerical RAGs or when further excavation was deemed unsafe or undesirable based on TAA-specific limiting criteria.

2.5.1 Field Screening for Metals

Soil samples were screened for metals in the field using a ThermoFisher Scientific Niton XL5 handheld XRF analyzer. XRF screening was performed in accordance with *SOP-B16, Field-portable X-Ray Fluorescence Soil Sampling* (Jacobs 2022a). During the Soil NTCRA, several XRF analyzers were used. Each XRF analyzer received an internal calibration at the factory before shipment to the site. Field calibration of the XRF analyzer included daily and as-needed zero confirmation with the factory-provided blank.

Field screening of in situ soil was conducted to aid in the identification of metals contamination exceeding the numerical RAGs. Additionally, samples destined for laboratory analysis were screened with the XRF analyzer for direct comparison to laboratory analytical results.

During the initial phase of the project, a review and comparison of available XRF and laboratory data indicated the XRF analyzer overestimated the concentration of chromium and other metals in the soil, as compared to the analytical results. To aid in better estimating metals concentrations, an XRF screening threshold value of 500 parts per million (ppm) for chromium was used in place of the numerical RAG of 145 mg/kg. DOI was notified of this change in a December 2022 technical memorandum *Comparative Analysis: XRF and Dioxin/Furan Quantitative Screening Analyses* (Jacobs 2022b) (Appendix A).

The technical memorandum did not recommend a change to the threshold value for copper, lead, or zinc. Mercury and molybdenum were not adjusted, as there were insufficient detections with the XRF screening or analytical method to develop a threshold value. Additionally, the XRF analyzer does not distinguish trivalent chromium from Cr(VI).

2.5.2 Confirmation Soil Sample Collection

Upon completion of initial removal activities, or when required due to sample results exceeding the numerical RAGs, one discrete sidewall soil sample was collected for every approximately 50 linear feet (LF) of excavation sidewall, and one floor sample was collected for every 1,000 square feet (ft²) of excavation floor. The sample frequency was often increased due to the need for additional data to aid in refining step-out excavations.

For smaller excavations, a minimum of four sidewall samples and one excavation floor sample were collected as follows:

- Confirmation floor samples were collected at depths representing the approximate center of the 1,000 ft² sample area. Sample locations were based on evidence of contamination, such as:
 - Visual observation of staining or debris
 - Elevated XRF results
 - The locations corresponding previous soil sample results with elevated concentrations

- Confirmation sidewall samples were collected at depths based on evidence of contamination, such as:
 - Visual observation of staining or debris
 - Elevated XRF results
 - The depth of corresponding previous soil sample results with elevated concentrations

If no data were available to target a given sidewall depth, then the midpoint of the sidewall between the top and bottom of the excavation was selected.

Sample collection was performed in accordance with *SOP-B14 Standard Operating Procedures for Sample Collection* and *SOP-B7, Homogenization of Sediment and Soil Samples* (Jacobs 2022a). Sample collection was performed in appropriate PPE within the EZ. Sample container exteriors were decontaminated before leaving the EZ.

2.5.3 Confirmation Soil Sample Identification

Each confirmation soil sample was provided a unique sample identification. The ID included the sample's TAA location, identifier for wall and floor sample, and the sample depth. Details of the sample identification are as follows:

AOC#TAA#-Cx#-d

Where:

AOC#TAA# = AOC number TAA number

Cx = Confirmation, with:

x = W for confirmation wall sample

x = F for confirmation floor sample

= Sample number starting with 1; CW and CF samples each start with 1

a, b, c = Step-out because previous sample exceeded RAGs (a is first resample, then b)

R = Resample from the exact same location and depth (relates to lab error or lost sample)

d = Sample depth (in feet) relative to original surface elevation, with samples extended approximately 6 inches below the stated sample depth; for example, a 10-foot sample depth was collected from 10 to 10.5 feet bgs

Examples:

- Sample collected from AOC10 TAA2 from the third sidewall sample at 2 feet bgs: AOC10TAA2-CW3-2
- Sample collected from AOC10 TAA2 from the first step-out of the third sidewall sample at 3 feet bgs: AOC10TAA2-CW3a-3
- Sample collected from SWMU1 TAA1 from second resample of the fourth floor sample at 10 feet bgs: SWMU1TAA1-CF4b-10

2.5.4 Confirmation Soil Sample Analysis for Metals and Dioxins and Furans

Once field screening results for metals using XRF were less than screening-level threshold, split soil samples were submitted by express courier to analytical laboratories for confirmation analysis. Samples were submitted to Cape Technologies in South Portland, Maine for analysis of D/F using immunoassay and Asset Laboratories in Las Vegas, Nevada for analysis of D/F and metals.

Cape Technologies' quantitative analytical screening included:

- D/F by U.S. Environmental Protection Agency (EPA) Method SW4025, Immunoassay, expressed as tetrachlorodibenzo-p-dioxin toxic equivalents

Asset Laboratories' confirmation analyses included:

- Metals:
 - EPA Method SW6010B – Chromium, Copper, Lead, Molybdenum, and Zinc
 - EPA Method SW7471A – Mercury
 - EPA Method SW7199/SW3060A – Cr(VI)
- D/F by EPA Method SW8290, expressed as tetrachlorodibenzo-p-dioxin toxic equivalents; subcontracted to Pace Analytical Services, LLC

The laboratories were instructed to first analyze the soil samples for metals and D/F using EPA Method SW4025, the immunoassay method (Section 2.5.5). If metals and D/F TEQ results from SW4025 were less than the numerical RAG, then the laboratory was notified to begin analysis for D/F using EPA Method SW8290. Appendix E provides the analytical laboratory reports for confirmation soil samples.

2.5.5 Confirmation Soil Sample Analysis by EPA SW4025

The confirmation laboratory analysis included quantitative analytical screening for D/F using EPA Method SW4025. Method SW4025 is an immunoassay process capable of providing accurate quantitative results for TEQ, the D/F toxicity equivalent value used in the numerical RAGs (Exhibit 1-2). However, the method does not provide the individual D/F congener concentrations required for risk calculations and is not approved in California for confirmation sampling and decision-making.

The use of EPA Method SW4025 as a quantitative screening step allowed for results in 48 hours, whereas the standard EPA Method SW8290 method required a minimum of approximately 3 to 8 weeks before results could be returned. Due to the concern of leaving excavations open for an extended period, excavations could be backfilled upon receipt of SW4025 results indicating D/F TEQ concentrations less than the numerical RAGs.

Samples identified by EPA Method SW4025 as having D/F TEQ concentrations less than the numerical RAG had split samples analyzed for D/F using EPA Method SW8290. If confirmation results using SW8290 confirmed the SW4025 results, then the excavation was considered complete. If confirmation results using SW8290 indicated that D/F concentrations in the excavation exceeded the numerical RAG, then DOI was consulted. Section 3 discusses instances of SW8290 results conflicting with SW4025 results.

2.5.6 Quality Control

Field quality control samples were collected in accordance with the *Quality Assurance Project Plan Addendum for the RCRA Facility Investigation/Remedial Investigation for Soil at the Topock Compressor Station* (Jacobs 2019a) and included:

- Field duplicate (FD): A sample collected at the same time and location as a normal sample to monitor the precision of the field sampling process and the laboratory analytical process. FDs for soil were collected at a frequency of 10%.
- Matrix spike and matrix spike duplicate (MS/MSD): An MS is a normal sample spiked by the laboratory with a known concentration of target analytes and then carried through the entire preparatory and analytical procedure. The MSD is an intra-laboratory split of the same sample that is also spiked in the same manner. MS/MSDs are used to monitor bias for an analytical method in a given matrix and the precision and accuracy of the laboratory analytical procedure. Additional sample material was collected, as needed, to allow the laboratory to analyze the MS/MSDs. MS/MSDs for soil were collected at a frequency of 5%. MS/MSD samples are not reported alongside normal samples but are available in the laboratory reports.

- Equipment blank (EB): Used to monitor potential cross-contamination that could be caused by improper equipment decontamination. EBs were collected at a rate of one per day for samples that do not involve dedicated or disposable sampling equipment so are at risk for cross-contamination due to improper equipment decontamination. After the sampling equipment was fully decontaminated, it was rinsed with deionized water, and a subsample of this rinsate was collected as the EB. The EB was preserved and handled in the same manner as the normal field samples and analyzed for the same analytical parameters as the normal samples collected with that equipment that day.

Confirmation laboratory results were validated using the standard method protocols in the *Quality Assurance Project Plan Addendum for the RCRA Facility Investigation/Remedial Investigation for Soil at the Topock Compressor Station* (Jacobs 2019a). Appendix F provides the Data Quality Evaluation Report for the validation findings.

2.6 Mechanical Separation

In accordance with the Soil NTCRA Work Plan and Alternative 3 of the EE/CA (*Excavation, Mechanical Separation, Offsite Disposal of Fines, and Reuse of Coarse Material*), full-scale mechanical separation and soil screening began in January 2023. Mechanical separation and soil screening was incorporated into the removal action to minimize the volume of soil removed from the site. Mechanical separation was conducted at the SPY using a Spyder 514TS3 vibratory screening machine to separate coarse materials from fine materials.

Alternative 3 proposed break point for separating coarse from fine material was initially 3/8-inch diameter. However, results from early full-scale screening operations showed it was mechanically not feasible to separate coarse from fine materials using 3/8-inch screens. Coarse material greater than 3/8-inch contained a percentage of fines deemed incompatible with the objective of reuse of the coarse material.

Based on the screening machine output, material screened at 3/4-inch and greater was found to be effectively free of fines. To confirm that material destined for reuse as backfill in NTCRA excavations did not contain fines (and, therefore, the potential for contaminants), a 3/4-inch diameter break point was proposed. Fine material passing the 3/4-inch screens was proposed to be transported offsite for disposal. Materials retained on the 3/4-inch screens were proposed for use as onsite backfill. A field change request was approved by DOI in September 2023 to change mechanical separation and subsequent material reuse from 3/8-inch diameter to 3/4-inch diameter (PG&E 2023) (Appendix A).

Due to the fine-grained nature of soil and expected limited volume of material requiring removal, waste materials from AOCs 9, 10, and 11 were not mechanically screened. Similarly, due to the presence of extensive entrained debris, waste materials from AOC14, AOC16, and AOC27 were not mechanically screened. Mechanical separation was conducted on excavated soil from AOC1 and SWMU1 in BCW.

Mechanical separation operations continued as needed during the excavation and waste management of soil removed from AOC1 and SWMU1. Coarse particles larger than 3/4-inch were stockpiled for later reuse as backfill in BCW. Fine particles smaller than 3/4-inch were stockpiled for waste characterization and subsequent offsite disposal. An estimated 17,000 cubic yards (yd³) of soil from AOC1 and SWMU1 were processed through the mechanical separation equipment (Table 2-1). Approximately 7,000 yd³ of screened coarse material was available for use as backfill.

On January 26, 2024, DOI approved a request to conduct mechanical separation on an as-needed basis (Appendix A). The requested change allowed for crews to screen the amount of material necessary to provide the required quantity of excavation backfill material needed for restoration without generating excess material. While the request was approved, all of the excavated soil from AOC1 and SWMU1 in BCW was ultimately processed through the screening machine.

2.6.1 Coarse Material Reuse

The mechanical separation operations were estimated to produce 50% fine and 50% coarse materials based on a treatability study conducted during the EE/CA. However, the use of the larger 3/4-inch screening break point was estimated to increase the percentage of fine materials by approximately 10%. Mechanical separation operations generated approximately 7,000 yd³ of coarse material for onsite reuse. Clean coarse materials (also referred to as screened rock) resulting from mechanical separation were temporarily stockpiled in the SPY and managed in accordance with the BMPs Plan before reuse. Approximately 300 yd³ of screened rock was set aside for use during future Topock projects.

Clean coarse materials were returned to AOC1 TAA2, SWMU1 TAA1, and SWMU1 TAA2 excavations for use as backfill material following the completion of excavation activities. The material was generally placed in the bottom of the excavations up to approximately 2 feet from the surface. Section 3 provides additional TAA-specific details regarding coarse material reuse.

2.7 Excavation Backfill

DOI was notified upon completion of the excavation activities in accordance with the Soil NTCRA Work Plan, as described herein, and approval to backfill a completed TAA's excavation was requested. All TAAs were backfilled to original grade except:

- SWMU1 TAA3
- AOC1 TAA3
- AOC10 TAA2
- AOC11 TAA1

Section 3 presents the rationale for backfill decisions at the individual TAAs.

2.7.1 Backfill Sources

DOI was notified of the proposed type of backfill material to be used. Clean onsite fill material conforming to the *Topock Groundwater Remedy Soil Management Plan (SMP)* reuse criteria, which were also in compliance with DOI screening levels, was used when available (Jacobs 2019b). When clean onsite material sources were depleted, in consultation with the Tribes, DOI approved the import of clean AB material from the Campbell quarry in Lake Havasu City, Arizona. DOI also approved the import of riprap from the Rio quarry in Mohave Valley, Arizona; however, the approval was later rescinded at the request of FMIT, and riprap was then imported from the McCrossan Quarry in Kingman, Arizona. Clean screened rock material from onsite mechanical separation operations was also used to backfill AOC1 TAA2, SWMU1 TAA1, and SWMU1 TAA2 excavations.

Table 2-1 summarizes the excavation backfill quantities per TAA. Section 3 provides details about the individual TAA backfill operations.

2.7.2 Backfill Compaction

Clean soil and imported AB material used to backfill NTCRA excavations was placed in approximately 8-inch- to 12-inch-thick lifts, moisture conditioned, and compacted. Compaction testing was conducted in accordance with the Fill and Backfill Specification (Jacobs 2022a). However, compaction testing could not be conducted in locations where riprap or screened rock generated from mechanical separation operations was used, as compaction testing of placed rock is not feasible.

On November 6, 2023, DOI approved a field change request clarifying that backfill compaction testing is only needed in areas near structures or vehicle access routes (Appendix A). TAAs (or portions thereof) where compaction testing was not required were still moisture conditioned and compacted with heavy equipment; however, in-place density and moisture control testing as described in the Fill and Backfill Specification were not conducted.

These areas can generally be classified into two terrain types: Flat desert wash or steep, inaccessible hillside. Compaction testing of backfilled material placed in the bottom of desert washes was not necessary, as there is no concern for potential settlement. Compaction testing of backfilled material placed on steep hillsides was not practical due to the hazards of testing personnel accessing the steep slopes and was not needed due to the lack of nearby structures or vehicle access. Furthermore, much of the backfill material proposed for the steep hillsides was riprap, which could not be tested.

Section 3 provides the backfill compaction details for the individual TAAs.

2.8 Waste Management, Characterization, and Disposal

Wastes generated during the Soil NTCRA were primarily soil impacted with metals and D/F. Debris, including metal pipe, concrete, and ACM, were also generated and managed separately. Liquid wastes, such as collected stormwater and decontamination water, were placed in an open-top frac tank for evaporation. Miscellaneous wastes not affected by potentially contaminated material, such as trash, paper bags, and cardboard boxes, were disposed of as nonregulated waste at a Class III municipal waste landfill.

Wastes generated during the Soil NTCRA were transported under Bill of Lading from the excavation locations to approved waste management areas at the SPY or TWB. In general, nonhazardous or suspected nonhazardous wastes were transported to the SPY for staging in soil stockpiles and subsequent waste characterization. Wastes suspected to be hazardous were containerized in roll-off bins and transported to TWB. A limited volume of waste suspected to be hazardous as well as nonhazardous used PPE from NTCRA soil sampling were staged in the designated TCS hazardous material storage area, including:

- Pipe debris
- Presumed ACM
- Contaminated soil with diesel and motor oil from leaks

These wastes were handled separately as part of periodic TCS generated hazardous waste transportation and disposal.

2.8.1 Waste Characterization

Waste characterization during the Soil NTCRA was conducted in accordance with the WMP presented in the Soil NTCRA Work Plan (Jacobs 2022a). Soil stockpiles were sampled using 5-point composite sampling methods at a frequency of 1 sample per approximately 500 yd³ of stockpiled material. Heavy equipment was often used to aid in sample collection and provide an even distribution of composite sample aliquots.

Approximately 125 waste characterization samples were collected and submitted to Asset Laboratories in Las Vegas, Nevada for the following analyzes:

- D/F by EPA Method SW8290
- Total metals by EPA Method SW6010B, Cr(VI) by EPA Method SW7199, and mercury by EPA Method SW7471A
- Metals toxicity characteristic leaching procedure (TCLP), if needed based on total metal concentrations exceeding the TCLP threshold concentration

- Metals soluble threshold limit concentration (STLC), if needed based on total metal concentrations exceeding the STLC threshold concentration
- Polychlorinated biphenyls (PCBs) by EPA Method SW8082
- Pesticides by EPA Method SW8081A
- Total petroleum hydrocarbons (TPH) gasoline-range organics (GRO) and diesel-range organics (DRO) by EPA Method SW8015
- Toxicity by EPA Method 1311, corrosivity by EPA Method 9040C, and ignitability by EPA Method 1010A
- Asbestos

Volatile organic compound (VOC) and semivolatile organic compound (SVOC) analyses were completed by Eurofins Calscience in Tustin, California, an Arizona-certified lab; certification is a requirement of profiling waste for disposal at La Paz Landfill in Parker, Arizona. Analyses were conducted with the following methods:

- SVOCs by EPA Method SW8270
- VOCs by EPA Method SW8260

Solid wastes generated during the Soil NTCRA were characterized as follows:

- Nonhazardous
- Non-RCRA hazardous, including friable asbestos and STLC exceedances of chromium
- RCRA hazardous, including TCLP and total threshold limit concentration (TTL) exceedances of chromium

Table 2-2 summarizes the waste types for each of the individual TAAs. Appendix G provides analytical laboratory reports for waste characterization samples.

2.8.2 Waste Profiling

Waste profiles were prepared for each unique waste generated during the Soil NTCRA based on the waste characterization results. Draft profiles and laboratory analytical reports were submitted to the designated disposal facility for review and approval. Table 2-2 summarizes the approved profiles, which are provided for reference in Appendix H.

2.8.3 Waste Generator Identification

Wastes generated during the project were profiled for disposal under the appropriate facility's EPA Generator ID based on the waste type and point of generation, as follows:

- Nonhazardous wastes generated at TAAs adjacent to TCS were disposed of under EPA Generator ID CAR000181560.
- Non-RCRA and RCRA hazardous wastes generated at TAAs adjacent to TCS were disposed of under EPA Generator ID CAR000348698.
- Non-RCRA hazardous wastes generated at the SPY were disposed of under EPA Generator ID CAC003220396. This temporary ID was required after AOC14 TAA1 wastes brought to the SPY were discovered to contain friable asbestos. The temporary ID was valid from March 1 to June 1, 2023.
- Non-RCRA hazardous wastes generated at AOC14 were disposed of under EPA Generator ID CAC003257474. This temporary ID was required due to the presence of friable asbestos at AOC14 TAA1 discovered during the initial phase of work, which required the waste to be direct hauled to La Paz Landfill in Parker, Arizona. The temporary ID was valid from October 20, 2023 through January 20, 2024.

- Non-RCRA hazardous wastes generated at the SPY were disposed of under EPA Generator ID CAL000483096. This permanent ID was obtained on January 10, 2024, after SWMU1 TAA2 wastes staged at the SPY were characterized as non-RCRA hazardous waste.

2.8.4 Waste Transportation and Disposal

Nonhazardous wastes generated during the Soil NTCRA were primarily transported by GWP. MP Environmental Services, Inc. (MPe) supported transportation of nonhazardous waste, as needed. Non-RCRA and RCRA hazardous wastes were transported by MPe (Transporter ID CAT00624247).

Nonhazardous and non-RCRA hazardous wastes generated during the Soil NTCRA were transported to Republic Services La Paz Landfill in Parker, Arizona. RCRA hazardous wastes were transported to US Ecology Landfill in Beatty, Nevada.

Waste shipped from the TCS staging area was transported by Clean Harbors to the following Clean Harbors facilities:

- RCRA hazardous waste was shipped to Clive, Utah.
- Non-RCRA hazardous and nonhazardous wastes were shipped to Wilmington, California.
- Nonhazardous waste was shipped to San Jose, California.
- Nonhazardous waste was shipped to Clive, Utah.

A PG&E Representative or Designee signed the waste manifest that accompanied each load of Soil NTCRA waste to the appropriate landfill. Appendix H provides documentation of transportation and disposal, including final signed manifest and landfill weight tickets. Appendix H also provides a detailed Waste Tracking Log. Exhibit 2-1 provides an overall summary of wastes disposed during the project.

Exhibit 2-1. Waste Disposal Summary

Disposal Facility	Waste Type	Quantity
La Paz Landfill, Parker, Arizona	Nonhazardous	Approximately 38,400 tons
La Paz Landfill, Parker, Arizona	Non-RCRA hazardous	Approximately 3,600 tons
US Ecology Landfill, Beatty, Nevada	RCRA hazardous	Approximately 10 tons

Table 2-1 and Section 3 discuss the individual TAA waste quantities. To save space in the SPY, stockpiles from different TAAs but approved for disposal under the same profile were often combined before loading and transportation to the landfill. Therefore, the exact tonnage per TAA may not be known. The estimated waste quantities in Table 2-1 are based on a conversion rate calculated by dividing the total tons per waste profile by the total cubic yards of the TAAs that were disposed of under the same waste profile. Conversion rates ranged from 1.27 to 1.77 tons/yd³.

3. Target Action Area Specific Removal Action Summary

This section summarizes the TAA-specific removal actions conducted in general accordance with the Soil NTCRA Work Plan (Jacobs 2022a). Required variances and field changes to the Work Plan are discussed in this section and documented in Appendix A.

Soil NTCRA activities at each of the individual TAAs are presented in separate subsections that include the following discussion topics:

- **TAA Background** – Summarizes the TAA's physical site conditions and historical understanding of contamination present at the TAA.
- **Removal Summary** – Provides dates and a detailed description of the actions conducted to remove soil and debris with contaminant concentrations exceeding the numerical RAGs. Figures 3-1 through 3-15 show the extents of the individual TAA excavations on the individual site maps. The section presents representative photos before, during, and after removal activities (Appendix I).
- **Contamination Summary** – Summarizes the nature and extent of contamination encountered during the Soil NTCRA. If warranted, a **Remaining Contamination** subsection is included to detail the contamination encountered during the Soil NTCRA but not removed. The rationale for leaving contamination in place is provided. Section 3.16 summarizes the contamination remaining in place after completion of the Soil NTCRA.
- **Confirmation Soil Sampling Results** – Presents the results of confirmation soil sidewall and floor samples collected from the TAA. Additional details are provided for soil sample locations where contaminants exceeded the numerical RAGs. The section references site figures (Figures 3-1 through 3-15) and confirmation soil sample results tables (Tables 3-1 through 3-15).
- **Waste Management Summary** – Summarizes the waste type and quantity generated from the TAA and its final disposition.
- **Backfill and Site Stabilization** – Discusses the excavation backfill procedures and materials used. The section references post-Soil NTCRA photos provided in Appendix I.

Soil NTCRA field activities began in July 2022 at AOC11 TAA1. Work progression and movement to subsequent TAAs were based on proximity of the TAAs to each other, as well as avoiding conflicts with other concurrent construction projects. Impacts to the Soil NTCRA schedule were governed by the following:

- Early discussions with DOI and Tribal Representatives regarding the step-out excavation and approval process
- Contamination beneath mesquite trees in East Ravine, specifically at AOC10 TAA2 and AOC10 TAA4, required multiple discussions with DOI, Tribal, and HNWR Representatives
- Concurrent construction of the Groundwater Remedy, specifically the installation of the I2 pipeline crossing BCW and the C18 pipeline within East Ravine, required multiple mobilizations between BCW and East Ravine
- Monsoon rains flooded East Ravine in August and September of 2022 and March 2023; additionally, work was rescheduled in BCW to avoid the monsoon season in summer and fall 2022
- Bat Roost 2 located in the culvert beneath I-40 had an associated mitigation buffer during the bat maternity season from March 15 to August 31 that prohibited work at AOC1 TAA1 and AOC14 TAA1 between those dates

- ACM discovery at AOC14 TAA1 required procurement of an Asbestos Contractor and revised removal requirements
- In late 2023, additional crews and equipment helped to accelerate the NTCRA activities

Soil NTCRA field activities were considered complete on May 20, 2024, following removal of waste from the SPY and receipt of post-stockpile confirmation soil sample results.

3.1 SWMU 1 – Former Percolation Bed – TAA 1

This section describes the Soil NTCRA activities for SWMU1 TAA1.

3.1.1 Target Action Area Background

SWMU1 TAA1 is located in BCW west of TCS and is primarily on PG&E property (Figure 3-1). The southwestern corner of the TAA extends onto HNWR property. The TAA is flat; sparsely vegetated; and covered with depositional sands, gravels, and boulders. The area to the southeast of the TAA is a native conglomerate rocky outcrop with a near-vertical cliff face. Appendix I provides a pre-removal site photograph. BCW is an active wash that frequently floods, impacting the surface grade and vegetation through the TAA.

From about 1951 to approximately 1971, TCS discharged wastewater from the cooling towers to an impoundment in BCW, centered near SWMU1 TAA1, and allowed it to percolate into the ground or evaporate. A historical exploratory well that was likely used for water supply in the early 1950s and disposal in the 1960s, TCS-4, is located at AOC1 TAA1, just north of SWMU1 TAA1 (CH2M 2018). Historical soil sample results throughout SWMU1 TAA1 indicate chromium- and D/F-contaminated soil and discolored soil was present at depths up to 15 feet bgs. The detailed understanding of the nature and extent of contamination at the TAA is available in the RFI/RI Report Volume 3 (Jacobs 2024a).

3.1.2 Removal Summary

Removal activities at SWMU1 TAA1 occurred in four phases due to overlapping schedules with other TCS projects; the potential for BCW to flow during monsoon season; and the availability and approval to work at other time-critical TAAs. The section describes the removal phases for SWMU1 TAA1.

3.1.2.1 October 2022

The initial removal phase began in October 2022 and was focused on the installation of a clean soil corridor for a future subsurface utility, Groundwater Remedy pipeline I2. The proposed utility crossed the TAA from the lower end of the TCS access road to the lower end of the BCW access road (Figure 3-1). The clean soil corridor was 10 feet deep and 10 feet wide on either side of the proposed utility alignment, for a total width of 20 feet. The corridor was planned to be immediately backfilled due to the imminent utility installation and to also allow access for an emergency repair of the nearby elevated PG&E gas pipeline. It was acknowledged that contamination would remain in the sidewalls of the excavation and be addressed during future removal phases.

Excavation began in the northeastern corner of the TAA where greenish-gray soil with elevated XRF results for chromium was observed between approximately 5 and 6 feet bgs (Appendix I). The greenish-gray soil extended beyond the TAA boundary where the utility corridor was required. DOI approved step-out excavations to remove the chromium-impacted soil beyond the TAA boundary.

Excavation of contaminated soil continued east to the lower end of the TCS access road and to a depth of 10 feet. Excavation was then conducted to the northwest of the TAA to complete the utility corridor to the lower end of the BCW access road. The thick layer of greenish-gray discolored soil was evident throughout the excavation from approximately 5 to 6 feet bgs. An approximately 3-inch-diameter bare steel pipe (no wrap or coating), historically connected to TCS-4, was encountered entering the excavation from the north (Appendix I). Green- and black-stained soil were observed surrounding the pipe. The pipe was removed and properly disposed, as described in Section 2.8.

Excavation of the clean soil corridor was completed in late October 2022. Confirmation soil sample results for SWMU1TAA1-CW2-5 and SWMU1TAA1-CW3-5 indicated chromium and D/F TEQ were present at concentrations exceeding the numerical RAGs in the northern and southern sidewalls of the corridor and would be removed at a future date. Soil on the bottom of the corridor also contained chromium and D/F TEQ at concentrations exceeding the numerical RAGs. Removal of contaminated material from deeper than 10 feet bgs was not conducted because the objectives of the Soil NTCRA were to remove contaminants exceeding the RAGs, which are only applicable within 10 feet of the ground surface, and the residual contaminated material is below the depth human and ecological receptors at the site could reasonably be exposed to (DOI 2021).

Backfill of the clean soil corridor, as described in Section 3.1.6, was completed in late October 2022.

3.1.2.2 January to February 2023

The second removal phase at SWMU1 TAA1, as well as removals at nearby AOC1 TAA3 to the east, began in January 2023. Confirmation soil samples from the AOC1 TAA3 sidewalls had chromium, Cr(VI), and D/F TEQ at concentrations exceeding the numerical RAGs. The contamination was detected in greenish-gray soil collected within 3 feet of the surface. Visual observation and XRF screening indicated similar material was present in areas surrounding AOC1 TAA3 and connecting with SWMU1 TAA1. In discussion with DOI, removal of the contaminated soil beyond the AOC1 TAA3 boundary was thereafter associated with SWMU1 TAA1.

The January to February 2023 phase of work focused on the slope from the TAA boundary east to the TCS access road. A late 2022 storm damaged the TCS access road and washed out the newly installed Groundwater Remedy I2 utilities. Removal of contaminated soil in the area was required due to the concurrent redesign and repair of the TCS access road and I2 piping. Excavation in the area moved south from the stopping point of the October 2022 phase: the lower end of the TCS access road. Greenish-gray soil with elevated chromium concentrations detected using XRF was encountered at varying depths along the slope. Removal of a berm along the western side of the TCS access road was required due to the presence of greenish-gray soil with chromium concentrations exceeding the numerical RAG detected using XRF. Excavation along the edge of the TCS access road also included the removal of the damaged utilities.

Excavation continued until confirmation soil samples indicated contaminant concentrations were less than numerical RAGs. Backfill of the excavation along the slope east of the TAA boundary was not initially conducted due to the pending repair of the TCS access road, which included a redesigned slope from the TCS access road grade down to BCW. Backfill was subsequently completed by a non-Soil NTCRA Contractor.

3.1.2.3 June 2023

The third removal phase addressed greenish-gray soil south of the clean soil corridor excavated during the October 2022 phase. Excavation removed greenish-gray soil with chromium concentrations exceeding the numerical RAG detected using XRF from the area east of the TAA boundary to the TCS access road, where

excavation activities ended during the January to February 2023 phase. A sidewall confirmation soil sample, SWMU1TAA1-CW16-5, confirmed the excavation removed contaminated soil to the east. Excavation to the north was bounded by the clean soil corridor. Excavation continued to the south until late June 2023 before crews mobilized to another TAA.

Confirmation sidewall samples were not collected to the south, as greenish-gray soil with elevated XRF results for chromium were still present and scheduled for removal. Confirmation floor samples SWMU1TAA1-CF11-10 and SWMU1TAA1-CF12-10 indicated contaminant concentrations at 10 feet bgs were less than the numerical RAGs in this area.

Backfill of the excavation, as described in Section 3.1.6, was completed in October 2023.

3.1.2.4 September to December 2023

The fourth and final removal phase removed most of the contamination present in the TAA. Excavation removed greenish-gray soil with elevated XRF results for chromium south of the clean soil corridor. The discolored soil lens extended to the western edge of the TAA boundary. Confirmation soil samples from greenish-gray soil collected from the western sidewall, SWMU1TAA1-CW20-6 and SWMU1TAA1-CW24-7, had chromium and D/F TEQ concentrations exceeding the numerical RAGs. DOI approved step-out excavations to the west of the TAA boundary to remove the contaminated soil. Step-out excavations continued to the west until confirmation soil sampling results were less than the numerical RAGs.

Excavation on the southeastern edge of the TAA boundary removed a surface berm of soil heavily impacted with greenish-gray soil. The ground surface elevation sloped upward steeply to the southeast, as the excavation encroached upon a steep, native, rocky outcrop. Contamination was not observed on the slope of the steep, rocky outcrop. Sidewall sample SWMU1TAA1-CW23-2 collected from the base of the steep slope contained chromium at a concentration exceeding the numerical RAGs. Due to the location beneath the steep rock face, additional removal to the east could not be safely performed (Appendix I). Other nearby sidewall and floor confirmation soil samples did not have contaminants at concentrations exceeding the numerical RAGs, suggesting the extent of contamination represented by SWMU1TAA1-CW23-2 is limited.

Excavation removed soil to the south of the TAA boundary until soil was no longer visually impacted and XRF results for chromium were less than the threshold value. Confirmation sidewall samples indicated contaminant concentrations were less than the numerical RAGs at the southern TAA boundary and in the soil around existing monitoring well MW-09. Impacted soil was not observed beyond MW-09.

Excavation to the north of the clean soil corridor removed greenish-gray soil with elevated XRF results for chromium. The TCS-4 discharge pipe was again encountered at approximately 4 feet bgs on the western side of the excavation. The pipe and the associated stained soil were removed as the excavation extended to the north toward TCS-4. Excavation activities north of sample location SWMU1TAA1-CW34-4 were conducted as part of activities at AOC1 TAA2.

Backfill of the excavation, as described in Section 3.1.6, was completed in December 2023.

Excavation activities at SWMU1 TAA1 were completed in December 2023 and included the removal of approximately 14,500 yd³ of contaminated soil. Figure 3-1 shows the full extent of the SWMU1 TAA1 excavation.

3.1.3 Contamination Summary

Contamination at SWMU1 TAA1 and approved step-out excavations was primarily encountered in a lens of greenish-gray soil between approximately 5 and 7 feet bgs. The greenish-gray soil contained chromium and D/F TEQ at concentrations exceeding the numerical RAGs (Table 3-1). Other contaminants were not detected at concentrations exceeding the numerical RAGs. The greenish-gray soil was removed during the Soil NTCRA.

Analytical results from soil samples collected from SWMU1 TAA1 contained metals and D/F TEQ at concentrations exceeding the numerical RAGs, including:

- Chromium up to 3,400 mg/kg
- D/F TEQ up to 580 ng/kg

While the greatest concentrations of contaminants were detected in the greenish-gray soil between 5 and 7 feet bgs, contaminants exceeding the numerical RAGs detected through laboratory analysis and XRF screening were detected in the area from the surface to 10 feet bgs. Contamination was generally shallower upslope to the east of the TAA boundary. Historical data indicate contaminants exceeding the numerical RAGs remain at depths deeper than 10 feet bgs; however, removal below 10 feet bgs was not conducted during the Soil NTCRA.

A steel pipe approximately 3 inches in diameter, formerly connected to TCS-4, was encountered in SWMU1 TAA1 and extended north into AOC1 TAA2. At SWMU1 TAA1, the pipe was bare steel. At AOC1 TAA2, the pipe was wrapped with ACM. A sample of residue within the pipe was analyzed for waste characterization and contained chromium at a concentration of 11,000 mg/kg. Green, discolored soils and black, discolored soils were also observed within the pipe trench. The discolored soil and steel pipe within the TAA were removed.

Additional removal of a bare steel pipe was conducted from the hillside southeast of SWMU1 TAA1. The pipe historically discharged wastewater from the lower yard of TCS. Removal was required because the steel pipe was a safety hazard to workers in the excavation area. Due to the high chromium concentrations detected in the residue, the pipes were profiled as RCRA hazardous waste and transported to the US Ecology Landfill in Beatty, Nevada for disposal.

3.1.3.1 Remaining Contamination

Chromium- and D/F-impacted soil exceeding the numerical RAGs in Soil NTCRA confirmation samples remains in the floor of the excavation at depths deeper than 10 feet bgs. The remaining contamination is in the northwestern portion of the TAA excavation represented by the following confirmation floor soil samples (Figure 3-1):

- SWMU1TAA1-CF3-10
- SWMU1TAA1-CF4-10
- SWMU1TAA1-CF13-10
- SWMU1TAA1-CF14-10

In these confirmation samples, chromium concentrations range from 560 to 2,100 mg/kg greater than the RAG of 145 mg/kg, and D/F TEQ concentrations range from 1.4 to 580 ng/kg greater than the RAG of 190 ng/kg (Table 3-16). Although the D/F TEQ concentrations exceed the selected RAG of 190 ng/kg based on the RBRG for desert shrew, two of the four samples contain TEQ concentrations at or less than the alternate RBRG calculated for this receptor (360 ng/kg) (Arcadis 2019).

Removal of the contaminated material from deeper than 10 feet bgs was not conducted because the objectives of the Soil NTCRA were to remove contaminants exceeding the RAGs, which are only applicable within 10 feet of the ground surface, and the residual contaminated material is below the depth human and ecological receptors at the site could reasonably be exposed to (DOI 2021). Additionally, the residual concentrations in the excavation floor are unlikely to be associated with unacceptable risk to human or ecological receptors based on the finding of no unacceptable risk for potential exposures at this depth interval in the 2019 Soil HHERA (before Soil NTCRA removal actions).

Chromium-impacted soil exceeding the numerical RAG remains in the sidewall beneath the steep, native, rocky outcrop in the southeastern corner of the TAA. The remaining contamination is represented by confirmation sample SWMU1TAA1-CW23-2 that had chromium at 920 mg/kg, exceeding the RAG of 145 mg/kg (Figure 3-1 and Table 3-16). Removal of the contaminated material could not be completed safely due to the location beneath the steep, rocky outcrop.

Historical RFI/RI samples outside of or beneath the TAAs may be present at concentrations greater than the Soil NTCRA RAGs; however, because they were not part of the TAA, they were outside of the scope of the Soil NTCRA. RFI/RI Report Volume 3 summarizes the nature and extent of contamination before the Soil NTCRA removal (Jacobs 2024a).

3.1.4 Confirmation Soil Sampling Results

Confirmation soil samples were collected from the excavation sidewalls and floor and analyzed in accordance with the Soil NTCRA Work Plan. At SWMU1 TAA1, confirmation floor samples were generally collected at 10 feet bgs, except to the east of the TAA along the slope up to the TCS access road, where contamination was encountered at shallower depths. Sidewall samples were generally collected from approximately 5 to 7 feet where the greatest contaminant impacts were encountered, except to the east of the TAA along the slope up to the TCS access road, where contamination was encountered at shallower depths. Figure 3-1 shows the confirmation soil sample locations. Table 3-1 summarizes the confirmation soil sample results.

Eighty-two confirmation soil samples were collected from SWMU1 TAA1. Confirmation soil samples were collected at the original TAA boundary and initially proposed excavation depths as well as at step-out locations where numerical RAGs were exceeded. Locations with RAG exceedances and subsequent removal actions, where feasible or warranted, are as follows:

- At SWMU1TAA1-CF3-10, soil from the excavation floor contains chromium at a concentration of 1,800 mg/kg. Because the sample was collected from below the RAO maximum depth of 10 feet bgs, no further excavation was conducted.
- At SWMU1TAA1-CF4-10, soil from the excavation floor contains chromium at a concentration of 560 mg/kg and D/F TEQ at 200 ng/kg. Because the sample was collected from below the RAO maximum depth of 10 feet bgs, no further excavation was conducted.
- At SWMU1TAA1-CF9-6, soil from the floor of the excavation contained chromium at a concentration of 240 mg/kg. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, SWMU1TAA1-CF9a-7, were less than the numerical RAG.
- At SWMU1TAA1-CF10-6, soil from the floor of the excavation contained chromium at a concentration of 170 mg/kg. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, SWMU1TAA1-CF10a-7, were less than the numerical RAG.

- At SWMU1TAA1-CF13-10, soil from the excavation floor contains chromium at a concentration of 2,100 J mg/kg and D/F TEQ at 370 ng/kg. Because the sample was collected from below the RAO maximum depth of 10 feet bgs, no further excavation was conducted.
- At SWMU1TAA1-CF14-10, soil from the excavation floor contains chromium at a concentration of 1,400 mg/kg and D/F TEQ at 580 ng/kg. Because the sample was collected from below the RAO maximum depth of 10 feet bgs, no further excavation was conducted.
- At SWMU1TAA1-CW2-5, soil from the sidewall of the excavation contained chromium at a concentration of 1,800 mg/kg. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, SWMU1TAA1-CW2a-5, were less than the numerical RAG.
- At SWMU1TAA1-CW3-5, soil from the sidewall of the excavation contained chromium at a concentration of 1,900 mg/kg. D/F TEQ concentrations detected with EPA Method SW4025 exceeded the numerical RAG, but the sample was not analyzed using EPA Method SW8290 due to the elevated chromium concentrations. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, SWMU1TAA1-CW3a-5, were less than the numerical RAG.
- At SWMU1TAA1-CW7-5, soil from the sidewall of the excavation contained chromium at a concentration of 160 J mg/kg. Step-out excavations were conducted to remove the contaminated soil, and the results from subsequent confirmation soil samples, SWMU1TAA1-CW7a-5 and SWMU1TAA1-CW7b-6, were less than the numerical RAG.
- At SWMU1TAA1-CW10-2, soil from the sidewall of the excavation contained chromium at a concentration of 400 mg/kg. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, SWMU1TAA1-CW10a-2, were less than the numerical RAG.
- At SWMU1TAA1-CW20-6, soil from the sidewall of the excavation contained chromium at a concentration of 3,400 mg/kg. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, SWMU1TAA1-CW20a-5, were less than the numerical RAG.
- At SWMU1TAA1-CW23-2, soil from the sidewall of the excavation contains chromium at a concentration of 920 mg/kg. The sample location represents soil beneath the steep, rocky outcrop and could not safely be removed.
- At SWMU1TAA1-CW24-7, soil from the sidewall of the excavation contained chromium at a concentration of 1,400 mg/kg. D/F TEQ concentrations detected using EPA Method SW4025 exceeded the numerical RAG, but the sample was not analyzed using EPA Method SW8290 due to the elevated chromium concentrations. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, SWMU1TAA1-CW24a-5, were less than the numerical RAG.
- At SWMU1TAA1-CW25-7, soil from the sidewall of the excavation contained chromium at a concentration of 1,600 mg/kg. Step-out excavations were conducted to remove the contaminated soil, and the results from the following subsequent confirmation soil samples were less than the numerical RAG:
 - SWMU1TAA1-CW25a-5
 - SWMU1TAA1-CW27-5
 - SWMU1TAA1-CW28-5
- At SWMU1TAA1-CW26-7, soil from the sidewall of the excavation contained chromium at a concentration of 450 J mg/kg and at and SWMU1TAA1-CW26-7FD was 230 J mg/kg. Step-out

excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, SWMU1TAA1-CW26a-5, were less than the numerical RAG.

- At SWMU1TAA1-CW29-5, soil from the sidewall of the excavation contained chromium at a concentration of 180 mg/kg. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, SWMU1TAA1-CW29a-4, were less than the numerical RAG.
- At SWMU1TAA1-CW32-4, soil from the sidewall of the excavation contained D/F TEQ at a concentration of 203 ng/kg detected by EPA Method SW4025. The soil was removed based on the screening-level D/F TEQ results detected by SW4025; and the results from a subsequent confirmation soil sample, SWMU1TAA1-CW32a-4, were less than the numerical RAG. Subsequent D/F TEQ results using EPA Method SW8290 from the initial sample, SWMU1TAA1-CW32-4, were received after completion of the step-out excavation and were less than the numerical RAG.

3.1.5 Waste Management Summary

Excavated soil from SWMU1 TAA1 was hauled directly to the SPY and stockpiled for mechanical separation before waste characterization and disposal. An estimated 15,000 yd³ of soil was mechanically separated, generating approximately 5,800 yd³ of 3/4-inch plus rock and gravel and approximately 8,700 yd³ of waste fines.

Twenty-eight samples were collected from stockpiles of the post-separation waste fines and analyzed in accordance with the waste characterization plan described in Section 2.8.1. Analytical sample results characterized the stockpiled soil as nonhazardous waste. Republic Services approved the waste for disposal under Profile 51242315251, along with other soil from BCW. Approximately 13,500 tons of nonhazardous waste were transported to Republic Services La Paz Landfill in Parker, Arizona for disposal (Table 2-1).

Appendix H contains the Waste Tracking Log, which summarizes the waste transportation and disposal details, and the final signed waste manifests and disposal facility weight tickets.

3.1.6 Backfill and Site Stabilization

This section describes the backfill and site stabilization activities for SWMU1 TAA1.

3.1.6.1 October 2022

Backfill of the clean soil corridor was completed in October 2022 to allow for access to BCW for the PG&E Gas Span emergency repair project and installation of a PG&E groundwater remedy pipeline. DOI approved the use of excess soil and rocks generated from groundwater remedy construction for NTCRA backfill. This material was previously approved for reuse and stored at the SPY.

Due to the steep sidewalls of the clean corridor, backfill placement occurred from the access ramp on the southern side working north. Backfill material was placed in 8- to 12-inch lifts, watered, and compacted. Compaction testing was conducted on material within 5 feet of the ground surface to confirm placement of the soil to 90% of the maximum dry density.

3.1.6.2 January to February 2023

Backfill of the excavation along the slope east of the TAA, including AOC1 TAA3, was not initially conducted due to the pending redesign and repair of the TCS access road. Backfill was subsequently completed by a non-Soil NTCRA Contractor during repair of the TCS access road, which included a

redesigned slope from the TCS access road grade down to BCW. The area was backfilled with AB material from Campbell's Quarry in Lake Havasu City, Arizona.

3.1.6.3 June 2023

A portion of the excavation completed to the south of the I2 clean soil corridor was backfilled in June 2023 with 3/4-inch-plus material (screened rock) from screened BCW soil excavated during the Soil NTCRA. The 3/4-inch-plus material was placed in the bottom of the excavation up to approximately 5 feet bgs. AB material from Campbell's Quarry in Lake Havasu City, Arizona was used to complete the backfill to ground surface. AB material was used to backfill the full excavation depth along the northwestern boundary of the excavation where the BCW access road crossed the TAA.

Compaction testing was conducted to confirm placement of the AB material to 90% of the maximum dry density.

3.1.6.4 September to December 2023

Backfill operations during late 2023 were staggered behind removal activities in the southern portion of the TAA and to the north of the I2 clean soil corridor, including the former TCS-4 pipeline trench. The backfill material primarily consisted of 3/4-inch-plus material (screened rock) resulting from the screening of BCW soil excavated during the Soil NTCRA. The 3/4-inch-plus material was placed in the bottom of the excavations to within approximately 2 feet of the ground surface. Compaction testing of the screened rock is not feasible; therefore, it was not conducted.

Well-graded AB material from Campbell's Quarry in Lake Havasu City, Arizona was used to complete the backfill to ground surface. Compaction testing was conducted to confirm placement of the AB material to 90% of the maximum dry density.

Appendix I shows the site conditions upon completion of the Soil NTCRA activities in December 2023.

3.2 SWMU 1 – Former Percolation Bed – TAA 2

This section describes the Soil NTCRA activities for SWMU1 TAA2.

3.2.1 Target Action Area Background

SWMU1 TAA 2 is located on the eastern slope of BCW west of TCS and straddles HNWR property on the west and PG&E property on the east (Figure 3-2). The excavation area is along the toe of the steep, inaccessible slope up to TCS. The top of the TAA is along a slope that is sparsely vegetated and consists of native conglomerate rock covered with erosional deposits and TCS fill material sloughing down the slope. The bottom of the TAA is within BCW and consists of depositional sand, gravel, and boulders. A thick, white powder (often cemented) was intermittently visible at the toe of the slope. Appendix I provides a pre-removal site photograph.

Chromium-contaminated soil and white powder was present within the TAA from historical discharges and impoundment of cooling tower water for percolation in BCW. Historical soil sample results indicate the greatest contaminant concentrations are primarily associated with white powder material located near the toe of the slope; however, natural sloughing and erosion through BCW has buried contaminants. The detailed understanding of the nature and extent of contamination at the TAA is available in the RFI/RI Report Volume 3 (Jacobs 2024a).

3.2.2 Removal Summary

Soil NTCRA activities at SWMU1 TAA2 began in December 2023 with dismantling of the TCS security fence east of the TAA to allow for access to the top of the slope. A temporary fence was installed to allow for a long-reach excavator to remove overburden material on the top of the slope and allow for safe excavation within the TAA. Removal actions at the adjacent SWMU1 TAA3 were conducted during the overburden removal from the top of the slope (Section 3.3).

Once loose overburden soil was removed from the top of the slope, an elevated soil pad was constructed along the base of the slope to allow for the long-reach excavator to reach material on the slope that could not be reached from the top. A geohazard evaluation of the remaining slope indicated that contaminated soil excavations into the base of the slope should be conducted in short segments and backfilled immediately to support the remaining hillside. Therefore, excavations were limited to the amount that could be removed and backfilled at least partially in a single day.

Several pothole excavations were also conducted to better understand the lateral extent of the white powder in the base of the slope. Observations from the potholes and historical soil sample data from the adjacent TAA, SWMU1 TAA1, provided a better understanding of the lateral extent of the contamination and the expected areas where the contamination extended beyond the TAA boundaries. Due to the difficulty of removing material and the need to backfill immediately, PG&E received DOI approval to step-out to the north, south, east, and west of SWMU1 TAA2 boundary, as needed.

Removal operations, including step-outs, were conducted in sections from south to north. Excavations were required to approximately 4 feet below the slope surface to remove the white powder, discolored materials, and soil with elevated XRF results. Confirmation soil samples were collected immediately from the excavation sidewalls and floor and analyzed in accordance with the Soil NTCRA Work Plan. Sample locations generally appeared to be native soil or clean slough material.

Excavated sections were backfilled immediately, as described in Section 3.2.6. Removal activities were completed in December 2023 and included the removal of approximately 2,816 yd³ of contaminated soil, including overburden. Figure 3-2 shows the full extent of the SWMU1 TAA2 excavation.

3.2.3 Contamination Summary

Contamination at SWMU1 TAA2 and approved step-out excavations was primarily encountered in a lens of white powder at the base of the TAA's slope at approximately 3 feet bgs. The white powder lens was surrounded by depositional sand, gravel, and boulders of BCW and was intermittently visible on the surface, depending on recent erosion or deposition from flows within BCW.

Historical soil samples collected within the TAA indicated high concentrations of chromium and Cr(VI) associated with the white powder; historical samples were not analyzed for D/F. The white powder observed in the TAA was removed during the Soil NTCRA (Appendix I). Soil beyond the white powder did not contain contaminants exceeding the numerical RAGs (Table 3-2).

3.2.4 Confirmation Soil Sampling Results

Confirmation soil samples were collected from the excavation sidewalls and floor and analyzed in accordance with the Soil NTCRA Work Plan. At SWMU1 TAA2, confirmation floor samples were collected at 4 feet bgs, below the depth where the white powder was observed. Sidewall samples were collected from approximately 1.5 to 3 feet bgs, corresponding with the depth of the removed white powder. Figure 3-2 shows the confirmation soil sample locations. Table 3-2 summarizes the confirmation soil sample results.

Thirteen confirmation soil samples were collected from SWMU1 TAA2. Confirmation soil sample results at the extent of the original TAA boundary and initially proposed excavation depth were less than the numerical RAGs.

3.2.5 Waste Management Summary

Excavated soil from SWMU1 TAA2 was hauled directly to the SPY and stockpiled before waste characterization and disposal. Due to the presence of white powder in soil removed from this TAA, mechanical separation was not conducted. Six soil stockpile samples were collected and analyzed in accordance with the waste characterization plan described in Section 2.8.1. Analytical results from two samples, SWMU1TAA2-WC3 and SWMU1TAA2-WC4, representing one large stockpile, exceeded the STLC threshold for chromium; and the soil was characterized as non-RCRA hazardous waste. Analytical results for the remaining four samples, representing two other large stockpiles, characterized the remaining soil as nonhazardous waste.

On January 3, 2024, PG&E applied for a permanent EPA ID for the SPY due to the presence of non-RCRA hazardous waste. DTSC approved the request on January 10, 2024, and the SPY was given EPA ID CAL000483096. Republic Services approved disposal of the non-RCRA hazardous waste at the La Paz Landfill in Parker, Arizona under Profile 5124240825. Between February 12 and 21, 2024, MPE hauled 1,116 tons of non-RCRA hazardous waste to La Paz Landfill for disposal.

Republic Services approved the remaining nonhazardous waste for disposal under Profile 51242315251, along with other soil from BCW. Approximately 3,232 tons of nonhazardous waste were transported to La Paz Landfill in Parker, Arizona for disposal (Table 2-1).

Appendix H contains the Waste Tracking Log, which summarizes the waste transportation and disposal details, and the final signed waste manifests and disposal facility weight tickets.

3.2.6 Backfill and Site Stabilization

Due to the steep slope, backfill operations were conducted immediately after excavating sections of contaminated soil. Excavated sections were backfilled using coarse gravel, cobbles, and boulders resulting from the screening of BCW soil excavated during the Soil NTCRA. Backfill operations were completed in December 2023. Appendix I shows the site conditions upon completion of the Soil NTCRA activities in December 2023.

In March 2024, during closeout of the BCW ERTC, Tribal Monitors noted the rock (riprap) on the slope did not look natural and expressed concern about the visual impact of the material. PG&E agreed to cover the rock with well-graded AB soil from Campbells Quarry in Lake Havasu City, Arizona to address the Tribal Monitors' concern. Approximately 420 yd³ of material were placed on top of the SWMU1 TAA2 riprap. Appendix I shows site conditions upon completion of the task in April 2024.

3.3 SWMU 1 – Former Percolation Bed – TAA 3

This section describes the Soil NTCRA activities for SWMU1 TAA3.

3.3.1 Target Action Area Background

SWMU1 TAA3 is located on PG&E property just outside the TCS fence and at the top of the slope above SWMU1 TAA2 and BCW (Figure 3-3). The TAA is sparsely vegetated and consists of fill material from construction of TCS. Appendix I provides a pre-removal site photograph.

From about 1951 to approximately 1971, the facility discharged wastewater from the cooling towers to the percolation bed below the TAA. Additionally, the TAA may have been impacted from the release of surface drainage or intentional disposal of impacted materials along the hillside. Historical soil sample results indicate D/F contamination in the surface soil was present within the TAA. While deeper sample results are not available, extensive contamination was not expected at this TAA due to the steepness of the slope. The detailed understanding of the nature and extent of contamination at the TAA is available in the RFI/RI Report Volume 3 (Jacobs 2024a).

3.3.2 Removal Summary

Removal activities at SWMU1 TAA3 began in November 2023 with the dismantling of the TCS security fence east of the TAA to allow for access to the top of the slope. A temporary fence was installed to keep the site secure and allow for excavation and loading of haul trucks from TCS.

The initial excavation removed contaminated soil with limited construction debris to the lateral extent of the TAA boundaries and to a depth of 3 feet below the surrounding surface grade. A long-reach excavator was required due to the position of the TAA on the slope. Due to the steep, inaccessible slope, surveying of the excavation could not be conducted. Therefore, the excavation extent and depth were visually estimated. In addition to excavation of contaminated soil within the TAA, overburden soil on the adjacent hillside was removed to allow for safe removal operations of SWMU1 TAA2 at the base of the slope. Excavation quantities include the adjacent overburden.

Results of the initial round of confirmation soil sampling indicated that chromium, lead, and D/F TEQ concentrations exceeded the numerical RAGs in the floor sample, SWMU1TAA3-CF1-3, and in the samples from the northern sidewall, SWMU1TAA3-CW2-2 and eastern sidewall, SWMU1TAA3-CW4-2. DOI approved a request to complete a step-out excavation to remove the contaminants. Additional soil removal was required following the step-out excavation to the east due to a narrow section of unsupported soil remaining along the crest of the slope that presented a safety hazard to workers at the base of the slope (Appendix I). Results from soil samples collected upon completion of the step-out excavation were less than the numerical RAG. Figure 3-3 shows the full extent of the SWMU1 TAA3 excavation.

Excavation activities were completed in January 2024 and included the removal of approximately 63 yd³ of contaminated soil, including overburden.

3.3.3 Contamination Summary

Contamination at SWMU1 TAA3 and approved step-out excavations was not visually evident; for example, discolored soil was not observed. The soil contained minimal construction debris and chromium, lead, and D/F TEQ at concentrations exceeding the numerical RAGs (Table 3-3). Contaminants exceeding the numerical RAG were removed during the Soil NTCRA.

3.3.4 Confirmation Soil Sampling Results

Confirmation soil samples were collected from the excavation sidewalls and floor and analyzed in accordance with the Soil NTCRA Work Plan. At SWMU1 TAA3, one confirmation floor sample was collected at depth of approximately 3 feet bgs, the extent of the excavation. Sidewall samples were collected from approximately 2 feet deep, the approximate midpoint of the excavation sidewall. Figure 3-3 shows the confirmation soil sample locations. Table 3-3 summarizes the confirmation soil sample results.

Eight confirmation soil samples were collected from SWMU1 TAA3. Confirmation soil sample results were collected at the original TAA boundary and initially proposed excavation depths, as well as at step-out

locations where numerical RAGs were exceeded. Locations with RAG exceedances and subsequent removal actions are as follows:

- At SWMU1TAA3-CF1-3, soil from the excavation floor contained chromium at a concentration of 190 mg/kg. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, SWMU1TAA3-CF1a-3, were less than the numerical RAG. The subsequent confirmation sample was inadvertently given the same sample depth of 3 feet bgs. However, the sample was collected from 3.5 feet bgs.
- At SWMU1TAA3-CW2-2, soil from the northern sidewall contained lead at a concentration of 59 mg/kg. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, SWMU1TAA3-CW5-2, were less than the numerical RAG.
- At SWMU1TAA3-CW4-2, soil from the eastern sidewall contained D/F TEQ at a concentration of 230 ng/kg. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, SWMU1TAA3-CW4a-1.5, were less than the numerical RAG.

3.3.5 Waste Management Summary

Excavated soil from SWMU1 TAA3 was hauled directly to the SPY and stockpiled for waste characterization before disposal.

One soil stockpile sample was collected and analyzed in accordance with the waste characterization plan described in Section 2.8.1. Analytical results characterized the stockpiled soil as nonhazardous waste. Republic Services approved disposal under Profile 51242315251, along with other soil from BCW. Approximately 100 tons of nonhazardous waste were transported to La Paz Landfill in Parker, Arizona for disposal (Table 2-1).

Appendix H contains the Waste Tracking Log, which summarizes the waste transportation and disposal details, and the final signed waste manifests and disposal facility weight tickets.

3.3.6 Backfill and Site Stabilization

Due to the location of SWMU1 TAA3 along a steep, inaccessible slope, backfill of the shallow TAA excavation was not conducted.

Appendix I shows site conditions upon completion of the Soil NTCRA activities in January 2024.

3.4 AOC 1 – Area Around Former Percolation Bed – TAA 1

This section describes the Soil NTCRA activities for AOC1 TAA1.

3.4.1 Target Action Area Background

AOC1 TAA1 is located northwest of TCS on Caltrans ROW. The TAA is immediately south of the culverts beneath I-40 (Figure 3-4). The area is flat, sparsely vegetated, and covered with depositional sands and gravels from BCW. Steeply sloped native hillsides are present to the east and west. Appendix I provides a pre-removal site photograph.

From about 1951 to approximately 1971, TCS discharged wastewater from the cooling towers to the percolation bed in BCW and allowed it to percolate into the ground or evaporate. Stormwater flow through BCW or intentional releases are suspected to have transported wastes to AOC1 TAA1. Historical sample

results indicated D/F-contaminated soil was present within the TAA, with the greatest contaminant concentrations located from 2 to 3 feet bgs. The detailed understanding of the nature and extent of contamination at the TAA is available in the RFI/RI Report Volume 3 (Jacobs 2024a).

3.4.2 Removal Summary

Removal activities at AOC1 TAA1 began in February 2023 following access improvements to the access route through BCW. The initial excavation removed soil to the lateral extent of the TAA boundaries and to a depth of 5 feet bgs before the collection of confirmation soil samples. Results of the initial round of confirmation soil sampling did not indicate contaminant concentrations exceeding the numerical RAG; however, these results only included D/F TEQ results detected using EPA Method SW4025.

In mid-February 2023, DOI approved backfill of the excavation based on the available data, and the excavation was backfilled. D/F TEQ results detected using EPA Method SW8290 were received several weeks later. A review of the data showed that the D/F TEQ concentration in the confirmation floor sample AOC1TAA1-CF1-5 exceeded the numerical RAG, which differed from the SW4025 results. DOI was notified and approved step-out excavations to remove contaminated soil present in the floor of the TAA at 5 feet bgs.

Re-excavation of the backfilled material and additional step-out excavations began in September 2023, following bat roosting season. During re-excavation, multiple step-out excavations were required to remove soil contaminated with D/F to less than the numerical RAGs. The I-40 culverts immediately to the north of the TAA prevented further excavation in that direction where D/F contamination remained (Section 3.4.3.1).

The lack of collocated metals contamination, discolored soil, or debris required field crews to rely solely on D/F TEQ laboratory analysis to support additional step-out excavations. Step-out excavations were delayed while waiting for D/F TEQ laboratory results. Additionally, the presence of a mature Tamarisk tree immediately to the east of the TAA required additional DOI approval to conduct pothole excavation east of the tree to determine whether contamination requiring removal was present beneath the tree (Appendix I). Analytical results from samples to the west and east of the tree indicated removal of soil beneath the tree was not necessary.

An RFI/RI Report Volume 3 (Jacobs 2024a) data gap for vertical extent of PCBs was identified within AOC1 TAA1. The deepest sample collected from RFI/RI sample location AOC1-T5D slightly exceeded the Interim Screening Level for total PCBs. Total PCBs were detected at 248 micrograms per kilogram ($\mu\text{g}/\text{kg}$), compared to the Interim Screening Level of 240 $\mu\text{g}/\text{kg}$. The re-excavation of the TAA allowed for collection of a soil sample to fill this data gap.

On September 20, 2023, sample AOC1_T5D-5.5-6 was collected from the base of the excavation and submitted for PCB analysis. One PCB mixture, Aroclor 1254, was detected at 45 $\mu\text{g}/\text{kg}$. Total PCBs are calculated at 49 $\mu\text{g}/\text{kg}$. Appendix E provides the analytical laboratory report.

Excavation activities were completed in October 2023 and included the removal of approximately 250 yd^3 of contaminated soil; excavation volumes listed in Table 2-1 include the re-excavation of approximately 65 yd^3 of backfilled soil in the original excavation. Figure 3-4 shows the full extent of the AOC1 TAA1 excavation.

3.4.3 Contamination Summary

Contamination at AOC1 TAA1 and approved step-out excavations was not visually evident; for example, discolored soil was not observed, nor were there significant detections of metals during XRF screening.

Historical data and available NTCRA data indicated that D/F contamination was present at concentrations exceeding the numerical RAGs (Table 3-4). D/F contamination exceeding the numerical RAGs was only encountered in samples collected at 5 feet bgs. Metals were only detected at concentrations less than the numerical RAG. The contaminated soil was removed to the extent practical during the Soil NTCRA.

3.4.3.1 Remaining Contamination

D/F-impacted soil exceeding the numerical RAG remains in the excavation sidewall to the north of the TAA, at the base of the I-40 culverts. The remaining contamination is represented by confirmation soil sample AOC1TAA1-CW3b-5 (Figure 3-4). Although the D/F TEQ concentration of 280 ng/kg in sample AOC1TAA1-CW3b-5 exceeds the selected RAG of 190 ng/kg based on the RBRG for desert shrew, it is less than the alternate RBRG calculated for this receptor of 360 ng/kg (Arcadis 2019). Removal of the contaminated soil was not conducted due to the potential of undermining the I-40 culverts.

3.4.4 Confirmation Soil Sampling Results

Confirmation soil sidewall and floor samples were collected and analyzed in accordance with the Soil NTCRA Work Plan. At AOC1 TAA1, the initial confirmation floor sample was collected at a depth of approximately 5 feet bgs, as historical data indicated the greatest contaminant concentrations were at 2 to 3 feet bgs. Therefore, initial sidewall samples were collected from approximately 2 to 3 feet bgs, also where finer-grained soil was present.

Following review of EPA Method SW8290 results, it was apparent that contamination remained at depths of 5 to 6 feet bgs. Additional excavation removed contaminated soil from 5 to 7 feet bgs. The subsequent confirmation floor sample was collected at 7 feet bgs. Resampling of all sidewalls was conducted at 5 feet bgs, where contamination exceeding the numerical RAGs was previously detected. Figure 3-4 shows the confirmation soil sample locations. Table 3-4 summarizes the confirmation soil sample results.

Eighteen confirmation soil samples were collected from AOC1 TAA1. Confirmation soil samples were collected at the extent of the original TAA boundary and initially proposed excavation depth, as well as at step-out locations where numerical RAGs were exceeded. Locations with RAG exceedances and subsequent removal actions, where feasible or warranted, were as follows:

- At AOC1TAA1-CF1-5, soil from the initial excavation floor contained D/F TEQ at a concentration of 420 ng/kg. Re-analysis of an archived sample detected a similar concentration of 450 ng/kg. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, AOC1TAA1-CF1a-7, were less than the numerical RAG.
- At AOC1TAA1-CW1a-5, soil on the southern side of the step-out excavation contained D/F TEQ at a concentration of 210 ng/kg. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, AOC1TAA1-CW1b-5, were less than the numerical RAG.
- At AOC1TAA1-CW2a-5, soil on the eastern side of the step-out excavation contained D/F TEQ at a concentration of 200 ng/kg. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, AOC1TAA1-CW2b-5, were less than the numerical RAG.
- At AOC1TAA1-CW3a-5, soil on the northern side of the step-out excavation contained D/F TEQ at a concentration of 2,700 ng/kg. Step-out excavations were conducted to remove the contaminated soil. The subsequent confirmation sidewall sample, AOC1TAA1-CW3b-5, also contained D/F TEQ at concentrations of 280 ng/kg, exceeding the numerical RAG; however, additional step-out excavation to the north was not conducted due to the concern of undermining the I-40 culverts.

3.4.5 Waste Management Summary

Excavated soil from AOC1 TAA1 was hauled directly to the SPY and stockpiled for mechanical separation before waste characterization and disposal. An estimated 330 yd³ of soil was screened, generating approximately 130 yd³ of 3/4-inch-plus sized rock and gravel and approximately 200 yd³ of waste fines.

Two samples were collected from stockpiles of the post-screening waste fines and analyzed in accordance with the waste characterization plan described in Section 2.8.1. Analytical results characterized the stockpiled soil as nonhazardous waste. Republic Services approved the waste for disposal under Profile 51242315251, along with other soil from BCW. Approximately 300 tons of nonhazardous waste were transported to La Paz Landfill in Parker, Arizona for disposal (Table 2-1).

Appendix H contains the Waste Tracking Log, which summarizes the waste transportation and disposal details, and the final signed waste manifests and disposal facility weight tickets.

3.4.6 Backfill and Site Stabilization

The initial excavation was backfilled in February 2023, based on the available confirmation soil sample data, which indicated contaminant concentrations were less than numerical RAGs. However, removal of the backfilled material and additional soil from step-out excavations was required and subsequently conducted in September 2023.

Backfill and site stabilization of the step-out excavations was conducted in November 2023 after receipt of EPA Method SW8290 results indicating D/F TEQ concentrations were less than the numerical RAG, with the exception of the northern sidewall. The excavation was backfilled with AB material from Campbell's Quarry in Lake Havasu City, Arizona. Compaction testing of the AB material was conducted to confirm placement of the soil to 90% of the maximum dry density.

Appendix I shows site conditions upon completion of the Soil NTCRA activities in November 2023.

3.5 AOC 1 – Area Around Former Percolation Bed – TAA 2

This section describes the Soil NTCRA activities for AOC1 TAA 2.

3.5.1 Target Action Area Background

AOC1 TAA2 is located in BCW west of TCS on PG&E property (Figure 3-5). The TAA surrounds former well TCS-4 and its associated contamination. The area is flat, sparsely vegetated, and covered with depositional sands and gravels from BCW. Appendix I provides a pre-removal site photograph. Underground gas pipelines and aboveground valves are present in the area but outside of the TAA boundaries.

TCS-4 has been identified as a source of contamination due to historical TCS wastewater injection. Between 2013 and 2016, the well head was investigated and uncovered to allow for proper abandonment. During the abandonment, a limited amount of discolored soil was removed and disposed. The pipe formerly connected to TCS-4 remained in place before the NTCRA and was known to be wrapped in mastic that contained asbestos and D/F (CH2M 2015).

Historical data indicated metals- and D/F-contaminated soil was present within the TAA, with the greatest contaminant concentrations located between 5 and 10 feet bgs. The detailed understanding of the nature and extent of contamination at the TAA is available in the RFI/RI Report Volume 3 (Jacobs 2024a).

3.5.2 Removal Summary

Removal activities at AOC1 TAA2 began in September 2023. The initial excavation removed contaminated soil to the lateral extent of the TAA boundaries and to a depth of 10 feet bgs. The abandoned TCS-4 wellhead was uncovered in the center of the TAA but left intact (Appendix I). The associated TCS-4 pipeline was encountered to the south of the wellhead at approximately 4 to 5 feet bgs. Portions of the pipe were bare steel, while other portions within approximately 40 feet of TCS-4 were wrapped in asbestos-containing mastic. The TCS-4 pipeline was removed as it was encountered.

Greenish-gray soil was observed surrounding the wellhead and pipeline, and throughout the TAA from approximately 5 to 7 feet bgs. Contaminated soil removal extended south toward the SWMU1 TAA1 excavation (Figure 3-5).

Results of the initial round of confirmation soil sampling indicated chromium concentrations exceeding the numerical RAG were present at 10 feet bgs in the floor of the excavation from samples AOC1TAA2-CF1-10 and AOC1TAA2-CF2-10 and along the southern sidewall and southeastern corner where greenish-gray soil was observed from approximately 5 to 7 feet bgs in samples AOC1TAA2-CW4-5 and AOC1TAA2-CW5-7. DOI approved step-out excavations to remove the contamination. Excavation continued to the south until XRF results decreased to less than the threshold value, discolored soil was no longer observed, and confirmation soil sample results were less than the numerical RAG.

Step-out excavations to the southeast encroached upon the active Transwestern gas pipeline (Figure 3-5). Due to the critical nature of the pipeline, excavation was not conducted within 4 feet of the pipeline. Soils observed in the eastern extent of the excavation had XRF results exceeding the threshold value for chromium and greenish-gray discoloration at approximately 5 to 7 feet bgs. Confirmation soil sample results indicated chromium concentrations exceeding the numerical RAG in sample AOC1TAA2-CW6-6 in soil beneath the gas pipeline. Based on the data and field observations, it was expected that contamination extended to the east of the pipeline.

DOI approved a pothole step-out on the eastern side of the pipeline to determine whether additional excavation was warranted in that direction. Discolored soil, XRF results, and analytical data confirmed that contaminants exceeding the numerical RAG were present on the eastern side of the pipe and warranted removal.

The TAA excavation on the western side of the pipeline was backfilled to provide support before continuing step-out excavation to the east. Once the TAA was backfilled, excavation continued to the east, removing the greenish-gray contaminated soil. Excavation to the north, south, and east removed contamination to less than the numerical RAG; however, soil exceeding the numerical RAG in sample AOC1TAA2-CW10-4 could not be removed to the northeast due to the steep hillside overlying the soil.

Excavation activities were completed in December 2023 and included the removal of approximately 2,070 yd³ of contaminated soil. Figure 3-5 shows the full extent of the AOC1 TAA2 excavation.

3.5.3 Contamination Summary

Contamination at AOC1 TAA2 and approved step-out excavations was primarily encountered in a lens of greenish-gray soil from approximately 5 to 7 feet bgs. The greenish-gray soil contained chromium and D/F TEQ (only at one sample location) at concentrations exceeding the numerical RAGs (Table 3-5). Other contaminants were not detected at concentrations exceeding the numerical RAGs. The greenish-gray soil and soil with contaminants exceeding the numerical RAGs were removed during the Soil NTCRA, except in the floor of the excavation below 10 feet bgs, beneath the Transwestern gas pipeline, and in the northeastern corner of the step-out excavation.

While contamination was most evident in the greenish-gray soil between 5 and 7 feet bgs, contaminants exceeding the numerical RAGs detected with laboratory analysis and XRF screening were observed in soil, including orange discoloration, through the full depth of the excavation from the shallow surface to 10 feet bgs (Appendix I). Historical data indicate contaminants exceeding the numerical RAGs remain at depths beyond 10 feet bgs; however, removal below 10 feet was not conducted during the Soil NTCRA, as that is below the depth defined by the RAO.

Greenish-gray soil with chromium concentrations exceeding the numerical RAG was observed at the TCS-4 well head and along the associated TCS-4 pipe trench. The TCS-4 pipeline itself was wrapped with asbestos-containing mastic and residue within the pipe was analyzed for waste characterization and contained a chromium concentration of 11,000 mg/kg. Green discolored soil and black discolored soil were observed in the pipe trench. The discolored soil and steel pipe were removed and properly disposed.

3.5.3.1 Remaining Contamination

Chromium-impacted soil exceeding the numerical RAGs remains in the floor of the excavation at a depth of 10 to 10.5 feet bgs and is represented by confirmation soil samples AOC1TAA2-CF1-10 and AOC1TAA2-CF2-10 (Figure 3-5 and Table 3-5). Total chromium concentrations in these two samples were 330 mg/kg and 340 mg/kg, respectively, exceeding the RAG of 145 mg/kg.

Removal of the contaminated material from deeper than 10 feet bgs was not conducted because the objectives of the Soil NTCRA were to remove contaminants exceeding the RAGs, which are only applicable within 10 feet of the ground surface, and the residual contaminated material is below the depth human and ecological receptors at the site could reasonably be exposed to (DOI 2021). Additionally, the residual concentrations in the excavation floor are unlikely to be associated with unacceptable risk to human or ecological receptors based on the finding of no unacceptable risk for potential exposures at this depth interval in the 2019 Soil HHERA (before Soil NTCRA removal actions).

Chromium-impacted soil exceeding the numerical RAG remains in the excavation beneath the Transwestern gas pipeline. The remaining contamination is represented by confirmation soil sample AOC1TAA2-CW6-6 (3,300 mg/kg) to the west of the pipeline and AOC1TAA2-CW6a-6 (190 mg/kg) to the east (Figure 3-5). Removal of the contaminated soil was not conducted due to the concern of undermining the active natural gas pipeline.

Chromium- and D/F-impacted soil exceeding the numerical RAGs remains beneath the steep, native, rocky outcrop in the northeastern corner of the TAA step-out excavation. The remaining contamination is represented by confirmation sample AOC1TAA2-CW10-4 (Figure 3-5). Chromium concentration in this sample was 240 mg/kg, and the D/F TEQ concentration was 320 ng/kg. Although the D/F TEQ concentration exceeds the selected RAG of 190 ng/kg based on the RBRG for desert shrew, it is less than the alternate RBRG calculated for this receptor of 360 ng/kg (Arcadis 2019). Removal of the contaminated material could not be completed safely due to the location beneath the steep, rocky outcrop.

3.5.4 Confirmation Soil Sampling Results

Confirmation soil samples were collected from the excavation sidewalls and floor and analyzed in accordance with the Soil NTCRA Work Plan. At AOC1 TAA2, confirmation floor samples were generally collected at 10 feet bgs, the full extent of the excavation depth. Sidewall samples were generally collected from approximately 3 to 8 feet, where the greatest contaminant impacts were encountered. Figure 3-5 shows the confirmation soil sample locations. Table 3-5 summarizes the confirmation soil sample results.

Twenty-four confirmation soil samples were collected from AOC1 TAA2. Confirmation soil samples were collected at the original TAA boundary and initially proposed excavation depth as well as at step-out locations where numerical RAGs were exceeded. Locations with RAG exceedances and subsequent removal actions, where feasible or warranted, are discussed as follows:

- At AOC1TAA2-CF1-10, soil from the excavation floor contains chromium at a concentration of 330 mg/kg. Because the sample depth was already at the maximum RAO depth of 10 feet bgs, no further excavation was conducted.
- At AOC1TAA2-CF2-10, soil from the excavation floor contains chromium at a concentration of 340 mg/kg. Because the sample depth was already at the maximum RAO depth of 10 feet bgs, no further excavation was conducted.
- At AOC1TAA2-CW4-5, soil on the southern side of the excavation contained chromium at a concentration of 940 mg/kg. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, AOC1TAA2-CW7-8, were less than the numerical RAG.
- At AOC1TAA2-CW5-7, soil on the southeastern side of the excavation contained chromium at a concentration of 340 mg/kg. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, AOC1TAA2-CW5a-5, were less than the numerical RAG.
- At AOC1TAA2-CW5b-7, soil on the southeastern side of the Transwestern gas pipeline contained chromium at a concentration of 180 mg/kg. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, AOC1TAA2-CW5c-7, were less than the numerical RAG.
- At AOC1TAA2-CW6-6, soil from the excavation sidewall beneath the Transwestern gas pipeline on the western side contained chromium at a concentration of 3,300 mg/kg. The sample location represents soil beneath an active gas pipeline and was not removed.
- At AOC1TAA2-CW6a-6, soil from the excavation sidewall beneath the Transwestern gas pipeline on the eastern side contained chromium at a concentration of 190 mg/kg. The sample location represents soil beneath an active gas pipeline and was not removed. Additional step-out excavations were conducted to the east, and the subsequent confirmation sidewall sample, AOC1TAA2-CW6c-7, had a chromium concentration less than the numerical RAG.
- At AOC1TAA2-CW10-4, soil from the sidewall on the northeastern extent of the excavation contained chromium at a concentration of 240 mg/kg and D/F TEQ at a concentration of 320 ng/kg. The sample location represents soil beneath the steep hillside and could not be removed.

3.5.5 Waste Management Summary

Excavated soil from AOC1 TAA2 was hauled directly to the SPY and stockpiled for mechanical separation before waste characterization and disposal. An estimated 2,070 yd³ of soil was screened, generating approximately 830 yd³ of 3/4-inch-plus rock and gravel and approximately 1,240 yd³ of waste fines.

Four samples were collected from stockpiles of the post-screening waste fines and analyzed in accordance with the waste characterization plan described in Section 2.8.1. Analytical sample results characterized the stockpiled soil as nonhazardous waste. Republic Services approved the waste for disposal under Profile 51242315251, along with other soil from BCW. Approximately 1,900 tons of nonhazardous waste were transported to La Paz Landfill in Parker, Arizona for disposal (Table 2-2). Analytical results from the residue within the TCS-4 pipeline removed from the excavation contained a chromium concentration of 11,000 mg/kg and the pipe was characterized as RCRA hazardous waste. US Ecology approved the waste

for disposal under Profile 70337497. Approximately 2 tons of RCRA hazardous waste were transported to US Ecology Landfill in Beatty, Nevada for disposal (Table 2-2).

Appendix H contains the Waste Tracking Log, which summarizes the waste transportation and disposal details, and the final signed waste manifests and disposal facility weight tickets.

3.5.6 Backfill and Site Stabilization

Backfill and site stabilization of AOC1 TAA2 was conducted in December 2023 after DOI approval. The backfill material primarily consisted of 3/4-inch-plus material (previously screened rock) resulting from the screening of BCW soil excavated during the Soil NTCRA to within 2 to 3 feet of ground surface. Well-graded AB material from Campbell's Quarry in Lake Havasu City, Arizona was placed in the top 2 to 3 feet.

In areas where the BCW access road was removed and within 10 feet of the Transwestern gas pipeline, AB material was used from the excavation bottom to ground surface. Compaction testing of the AB material was conducted to confirm placement of the soil to 90% of the maximum dry density.

Appendix I shows site conditions upon completion of the Soil NTCRA activities in December 2023.

3.6 AOC 1 – Area Around Former Percolation Bed – TAA 3

This section describes the Soil NTCRA activities for AOC1 TAA3.

3.6.1 Target Action Area Background

AOC1 TAA3 is located in BCW west of TCS on PG&E property (Figure 3-6). The excavation area gently slopes down to the west, is sparsely vegetated, and covered with sands and gravels. Fill material from construction of TCS and adjacent TCS access road are also present in the TAA. Appendix I provides a pre-removal site photograph.

From about 1951 to approximately 1971, TCS discharged wastewater from the cooling towers to the percolation bed in BCW and allowed it to percolate into the ground or evaporate. Contamination at the TAA is likely the result of the distribution of soil and sediments following dismantling of the percolation bed.

Historical data indicated metals and D/F TEQ contaminated soil was present within the TAA, with the greatest contaminant concentrations within 3 feet of the surface. The detailed understanding of the nature and extent of contamination at the TAA is available in the RFI/RI Report Volume 3 (Jacobs 2024a).

3.6.2 Removal Summary

Removal activities at AOC1 TAA3 began in January 2023. The initial excavation removed contaminated soil to the lateral extent of the TAA boundaries and to a depth of 4 feet based on XRF results and observation of discolored soil. Gray, discolored soil was observed in the top 1 foot on the northern side of the excavation and to approximately 3 feet on the southern side of the excavation (Appendix I). XRF screening of the gray soil indicated chromium concentrations exceeded numerical RAG.

Results of the initial round of confirmation soil sampling indicated D/F TEQ, chromium, and Cr(VI) concentrations exceeding the numerical RAG were present in the sidewalls of the excavation, represented in samples AOC1TAA3-CW1-3, AOC1TAA3-CW3-3, and AOC1TAA3-CW5-1. During evaluation of the data and observations in the field, it became evident that the concurrent excavations at SWMU1 TAA1 would encompass AOC1 TAA3 (Figure 3-6). Following discussions with DOI, it was determined that further

excavations in the area surrounding AOC1 TAA3 would be conducted as part of SWMU1 TAA1 step-out excavations. While no step-out excavations were conducted at AOC1 TAA3, the soil exceeding numerical RAGs was removed during step-out excavations at SWMU1 TAA1.

Excavation activities were completed in January 2023 and included the removal of approximately 128 yd³ of contaminated soil. Figure 3-6 shows the full extent of the AOC1 TAA3 excavation.

3.6.3 Contamination Summary

Contamination at AOC1 TAA3 was encountered from the surface to approximately 3 feet bgs. Gray, discolored soil was observed in the top 1 foot on the northern side of the excavation and to approximately 3 feet on the southern side of the excavation, likely due to the topographic change across the TAA. The gray soil contained D/F TEQ, chromium, and Cr(VI) at concentrations exceeding the numerical RAGs (Table 3-6). Other contaminants were not detected at concentrations exceeding the numerical RAGs. The gray soil was removed during the Soil NTCRA. Contaminated soil beyond the TAA boundary was removed as part of SWMU1 TAA1.

3.6.4 Confirmation Soil Sampling Results

Confirmation soil samples were collected from the excavation sidewalls and floor and analyzed in accordance with the Soil NTCRA Work Plan. At AOC1 TAA3, the one confirmation floor sample was collected at 4 feet bgs, the extent of the initial excavation. Sidewall samples were collected from approximately 1 to 4 feet bgs based on the observation of discolored soil and XRF results. Figure 3-6 shows the confirmation soil sample locations. Table 3-6 summarizes confirmation soil sample results.

Six confirmation soil samples were collected from AOC1 TAA3. Confirmation soil sample results were collected from the original TAA boundary and initially proposed excavation depth as well as at step-out locations where numerical RAGs were exceeded. Locations with RAG exceedances and subsequent removal actions, where feasible or warranted, are discussed as follows:

- At AOC1TAA3-CW1-3, soil from the northern sidewall contained D/F TEQ detected by EPA Method SW4025 at an estimated concentration of greater than 228 ng/kg. The sample was not analyzed for D/F by EPA Method SW8290. The soil was removed, and subsequent SWMU1 TAA1 confirmation samples were less than the numerical RAG.
- At AOC1TAA3-CW3-3, soil from the southern sidewall contained chromium at a concentration of 330 mg/kg. The soil was removed, and subsequent SWMU1 TAA1 confirmation samples were less than the numerical RAG.
- At AOC1TAA3-CW5-1, soil from the northern sidewall contained chromium at a concentration of 440 mg/kg and Cr(VI) concentrations of 7.9 mg/kg. The soil was removed, and subsequent SWMU1 TAA1 confirmation samples were less than the numerical RAG.

3.6.5 Waste Management Summary

Excavated soil from AOC1 TAA3 was hauled directly to the SPY and stockpiled for mechanical separation before waste characterization and disposal. An estimated 128 yd³ of soil was screened, generating approximately 50 yd³ of 3/4-inch-plus rock and gravel and approximately 80 yd³ of waste fines.

One sample was collected from a stockpile of the post-screening waste fines and analyzed in accordance with the waste characterization plan described in Section 2.8.1. Analytical sample results characterized the stockpiled soil as nonhazardous waste. Republic Services approved the waste for disposal under

Profile 51242315251, along with other soil from BCW. Approximately 120 tons of nonhazardous waste were transported to La Paz Landfill in Parker, Arizona for disposal (Table 2-1).

Appendix H contains the Waste Tracking Log, which summarizes the waste transportation and disposal details, and the final signed waste manifests and disposal facility weight tickets.

3.6.6 Backfill and Site Stabilization

Backfill and site stabilization of AOC1 TAA3 was conducted in February 2023 as part of the redesign and repair of the TCS access road. The area was backfilled by a non-Soil NTCRA Contractor with the use of well-graded AB material from Campbell's Quarry in Lake Havasu City, Arizona. Section 3.1.6 provides additional details about backfill operations conducted as part of SWMU1 TAA1.

Appendix I shows site conditions upon completion of the Soil NTCRA activities in February 2023.

3.7 AOC 9 – Southeast Fence Line – TAA 1

This section describes the Soil NTCRA activities for AOC9 TAA1.

3.7.1 Target Action Area Background

AOC9 TAA1 is located south of the TCS visitor parking area and immediately east of the facility fence line on PG&E property (Figure 3-7). The TAA is located on a steep slope between the TCS fence line and B-Line Road. Surface drainage from AOC9 TAA1 and the surrounding area flows to a stormwater ditch along B-Line Road. The stormwater ditch flows into East Ravine, but due to natural and constructed berms, surface flow within the ravine does not typically reach the Colorado River. Appendix I provides a pre-removal site photograph.

AOC9 TAA1 received discharges from a stormwater drainpipe and surface disposal of debris. Debris, including concrete, metal, trash, and tires, were visible on the surface at the time of the Soil NTCRA. A small amount of discolored surface soil, 1.5 yd³, was removed from the area in 2000; but site conditions, including the steepness and stability of the slope, limited the extent of excavation at that time (CH2M 2007).

Historical soil sample results indicated metals- and D/F-contaminated soil was present within the TAA, with the greatest contaminant concentrations within 3 feet of the surface. The detailed understanding of the nature and extent of contamination at the TAA is available in the RFI/RI Report Volume 3 (Jacobs 2024a).

3.7.2 Removal Summary

Removal activities at AOC9 TAA1 began in July 2023. Access to the TAA was from the base of the slope along the B-Line Road. The initial excavation removed soil to the lateral extent of the TAA and to a depth of 3 feet bgs before the collection of confirmation soil samples. Results of the initial round of confirmation soil sampling indicated D/F TEQ and chromium at concentrations exceeding the numerical RAG were present in the sidewalls of the excavation from samples AOC9TAA1-CW2-2 and AOC9TAA1-CW4-2. DOI approved step-out excavations to remove contaminated soil detected at the extent of the TAA boundary.

Excavation activities were completed in September 2023. Figure 3-7 shows the full extent of the AOC9 TAA1 excavation.

3.7.3 Contamination Summary

Contamination at AOC9 TAA1 consisted of orange and white discolored soils at depths up to 3 feet bgs throughout the TAA. The discolored soil contained D/F TEQ at concentrations exceeding the numerical RAGs (Table 3-7). The contaminated soil was removed during the Soil NTCRA. Debris, not associated with contamination, was also observed throughout the TAA and removed when encountered (Appendix I).

3.7.4 Confirmation Soil Sampling Results

Confirmation soil sidewall and floor samples were collected and analyzed in accordance with the Soil NTCRA Work Plan. At AOC9 TAA1, one confirmation floor sample was collected at depth of approximately 3 feet bgs, the extent of the excavation. Sidewall samples were collected from approximately 1 to 2 feet deep; the approximate midpoint of the excavation sidewall. Figure 3-7 shows the confirmation soil sample locations. Table 3-7 summarizes confirmation soil sample results.

Seven confirmation soil samples were collected from AOC9 TAA1. Confirmation soil samples were collected at the original TAA boundary and initially proposed excavation depth as well as at step-out locations. The location of these step-out excavations and the detected results are as follows:

- At AOC9TAA1-CW2-2, soil on the northwestern edge of the TAA (top of slope) contained D/F TEQ at a concentration of 170 ng/kg. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, AOC9TAA1-CW2a-1, were less than the numerical RAG for both 0 to 2 feet bgs samples and 2 to 10 feet bgs samples.
- At AOC9TAA1-CW4-2, soil on the southeastern edge of the TAA (bottom of slope) contained D/F TEQ at a concentration of 121 ng/kg detected by EPA Method SW4025 and Cr(VI) at a concentration of 14 mg/kg. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, AOC9TAA1-CW4a-1, were less than the numerical RAG for both 0 to 2 feet bgs samples and 2 to 10 feet bgs samples.

3.7.5 Waste Management Summary

Excavated soil from AOC9 TAA1 was hauled directly to the SPY and stockpiled for waste characterization before disposal.

Two soil stockpile samples were collected and analyzed in accordance with the waste characterization plan described in Section 2.8.1. Analytical results characterized the stockpiled soil as nonhazardous waste. Republic Services approved the waste for disposal under Profile 51242215499, along with other soil from East Ravine. Approximately 110 tons of nonhazardous waste were transported to La Paz Landfill in Parker, Arizona for disposal (Table 2-1).

Appendix H contains the Waste Tracking Log, which summarizes the waste transportation and disposal details, and the final signed waste manifests and disposal facility weight tickets.

3.7.6 Backfill and Site Stabilization

The postconstruction backfill plan noted in Section 3.1.7 of the Soil NTCRA Work Plan stated:

"Backfill of the TAA excavation will be completed with well-graded soil to within approximately 1 to 2 feet of the existing site grade. The remaining excavation surface will be backfilled with riprap or similar material to provide erosion control."

However, on October 3, 2023, a Slope Stabilization Plan for both AOC9 TAA1 and AOC10 TAA1 was submitted to DOI to clarify the proposed backfill and site stabilization approach after consultation with a Jacobs engineering geologist (Appendix A). The Slope Stabilization Plan concluded that due to the steep, dry, sandy, unconsolidated nature of the hillsides, the placement of well-graded soil before the placement of riprap would be impractical and would do little to improve erosion control. Therefore, riprap alone was proposed to backfill the steeply sloped portions of the TAAs.

On October 10, 2023, DOI approved backfill of AOC9 TAA1 in accordance with the October 3, 2023, Slope Stabilization Plan. The AOC9 TAA1 excavation was backfilled as follows, based on recommendations provided in Chapter 870, Bank Protection – Erosion Control, of the *Highway Design Manual* (Caltrans 2022):

- 1) A geotextile fabric was placed on the excavation bottom before the placement of riprap.
- 2) Large boulders were placed at the toe of the slope and keyed into the existing soil.
- 3) Riprap, specified as McCrossan quarry 4-8 inch "Aztec rock," sourced from Kingman, Arizona was mounded upslope from the larger boulders, which provided support for riprap placed on the slope above.
- 4) An approximately 18-inch-thick layer of riprap was placed along the slope.

Appendix I shows site conditions upon completion of the Soil NTCRA activities in November 2023.

3.8 AOC 10 – East Ravine – TAA 1

This section describes the Soil NTCRA activities for AOC10 TAA1.

3.8.1 Target Action Area Background

AOC10 TAA1 is located immediately southeast of the TCS visitor parking area on PG&E property (Figure 3-8). The TAA is located on a steep slope between the TCS fence line and East Ravine. The ravine runs eastward toward the Colorado River, but due to natural and constructed berms, surface flow within the ravine does not typically reach the Colorado River. Appendix I provides a pre-removal site photograph.

AOC10 TAA1 received historical waste discharge from TCS, including discharge from stormwater drainpipes, surface disposal of debris onto the slope, and incidental overflows of wastewater from the former trench drain along the TCS access road. Yellow and white discolored soil was present on the surface of the TAA. Historical chromium and Cr(VI) concentration data for the yellow discolored soil indicated the soil had the potential to be hazardous waste.

Historical soil sample results indicated metals- and D/F-contaminated soil was present within the TAA, with the greatest contaminant concentrations within 2 to 3 feet of the surface. The detailed understanding of the nature and extent of contamination at the TAA is available in the RFI/RI Report Volume 3 (Jacobs 2024a).

3.8.2 Removal Summary

Removal activities at AOC10 TAA1 began in July 2023 with the dismantling of the TCS security fence along the western edge of the TAA to allow for access to the top of the slope. A temporary fence was installed to allow for excavation and loading of haul trucks from the TCS visitor parking lot, while TCS remained secured. Vegetation along the fence line was removed from the western TAA boundary (Appendix I). In-place utilities that included a shallow water line and electrical conduit along the top of the

slope were protected during removal activities. A stormwater catch basin adjacent to the visitor parking area was also protected (Figure 3-8).

Excavation of contaminated soil within the TAA began from the visitor parking area, immediately east of the TCS fence line. Excavation continued east and south, removing contaminated and discolored soil within the TAA boundaries to a depth of 3 feet bgs. Excavation along the eastern side of the TAA was conducted from the base of the slope. Access to the base of the slope was from the B-Line Road that parallels NTH to the south (Figure 3-8).

A temporary soil ramp and staging pad were installed immediately to the east of the TAA by adding clean onsite material and AB material imported from Campbell's Quarry near Lake Havasu City, Arizona. Removal activities from the base of the slope were completed using a combination of excavator sizes, including a long-reach excavator. DOI approved step-out excavations to remove contaminated soil observed beyond the extent of the TAA boundary. Figure 3-8 shows the full extent of the AOC10 TAA1 excavation.

3.8.3 Contamination Summary

Contamination at AOC10 TAA1 and approved step-out excavations was primarily encountered in discolored shallow soil to about 3 feet bgs. White, chunky material with D/F TEQ concentrations exceeding the numerical RAG was encountered on the surface in the northern portion of the TAA, represented by sample AOC10TAA1-CF2-0. A confirmation soil sample, AOC10TAA1-CW6a-1, from the northwestern extent of the TAA indicates the contaminated material extends under the TCS visitor parking lot.

Yellow discolored soil was encountered on the surface to approximately 2.5 feet bgs in the central portion of the TAA. Analytical data from sample AOC10TAA1-CW3-0.5 indicated the yellow material contained chromium and Cr(VI) at concentrations exceeding the numerical RAGs and at concentrations that required disposal as RCRA and non-RCRA hazardous waste.

Orange, green, and white discolored soil was encountered in the southeastern corner of the TAA and extending into an eroded stormwater channel toward East Ravine. The orange, green, and white discolored soil varied in depth from 1 to 4 feet bgs as the topography moved into the ravine. Analytical data from sample AOC10TAA1-CW13-1.5 indicate the orange, green, and white discolored soil contained chromium, Cr(VI), and D/F TEQ at concentrations exceeding the numerical RAGs.

The discolored soil encountered at AOC10 TAA1 was removed, except the soil in the southeastern corner of the TAA, beneath the B-Line Road.

3.8.3.1 Remaining Contamination

D/F-impacted soil exceeding the numerical RAG remains in the shallow soil west of the TAA beneath the TCS visitor parking lot. The remaining contamination is represented by confirmation soil sample AOC10TAA1-CW6a-1 at 1,700 ng/kg. Removal of the contaminated soil was not conducted, as the contamination was beyond the Soil NTCRA work area boundary (Figure 3-8).

Chromium-impacted soil exceeding the numerical RAG and discolored soil also remains in the southeastern corner of the TAA, represented by confirmation sidewall sample AOC10TAA1-CW16-3 at 160 mg/kg. Removal of the contaminated material at approximately 3 feet bgs was not conducted due to concerns of undermining an active high-voltage electrical line (Figure 3-8).

3.8.4 Confirmation Soil Sampling Results

Confirmation soil sidewall and floor samples were collected in accordance with the Soil NTCRA Work Plan. At AOC10 TAA1, confirmation floor samples were collected at depths of approximately 3 feet bgs, which was the depth of excavation across most of the TAA. Sidewall samples were collected from approximately 2 feet deep. Step-out excavation depths in the southeast increased to approximately 5 feet deep, and sidewall sample depth increased accordingly to approximately 3 feet. Figure 3-8 shows the confirmation soil sample locations. Table 3-8 summarizes confirmation soil sample results.

Forty confirmation soil samples were collected from AOC10 TAA1. Confirmation soil samples were collected at the original TAA boundary and initially proposed excavation depth as well as at step-out locations where numerical RAGs were exceeded. RAG exceedances and subsequent removal actions are discussed as follows:

- At AOC10TAA1-CF2-0, white material encountered on the ground surface in the northern portion of the TAA contained D/F TEQ at a concentration of 280 ng/kg. The initial excavation removed the white material from the surface and in the shallow subsurface. A subsequent confirmation soil sample, AOC10TAA1-CF2a-3, was less than the numerical RAG.
- At AOC10TAA1-CW3-0.5, yellow discolored soil on the eastern edge of the original TAA boundary contained chromium at concentrations of 2,200 mg/kg and Cr(VI) at 1,800 mg/kg. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, AOC10TAA1-CW9-1.5, were less than the numerical RAG.
- At AOC10TAA1-CW6-2, soil near the northwestern sidewall contained D/F TEQ at a concentration of 190 ng/kg. Additional soil was removed from the northwestern sidewall before the collection of a subsequent sample, AOC10TAA1-CW6a-1, just below the asphalt paving of the visitor parking lot and the western TAA boundary. The D/F TEQ concentration in this subsequent sidewall sample was 1,700 ng/kg. Step-out excavation to the west beyond the TAA boundary was not conducted in this location, as excavation was outside of the work area boundary.
- At AOC10TAA1-CW13-1.5, discolored soil on the southeastern corner contained chromium at concentrations of 150 mg/kg and Cr(VI) at 4.0 mg/kg. D/F TEQ was also detected at 230 ng/kg. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, AOC10TAA1-CW14-2.5, were less than the numerical RAG.
- At AOC10TAA1-CW16-3, discolored soil southeast of the TAA contained chromium at a concentration of 160 mg/kg. Step-out excavation was not conducted in this location, as further excavation was not feasible due to an active high-voltage electrical line present in the B-Line Road.

3.8.5 Waste Management Summary

Most excavated soil from AOC10 TAA1 was hauled directly to the SPY and stockpiled for waste characterization before disposal. Because historical soil sample results from the yellow discolored soil indicated chromium may be present at concentrations constituting hazardous waste, the yellow discolored soil was direct-loaded into nine roll-off bins and transported to TWB for waste characterization before disposal.

Nine roll-off bins and 11 soil stockpile samples were collected and analyzed in accordance with the waste characterization plan described in Section 2.8.1.

Analytical results characterized soil in one roll-off bin as non-RCRA hazardous waste due to chromium concentrations exceeding the STLC threshold. Republic Services approved the waste for disposal under

Profile 51242313985, and approximately 7.70 tons were transported to the La Paz Landfill in Parker, Arizona for disposal.

Analytical results characterized soil in another roll-off container as RCRA hazardous waste due to chromium concentrations exceeding the TCLP threshold. US Ecology approved the waste for disposal under Profile 70334546, and approximately 8.40 tons were transported to the US Ecology Landfill in Beatty, Nevada for disposal.

Analytical results characterized soil in the remaining roll-off containers and the soil stockpiled at the SPY as nonhazardous waste. The roll-off containers were transported to the SPY, where they were emptied and added to the AOC10 TAA1 soil stockpiles. Republic Services approved the waste for disposal under Profile 51242215499, and approximately 2,900 tons were transported to the La Paz Landfill in Parker, Arizona for disposal (Table 2-1).

Appendix H contains the Waste Tracking Log, which summarizes the waste transportation and disposal details, and the final signed waste manifests and disposal facility weight tickets.

3.8.6 Backfill and Site Stabilization

The postconstruction backfill plan noted in Section 3.1.8 of the Soil NTCRA Work Plan stated:

"Backfill of the TAA excavation will be completed with well-graded soil to within approximately 1 to 2 feet of the existing site grade. The remaining excavation surface will be backfilled with riprap or similar material to provide erosion control."

However, on October 3, 2023, a Slope Stabilization Plan for both AOC9 TAA1 and AOC10 TAA1 was submitted to DOI to clarify the proposed backfill and site stabilization approach after consultation with a Jacobs engineering geologist (Appendix A). The Slope Stabilization Plan concluded that due to the steep, dry, sandy, unconsolidated nature of the hillsides, the placement of well-graded soil before the placement of riprap would be impractical and would do little to improve erosion control. Therefore, riprap alone was proposed to backfill the steeply sloped portions of the TAAs.

On October 10, 2023, DOI approved backfill of AOC10 TAA1 in accordance with the October 3, 2023, Slope Stabilization Plan. The AOC10 TAA1 excavation was backfilled as follows, based on recommendations provided in Chapter 870, Bank Protection – Erosion Control of the *Highway Design Manual* (Caltrans 2022):

- 1) A geotextile fabric was placed on excavation bottom before the placement of riprap.
- 2) Large boulders were placed at the toe of the slope and keyed into the existing soil.
- 3) Riprap, specified as McCrossan quarry 4-8 inch "Aztec rock," sourced from Kingman, Arizona was placed upslope from the larger boulders, which provided support for riprap placed on the slope above.
- 4) An approximately 18-inch-thick layer of riprap was placed along the slope.
- 5) Flat areas of the TAAs requiring backfill, particularly the western edge of the TAA along the TCS fence line and the area southeast of TAA boundary, were backfilled with AB material from Campbell's Quarry in Lake Havasu City, Arizona. Compaction testing of the AB material was conducted to confirm placement to 90% of the maximum dry density.
- 6) Approximately 6 inches of riprap was placed on the flat area adjacent to the TCS visitor parking lot and western edge of the TAA.

Appendix I shows site conditions upon completion of the Soil NTCRA activities in December 2023.

3.9 AOC 10 – East Ravine – TAA 2

This section describes the Soil NTCRA activities for AOC10 TAA2.

3.9.1 Target Action Area Background

AOC10 TAA2 is located east of TCS in East Ravine. The TAA straddles PG&E property on the west and HNWR property on the east (Figure 3-9). Soils within the TAA are primarily depositional silts and sands from flows within East Ravine. A cluster of mesquite trees was present in the center of the original TAA. Appendix I provides a pre-removal site photograph.

A constructed berm built sometime between 1953 and 1961 was present on the eastern side of the TAA that resulted in TCS discharges and stormwater flows to be impounded. Greenish-gray material associated with elevated chromium contamination and a thin white powder layer were present within the TAA (CH2M 2009b).

Historical soil sample results indicate metals- and D/F-contaminated soil was present within the TAA, with the greatest contaminant concentrations within 3 feet of the surface. The detailed understanding of the nature and extent of contamination at the TAA is available in the RFI/RI Report Volume 3 (Jacobs 2024a).

3.9.2 Removal Summary

Soil NTCRA activities at AOC10 TAA2 began in August 2022. The initial excavation removed soil to the extent of the TAA boundary and to a depth of approximately 5 feet bgs. However, in an attempt to preserve the cluster of mesquite trees, the soil in the center of the TAA beneath the trees was not removed (Appendix I).

The historically identified 2-inch to 3-inch-thick white powder lens at approximately 2.5 feet bgs and greenish-gray soil up to 5 feet bgs were observed throughout the TAA. The white powder and discolored soil were present in the sidewalls of the excavation beneath the central mesquite cluster, beneath a small mesquite tree in the southeast of the TAA, and also in the southwest of the TAA leading upstream in the East Ravine. Excavations along the northeastern, northern, northwestern, and western edge of the TAA encountered the native conglomerate rock and were able to effectively remove visually impacted soil.

Rainstorm events on August 24 and September 11, 2022, flooded the TAA excavation and transported sediments into the area from further upstream. The excavation was subsequently dewatered on September 29, 2022. An additional rainstorm event on March 15, 2023, flooded the TAA excavation and was dewatered on April 6, 2023. Stormwater recovered from the TAA was placed in an open-top frac tank for evaporation (Section 2.8).

Confirmation sidewall soil samples were collected from 3 to 5 feet bgs, including samples of the white powder and greenish-gray soil remaining beneath the mesquite cluster. Results of the initial round of confirmation soil sampling indicated several locations exceeded the RAGs for the following parameters:

- Chromium
- Cr(VI)
- Copper
- Lead
- D/F TEQ

Confirmation floor samples collected at approximately 6 feet bgs indicated contaminants in soil in the floor of the excavation did not exceed numerical RAGs.

The white powder and contaminant concentrations exceeding the numerical RAGs warranted step-out excavations to the southwest, upstream in the East Ravine, and in the southeastern corner of the TAA. DOI approved the step-out excavation in these portions of the TAA. The potential removal of contaminated soil beneath the mesquite trees, and therefore the mesquite trees themselves, were temporarily delayed pending discussion with Tribal Representatives.

A summary of notifications provided in Appendix B and activities regarding step-out excavation, including status of the mesquite trees, is as follows:

- September 12, 2022 – A notification was sent to DTSC, the Tribes, and CWG regarding the need to excavate beyond the TAA boundaries and remove the mesquite trees to remove white powder material and discolored soil contaminated with metals and D/F TEQ exceeding the numerical RAGs.
- September 18, 2022 – DOI approved the step-out excavations to the southeast and southwest, as needed to remove the white powder material and discolored soil contaminated with metals and D/F TEQ exceeding the numerical RAGs. However, removal of the mesquite trees was not approved. Approved step-out excavations began in late September 2022.
- September through December 2022 – DOI and PG&E held discussions with the Tribes regarding the status of the mesquite trees. An evaluation of the available data and additional field observations helped determine the potential risks of leaving the contaminated soil beneath the trees.
- December 8, 2022 – DOI held a call with the Tribes and HNWR Representatives to discuss the status of the mesquite trees at both AOC10 TAA2 and AOC10 TAA4. The discussion concluded the mesquite trees in AOC10 TAA2 required removal to satisfy RAO 2 and RAO 3; the mesquite trees in AOC10 TAA4 were to remain. Preliminary sitewide averages of chromium and D/F based on the 95UCL of confirmation samples from AOC10 TAA4 indicated concentrations are likely acceptable and less than the RAGs. The pending updated HHERA will provide the post-NTCRA assessment of risk for AOC 10 - East Ravine.
- December 15, 2022 – DOI reported the mesquite tree cluster in the center of AOC10 TAA2 and the single mesquite tree just beyond the TAA boundary to the southeast must be removed to meet project objectives RAO 2 and RAO 3, and the mesquite trees in AOC10 TAA4 will remain in place.
- January 4, 2023 – Began removal of the mesquite trees from the TAA, as well as the contaminated soil beneath the trees.

Step-out excavations continued from September 2022 through May 2023. As step-out excavations progressed upstream of the initial TAA boundary, it became evident that metals and D/F contamination exceeding the numerical RAGs were present in soil across the TAA to depth ranging from approximately 2 to 7 feet bgs within East Ravine. White powder and discolored soil layers of greenish-gray, orange, and red were encountered at varying thicknesses and depths.

XRF screening, visual evidence, and confirmation soil sample results confirmed contaminant concentrations exceeding the numerical RAGs extended approximately 400 feet west from the original TAA boundary. The step-out excavations ended near the junction of the northwestern extent of East Ravine at AOC10TAA2-CW27-2 and the stormwater drainage channel to the southwest at AOC10TAA2-CW33-2.

Soil NTCRA removal activities were completed in May 2023 and included the removal of approximately 8,271 yd³ of contaminated soil. Figure 3-9 shows the full extent of the AOC10 TAA2 excavation.

3.9.3 Contamination Summary

Contamination within the original AOC10 TAA2 boundary (the impoundment) was observed in fairly consistent layers to approximately 5 feet bgs. The most prominent layers were the white powder lens (2 to 3 inches thick) at approximately 2.5 feet bgs and the greenish-gray soil beneath the white powder from about 3 to 5 feet bgs. The impacts were primarily in the soft sediment within the ravine and were limited within the hard conglomerate of the East Ravine walls.

Analytical results from soil samples collected within the original TAA contained metals and D/F TEQ at concentrations exceeding the numerical RAGs, including:

- Chromium up to 19,000 mg/kg
- Cr(VI) up to 49 mg/kg
- Copper up to 720 mg/kg
- Lead up to 280 mg/kg
- D/F TEQ up to 1,100 ng/kg

Farther upstream from the original TAA, the white powder and greenish-gray discolored soil varied in thicknesses and depths, likely due to meandering surface water flow through the narrow and winding East Ravine. The upstream portions of East Ravine also included orange and red discolored soil layers.

Analytical results from soil samples collected upstream of the original TAA contained metals and D/F TEQ at concentrations exceeding the numerical RAGs. The greatest concentrations were detected within approximately 100 feet of the southwestern extent of the original TAA, including:

- Chromium up to 4,400 mg/kg
- Cr(VI) up to 73 mg/kg
- Copper up to 470 mg/kg
- Lead up to 150 mg/kg
- D/F TEQ up to 1,100 ng/kg

3.9.4 Confirmation Soil Sampling Results

Confirmation sidewall and floor soil samples were collected in accordance with the Soil NTCRA Work Plan. At AOC10 TAA2, confirmation floor samples within the original TAA were collected at depths of approximately 5 to 6 feet bgs. Sidewall confirmation soil samples in the original TAA were collected and showed white powder and greenish-gray soil from 3 to 4 feet bgs. In the upstream portion of East Ravine, confirmation floor sample depths varied from 2 to 7 feet bgs. Sidewall soil samples were collected from approximately 1 to 7 feet deep based on evidence of contamination or at the approximate midpoint of the excavation sidewall. Figure 3-9 shows the confirmation soil sample locations. Table 3-9 summarizes confirmation soil sample results.

Confirmation soil samples were also collected from inflow sediment following storm events to determine whether the storm-generated inflow material required removal. These samples included:

- AOC10TAA2-CF23-0
- AOC10TAA2-CF24-0
- AOC10TAA2-CF4a-1
- AOC10TAA2-CF7a-1
- AOC10TAA2-CF15a-1

Ninety-four confirmation soil samples were collected from AOC10 TAA2. Confirmation soil samples were collected from the original TAA boundary and initially proposed excavation depth, as well as at step-out

locations where numerical RAGs were exceeded. Locations with RAG exceedances and subsequent removal actions were as follows:

- In the initial TAA excavation sidewall, including beneath the mesquite cluster, greenish-gray discolored soil and white powder contained the following concentrations:
 - Chromium ranged from 260 to 19,000 mg/kg.
 - Copper ranged from 180 to 720 mg/kg.
 - Lead ranged from 75 to 280 mg/kg.
 - Cr(VI) ranged from 31 to 49 mg/kg.
 - D/F TEQ ranged from 780 ng/kg by EPA Method SW4025 to 1,100 ng/kg by EPA Method SW8290. Several samples exceeded the numerical RAG from EPA Method SW4025 and were not analyzed for D/F TEQ by EPA Method SW8290 due to high metals concentrations.
 - Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample were less than the numerical RAG.
- At the following locations, approximately 50 to 75 feet southwest of the initial TAA boundary, reddish-orange soil and associated debris was observed in the floor and sidewall of the step-out excavation:
 - AOC10TAA2-CF8-4
 - AOC10TAA2-CF9-4
 - AOC10TAA2-CW12-3
 - AOC10TAA2-CW13-3

The samples contained the following concentrations:

- Chromium ranged from 1,700 to 4,400 mg/kg
- Copper ranged from 200 to 470 mg/kg
- Lead ranged from 70 to 150 mg/kg
- D/F TEQ by EPA Method SW4025 ranged from 120 to 223 J (where J indicates an estimated value) ng/kg; the samples were not analyzed for D/F TEQ by EPA Method SW8290 due to their high metals concentrations

Step-out excavations were conducted to remove the contaminated soil. Contaminants exceeded the numerical RAGs in a subsequent sidewall sample, AOC10TAA2-CW12a-5. The subsequent confirmation floor sample, AOC10TAA2-CF8a-5, was less than the numerical RAG.

- At AOC10TAA2-CF22-7, soil from the floor of the step-out excavation contained chromium at concentrations of 180 mg/kg. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, AOC10TAA2-CF22a-3, were less than the numerical RAG. This sample was collected 3 feet below AOC10TAA2-CF22-7, for an actual depth of 10 feet bgs.
- At AOC10TAA2-CW12a-5, soil from the sidewall of the step-out excavation contained chromium at concentrations of 160 mg/kg. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, AOC10TAA2-CW12b-5, were less than the numerical RAG.
- At AOC10TAA2-CW16-6, soil from the sidewall of the step-out excavation contained chromium at concentrations of 370 mg/kg. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, AOC10TAA2-CW16a-4, were less than the numerical RAG.

- At AOC10TAA2-CW18-5, soil from the sidewall of the step-out excavation contained chromium at concentrations of 190 mg/kg. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, AOC10TAA2-CW18a-5, were less than the numerical RAG.
- At AOC10TAA2-CW19-5, soil from the sidewall of the step-out excavation contained chromium at concentrations of 270 mg/kg. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, AOC10TAA2-CW40-6, were less than the numerical RAG.
- At AOC10TAA2-CW20-1 and collocated AOC10TAA2-CW20-1FD, soil from the sidewall of the step-out excavation chromium concentrations ranged from 280 to 290 mg/kg. Cr(VI) concentrations ranged from 6.8 to 8.2 mg/kg. D/F TEQ concentration was 139 J ng/kg by EPA Method SW4025 and 1,100 ng/kg by EPA Method SW8290. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, AOC10TAA2-CW37-3, were less than the numerical RAG.
- At AOC10TAA2-CW21-2, soil from the sidewall of the step-out excavation contained chromium at a concentration of 380 mg/kg. D/F TEQ was present at a concentration of 100 ng/kg by EPA Method SW4025. The sample was not analyzed for D/F TEQ by EPA Method SW8290 due to the high metals concentrations. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, AOC10TAA2-CW21a-3, were less than the numerical RAG.
- At AOC10TAA2-CW22-2, soil from the sidewall of the step-out excavation contained chromium at a concentration of 260 mg/kg. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, AOC10TAA2-CW22a-3, were less than the numerical RAG.
- At AOC10TAA2-CW25-2 and collocated AOC10TAA2-CW25-2FD, soil from the sidewall of the step-out excavation contained chromium at concentrations that ranged from 500 to 580 mg/kg. Copper was detected at a concentration that ranged from 130 to 150 mg/kg. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, AOC10TAA2-CW25a-3, were less than the numerical RAG.
- At AOC10TAA2-CW28-2, soil from the sidewall of the step-out excavation contained chromium at a concentration of 580 mg/kg. Lead was detected at a concentration of 46 J mg/kg. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, AOC10TAA2-CW28a-3, were less than the numerical RAG.
- At AOC10TAA2-CW29-2, soil from the sidewall of the step-out excavation contained chromium at a concentration of 380 mg/kg. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, AOC10TAA2-CW29a-4, were less than the numerical RAG.
- At AOC10TAA2-CW30-5, soil from the sidewall of the excavation contained chromium at a concentration of 440 mg/kg. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, AOC10TAA2-CW30a-5, were less than the numerical RAG.

3.9.5 Waste Management Summary

Excavated soil from AOC10 TAA2 was hauled directly to the SPY and stockpiled for waste characterization before disposal.

Eighteen soil stockpile samples were collected and analyzed in accordance with the waste characterization plan described in Section 2.8.1. Analytical results characterized the stockpiles as nonhazardous waste. Republic Services approved the waste for disposal under Profile 51242215499, along with other soil from East Ravine. Approximately 10,500 tons of nonhazardous waste were transported to La Paz Landfill in Parker, Arizona for disposal (Table 2-1).

Appendix H contains the Waste Tracking Log, which summarizes the waste transportation and disposal details, and the final signed waste manifests and disposal facility weight tickets.

3.9.6 Backfill and Site Stabilization

The proposed backfill and site stabilization approach at AOC10 TAA2 described in the Soil NTCRA Work Plan was revised based on the extensive expansion of the TAA. A strategic approach for backfilling East Ravine was developed that left the ravine in a state that is safe and compatible with the ongoing land use and eliminated the need for importing up to 5,000 yd³ of fill material. A request to modify the backfill plan was submitted to DOI on January 20, 2023 (and revised on February 2, 2023) to detail the approach (Appendix A).

Select backfilling was performed along edges of the excavation to smooth topography and reduce vertical slopes. The only backfill used was from onsite soil generated from remedy construction and TCS projects.

DOI approved the AOC10 TAA2 strategic backfill approach on February 3, 2023 (Appendix A). Implementation of the approach began soon thereafter, with the priority of providing a consistent stormwater flow gradient through East Ravine, reducing ponding in areas used for vehicle access, and leaving the ravine in a safe condition for future worker access. Two locations within East Ravine required significant backfill:

- 1) The area near the MW-58 well cluster in the original TAA boundary was backfilled with clean, onsite material staged at the SPY. The well head risers required support and projection from stormwater flows. Additionally, the area was backfilled to allow for well maintenance vehicle access. Compaction testing was conducted to confirm placement of the soil to 90% of the maximum dry density.
- 2) The area near ER-6 in the upper extent of East Ravine was backfilled with clean, onsite material staged at the SPY. ER-6 is part of the proposed groundwater remedy and required protection from stormwater flow through East Ravine. The backfill material was covered with riprap to dissipate and direct surface water flows around the ER-6 well head. The backfill measures conducted at part of the Soil NTCRA were temporary and will be adjusted, as needed, during remedy construction. Compaction testing was conducted to confirm placement of the soil to 90% of the maximum dry density.

As part of the strategic backfill approved by DOI, walls within East Ravine were shaped to reduce the potential of sluffing or slope failure, a safety hazard for current and future workers. Near-vertical sidewalls were reduced to a slope of approximately 1H:1V (where H is horizontal, and V is vertical). At sidewalls that could not be sloped to 1H:1V, clean soil was placed as the base of the sidewall to allow the slope to match the natural topography.

Appendix I shows site conditions upon completion of the Soil NTCRA activities in June 2023.

3.10 AOC 10 – East Ravine – TAA 3

This section describes the Soil NTCRA activities for AOC10 TAA3.

3.10.1 Target Action Area Background

AOC10 TAA3 is located east of TCS on HNWR property and adjacent to the intersection of B-Line Road and the access route to East Ravine (Figure 3-10). The TAA consisted of a small pile of contaminated soil and debris approximately 1 foot above the surrounding grade that appears to have been placed many years ago. Appendix I provides a pre-removal site photograph. While an area around the pile was designated as the TAA, the contamination was confined to the pile.

Historical soil sample results indicated contaminated soil was limited to the top 1 foot of soil. The detailed understanding of the nature and extent of contamination at the TAA is available in the RFI/RI Report Volume 3 (Jacobs 2024a).

3.10.2 Removal Summary

Removal activities at AOC10 TAA3 began in August 2022. The initial excavation removed the pile of soil and debris identified within the TAA to approximately 2 feet bgs on the northern and eastern sides, but due to sloping ground surface, the excavation was level with the surrounding grade on the southern and western sides (Appendix I).

Results of the initial round of confirmation soil sampling indicated contaminants exceeding the numerical RAGs were removed. No additional excavation was warranted. Figure 3-10 shows the full extent of the AOC10 TAA3 excavation.

Excavation activities were completed in August 2022 and included the removal of approximately 73 yd³ of contaminated soil.

3.10.3 Contamination Summary

Contamination at AOC10 TAA3 was confined to the debris pile. Historical samples collected from the gray soil and debris within the pile detected D/F TEQ at concentrations exceeding the numerical RAG (Jacobs 2024a). The debris pile was removed during the Soil NTCRA.

3.10.4 Confirmation Soil Sampling Results

Confirmation soil samples were collected from the excavation sidewalls and floor and analyzed in accordance with the Soil NTCRA Work Plan. At AOC10 TAA3, one confirmation floor sample was collected at a depth of approximately 2 feet bgs, the depth of the bottom of the excavation. Sidewall samples were collected from the midpoint of the excavation at approximately 1 feet bgs on the northern and eastern sides, but due to a sloping ground surface, there were not excavation sidewalls on the southern and western sides. Sidewall samples on the southern and western sides were collected from the excavation floor at 2 feet bgs. Figure 3-10 shows the confirmation soil sample locations. Table 3-10 summarizes confirmation soil sample results.

Five confirmation soil samples were collected from AOC10 TAA3. Confirmation soil sample results at the extent of the initial excavation to 2 feet bgs were less than the numerical RAGs. No additional confirmation sampling was conducted at the TAA.

3.10.5 Waste Management Summary

Excavated soil from AOC10 TAA3 was hauled directly to the SPY and stockpiled for waste characterization and disposal. The small quantity of waste was combined with waste from adjacent AOC10 TAA2. Analytical results characterized the stockpile as nonhazardous waste. Republic Services approved the waste for

disposal under Profile 51242215499, along with other soil from East Ravine. Approximately 90 tons of nonhazardous waste were transported to La Paz Landfill in Parker, Arizona for disposal (Table 2-1).

Appendix H contains the Waste Tracking Log, which summarizes the waste transportation and disposal details, and the final signed waste manifests and disposal facility weight tickets.

3.10.6 Backfill and Site Stabilization

Backfill operations were conducted to fill the small excavation and grade the area as part of East Ravine access route improvements. Clean onsite material staged at the SPY was used to fill the area. Compaction testing was conducted to confirm placement of the soil to 90% of the maximum dry density.

Appendix I shows site conditions upon completion of the Soil NTCRA activities in September 2022.

3.11 AOC 10 – East Ravine – TAA 4

This section describes the Soil NTCRA activities for AOC10 TAA4.

3.11.1 Target Action Area Background

AOC10 TAA4 is located east of TCS on HNWR property and adjacent to the intersection of B-Line Road and the access route to East Ravine (Figure 3-11). Soils within the TAA are primarily depositional silts and sands from flows within East Ravine impounded by construction of the B-Line Road. A cluster of mesquite trees is present to the southwest of the TAA. Appendix I provides a pre-removal site photograph.

The TAA consists of a small area of chromium- and D/F-contaminated soil that is likely the result of impoundment of TCS discharge water in the East Ravine. Historical data indicated a thin white powder layer present at approximately 2 to 3 feet beneath the surface coincides with the greatest contaminant concentrations. While the white powder was also detected farther upstream, the original TAA was focused on the small retention area next to B-Line Road. The detailed understanding of the nature and extent of contamination at the TAA is available in the RFI/RI Report Volume 3 (Jacobs 2024a).

3.11.2 Removal Summary

Soil NTCRA activities at AOC10 TAA4 began in August 2022. The initial excavation removed soil to the extent of the TAA boundary and to a depth of 5 feet bgs before the collection of confirmation soil samples. The historically identified white powder lens (2 to 3 inches thick) was encountered at approximately 2.5 feet bgs throughout the TAA and in the sidewalls of the excavation. Sidewall confirmation soil samples were collected from 3 feet bgs, approximately 6 inches below the white powder lens. An additional sample of the white powder was also collected, AOC10TAA4-CW5-3. Results of the initial round of confirmation soil sampling indicated chromium and D/F at concentrations exceeding the numerical RAG were present in the white powder and sidewall soil beneath the white powder. Results indicated soil in the floor of the excavation did not exceed numerical RAGs.

Rainstorm events on August 24 and September 11, 2022, flooded the TAA excavation and transported upstream sediments into the area. The excavation was subsequently dewatered on September 29, 2022. Stormwater recovered from the TAA was placed in an open-top frac tank for evaporation (Section 2.8). An additional rainstorm event on March 15, 2023, flooded the TAA excavation. The water was allowed to naturally evaporate and infiltrate.

The white powder and contaminant concentrations exceeding the numerical RAGs warranted removal; however, the western edge of the excavation was within a couple of feet of the mesquite tree cluster's drip

line (Appendix I). It was expected that step-out excavations would encounter the white powder and contaminants extending under the tree, necessitating removal of the tree. Discussions were held with DOI, and step-out excavations were temporarily delayed pending DOI approval.

In the meantime, several small roots observed in the excavation's western sidewall were managed in accordance with the Soil NTCRA mesquite management protocol; they were allowed to dry and then wrapped in burlap and kept moist.

The following includes a summary of notifications from Appendix B and activities regarding step-out approval with respect to the adjacent mesquite trees:

- August 20, 2022 - A notification was sent to DTSC, the Tribes, and CWG regarding the need to excavate beyond the TAA boundaries to remove white powder material.
- August 30, 2022 - A subsequent notification indicated that removal of the mesquite tree on the western side of the TAA was needed. The same day, an email from FMIT requested consultation and that the mesquite not be removed until the matter could be discussed further.
- September 18, 2022 - DOI notified PG&E and CWG that previous step-out approval did not include removal of the mesquite tree adjacent to the TAA.
- December 8, 2022 - DOI held a call with the Tribes and HNWR Representatives to discuss the status of the mesquite trees at both AOC10 TAA2 and AOC10 TAA4. The discussion concluded the mesquite trees in AOC10 TAA2 required removal to satisfy RAO 2 and RAO 3; the mesquite trees in AOC10 TAA4 were to remain. Preliminary sitewide averages of chromium and D/F based on the 95UCL of confirmation samples from AOC10 TAA4 indicated concentrations are likely acceptable and less than the RAGs. The pending updated HHERA will provide the post-NTCRA assessment of risk for AOC 10 - East Ravine.
- December 14, 2022 - Step-out excavations were conducted in all directions at AOC10 TAA4 to remove the white powder, except where they encroached upon the drip line of the mesquite trees.
- December 15, 2022 - DOI reported the mesquite tree cluster in the center of AOC10 TAA2 and the single mesquite tree just beyond the TAA boundary to the southeast must be removed to meet project objectives RAO 2 and RAO 3, and the mesquite trees in AOC10 TAA4 will remain in place.
- February 7, 2023 - During the CHPMP meeting, a weekly photolog showing the health of the mesquite tree was requested. Subsequent weekly inspections by a Jacobs Biologist were conducted from February 7 to April 11, 2023.
- April to June 2023 - Additional step-out excavation was conducted to remove white powder and contaminants exceeding the numerical RAG in areas upstream (west and southwest) of the original TAA.
- June 2023 - Backfill activities conducted, including replacement of soil surrounding the mesquite trees.

Step-out excavations continued from December 2022 through June 2023. As step-out excavations progressed upstream (west and southwest) of the initial TAA boundary, it became evident that chromium and D/F contamination exceeding the numerical RAGs were present in soil well beyond the initial TAA boundary. The white powder lens was encountered in varying locations and depths within the ravine, ranging from approximately 1 to 4 feet bgs. XRF screening, visual evidence, and confirmation soil sample results confirmed contaminant concentrations exceeding the numerical RAGs extended approximately 225 feet west (upstream) from the original TAA boundary. The step-out excavations did not detect white powder or contaminant concentrations exceeding the numerical RAGs beyond sample AOC10TAA4-CW16c-2 (Figure 3-11).

Soil NTCRA removal activities were completed in June 2023 and included the removal of approximately 910 yd³ of contaminated soil. Figure 3-11 shows the full extent of the AOC10 TAA4 excavation.

3.11.3 Contamination Summary

Contamination at AOC10 TAA4 was primarily encountered in a white powder lens (2 to 3 inches thick), which was present throughout much of the TAA excavation area. The white powder contained chromium, Cr(VI), and D/F TEQ at concentrations exceeding the numerical RAGs (Table 3-11).

The layer of white powder was most consistently observed within the original TAA boundary and immediately upstream of the TAA. This is likely due to the impoundment of surface water flows at the base of B-Line Road. The white powder was observed intermittently in the upstream portions of the excavation, likely due to meandering surface water flow through the narrow and winding East Ravine.

Chromium and D/F TEQ concentrations exceeding the numerical RAGs were also detected in brown soil without white powder. XRF results for chromium were often less than the screening-level threshold, though analytical results indicated concentrations just greater than the numerical RAG. In general, samples with chromium exceeding the numerical RAG also had D/F TEQ concentrations exceeding the numerical RAG.

3.11.3.1 Remaining Contamination

Chromium- and D/F-impacted soil exceeding the numerical RAGs remains beneath the mesquite tree cluster to the west of the original TAA boundary. The remaining contamination is represented by confirmation soil samples AOC10TAA4-CW6-3 and AOC10TAA4-CW13-2 (Figure 3-11). Chromium was detected in AOC10TAA4-CW6-3 at 400 mg/kg, exceeding the RAG of 145 mg/kg. D/F TEQ concentrations were 880 and 210 ng/kg, respectively, exceeding the RAG of 190 ng/kg (Table 3-16).

Although the D/F TEQ concentrations exceed the selected RAG of 190 ng/kg based on the RBRG for desert shrew, one of the two samples contain TEQ concentrations at or less than the alternate RBRG calculated for this receptor of 360 ng/kg) (Arcadis 2019). A lens of white extends to the northern and western side of the mesquite tree cluster. However, based on the observation of the TAA excavation, the white powder is not likely to extend south of the mesquite tree cluster due to the presence of the native conglomerate rock.

3.11.4 Confirmation Soil Sampling Results

Confirmation sidewall and floor soil samples were collected in accordance with the Soil NTCRA Work Plan. At AOC10 TAA4, confirmation floor samples were collected at depths of approximately 5 feet bgs on the eastern side, near the original TAA, and approximately 2 to 3 feet farther upstream of East Ravine. Sidewall confirmation soil samples in the original TAA were collected from 3 feet bgs, approximately 6 inches below the white powder lens. An additional sample of the white powder was also collected, AOC10TAA4-CW5-3. Confirmation sidewall soil samples in step-out excavations were collected from approximately 1 to 2 feet deep, the approximate midpoint of the excavation sidewall. Figure 3-11 shows the confirmation soil sample locations. Table 3-11 summarizes confirmation soil sample results.

Forty confirmation soil samples were collected from AOC10 TAA4. Confirmation soil samples were collected at the original TAA boundary and initially proposed excavation depth as well as at step-out locations where numerical RAGs were exceeded. Locations with RAG exceedances and subsequent removal actions are discussed as follows:

- At AOC10TAA4-CF2-5, soil in the excavation floor to the north of the original TAA boundary contained D/F TEQ at a concentration of 300 ng/kg. Step-out excavations were conducted to remove

the contaminated soil, and the results from a subsequent confirmation soil sample, AOC10TAA4-CF2a-7, were less than the numerical RAG.

- At AOC10TAA4-CF8-2, white powder material was removed from the floor of the excavation on southern end, upstream of original TAA boundary, and contained a chromium concentration of 340 mg/kg and D/F TEQ concentration of 7,500 ng/kg. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, AOC10TAA4-CF7-2, were less than the numerical RAG.
- At AOC10TAA4-CW3-3 and collocated AOC1TAA4-CW3-3FD, soil beneath the white powder along the western sidewall of the original TAA boundary contained chromium at concentrations that ranged from 260 J to 320 J mg/kg. Step-out excavations were conducted to remove the contaminated soil; however, a subsequent confirmation sample, AOC10TAA4-CW6-3, also exceeded the numerical RAG.
- At AOC10TAA4-CW5-3, white powder material along the northeastern sidewall of the original TAA boundary contained chromium at a concentration of 530 J mg/kg and D/F TEQ at a concentration of 1,300 ng/kg. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, AOC10TAA4-CW7-2, were less than the numerical RAG.
- At AOC10TAA4-CW6-3, white powder material in the sidewall of the step-out excavation from AOC10TAA4-CW3-3 contained a chromium concentration of 400 mg/kg and D/F TEQ concentration of 880 ng/kg. The soil remains in the TAA, as removal would necessitate removal of the mesquite tree, which DOI did not permit.
- At AOC10TAA4-CW12-2, soil west of the original TAA and along the outside corner of East Ravine contained chromium concentrations of 240 mg/kg. D/F TEQ was also detected greater than 171 ng/kg by EPA Method SW4025. The sample was not analyzed for D/F TEQ by EPA Method SW8290 due to the high metals concentrations. This sample location is near historical RFI/RI sample L-3-2, where similar contaminant concentrations were detected. Step-out excavations were conducted to remove the contaminated soil; however, contaminant concentrations exceeded the numerical RAGs in a subsequent sample, AOC10TAA4-CW12a-1.
- At AOC10TAA4-CW12a-1, soil samples collected following the step-out samples from AOC10TAA4-CW12-2 contained Cr(VI) concentrations 4.8 mg/kg. D/F TEQ was also detected at a concentration of 190 ng/kg. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, AOC10TAA4-CW12b-1, were less than the numerical RAG.
- At AOC10TAA4-CW13-2, white powder material on the western side of the mesquite cluster, western sidewall of the original TAA boundary, contained D/F TEQ at a concentration of 210 ng/kg. The soil remains in the TAA, as removal would necessitate removal of the mesquite tree, which DOI did not permit.
- At AOC10TAA4-CW16-1, soil west of the original TAA and along the outside corner of East Ravine contained Cr(VI) concentrations of 5.0 mg/kg. Step-out excavations were conducted to remove the contaminated soil; however, contaminant concentrations exceeded the numerical RAGs in a subsequent sample, AOC10TAA4-CW16a-1.
- At AOC10TAA4-CW16a-1, a soil sample collected following the step-out samples from AOC10TAA4-CW16-1 contained D/F TEQ concentrations of 130 ng/kg. Step-out excavations were conducted to remove the contaminated soil; however, contaminant concentrations exceeded the numerical RAGs in a subsequent sample, AOC10TAA4-CW16b-2.5.
- At AOC10TAA4-CW16b-2.5 and collocated AOC10TAA4-CW16b-2.5FD, a soil sample was collected approximately 100 feet upstream of the previous step-out sample AOC10TAA4-CW16a-1 due to the continued observation of white powder and XRF results exceeding the screening threshold. The soil

contained chromium at concentrations that ranged from 150 to 170 mg/kg. D/F was detected at concentrations that ranged from 520 to 600 ng/kg. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, AOC10TAA4-CW16c-2, were less than the numerical RAG.

- At AOC10TAA4-CW17-1 and collocated AOC10TAA4-CW17-1FD, a soil sample was collected west of the original TAA and along the outside corner of East Ravine. The soil contained Cr(VI) at concentrations that ranged from nondetect to 3.9 J mg/kg. D/F was detected at concentrations that ranged from 140 to 360 ng/kg. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, AOC10TAA4-CW17a-1, were less than the numerical RAG.

3.11.5 Waste Management Summary

Excavated soil from AOC10 TAA4 was hauled directly to the SPY and stockpiled for waste characterization and disposal.

Two soil stockpile samples were collected and analyzed in accordance with the waste characterization plan described in Section 2.8.1. Analytical results characterized the stockpiles as nonhazardous waste. Republic Services approved the waste for disposal under Profile 51242215499, along with other soil from East Ravine. Approximately 1,150 tons of nonhazardous waste were transported to La Paz Landfill in Parker, Arizona for disposal (Table 2-1).

Appendix H contains the Waste Tracking Log, which summarizes the waste transportation and disposal details, and the final signed waste manifests and disposal facility weight tickets.

3.11.6 Backfill and Site Stabilization

Backfill of the TAA and upstream excavations were completed in June 2023 with approved onsite soil known as Dam V, which was removed from HNWR land. Once Dam V soil was expended, additional approved, clean, onsite material was used. Backfill and site stabilization was conducted to prioritize a consistent flow gradient through East Ravine and reduce ponding in areas used for vehicle access. Compaction testing was conducted to confirm placement of the soil to 90% of the maximum dry density.

Appendix I shows site conditions upon completion of the Soil NTCRA activities in June 2023.

3.12 AOC 11 – Topographic Low Areas – TAA 1

This section describes the Soil NTCRA activities for AOC11 TAA1.

3.12.1 Target Action Area Background

AOC11 TAA1 is a topographic low area on the northeastern side of TCS on HNWR property (Figure 3-12). The TAA is located at the base of a ravine with steep slopes to the south, east, and west. Soil within the TAA is a mixture of depositional sands and gravel and possibly fill material from construction of TCS. Historical runoff from the facility collected behind the constructed impoundment and infiltrated or evaporated. Appendix I provides a pre-removal site photograph.

Historical soil sample results indicate Cr(VI)- and D/F-contaminated soil is present primarily within approximately 5 to 6 feet of the surface. The detailed understanding of the nature and extent of contamination at the TAA is available in the RFI/RI Report Volume 3 (Jacobs 2024a).

3.12.2 Removal Summary

Soil NTCRA activities first began at AOC11 TAA1 in July 2022. The initial excavation removed contaminated soil to the lateral extent of the TAA boundaries to a depth of approximately 7.5 feet on the southern end of the TAA and to 10 feet on the northern end, where historical soil sample results indicated deeper contamination was present. A thin layer of white powder was observed on most excavation sidewalls between approximately 3 and 5 feet bgs.

Sidewall confirmation soil samples were collected from 3 to 5 feet bgs, including samples directly from the white powder layer. Results of the initial round of confirmation soil sampling indicated D/F TEQ and the following metals were present at concentrations exceeding the numerical RAG in most of the sidewall samples:

- Chromium
- Copper
- Lead
- Zinc

Confirmation floor sample results did not exceed the numerical RAGs.

The white powder and contaminant concentrations exceeding the numerical RAGs warranted step-out excavation to the west and east of the original TAA to remove the contamination. Expansion to the east required a revision to the work area boundaries. Step-out excavations were temporarily delayed pending DOI discussions with DTSC, the Tribes, and CWG (Appendix B). The following includes a summary of notifications and activities regarding step-out approval:

- August 2, 2022 – During a CHPMP meeting, DOI reported that discolored materials were encountered in the AOC11 TAA1 excavation.
- August 9, 2022 – DOI submitted a notification to DTSC, the Tribes, and CWG confirming that step-out excavation beyond the TAA boundary was warranted because contaminant concentrations exceeding the RAGs remained in the excavation sidewall.
- August 30, 2022 – DOI submitted a subsequent notification providing details of the step-out excavations at AOC11 TAA1. The same day, an email from FMIT requested Section 106 consultation regarding DOI's determination to continue excavation at AOC11 TAA1, among other matters. On August 31, 2022, other Tribes submitted agreement with the FMIT request.
- September 9, 2022 – DOI submitted a response to the FMIT request for consultation indicating that consultation was completed during preparation of the Soil NTCRA Work Plan. While the Tribes will be notified of the need to conduct step-out excavations, further consultation will not be needed.
- September 14, 2022 – FMIT Representatives concurred with the approach to continue excavating at AOC11 TAA1, as detailed in the communication dated August 30, 2022. DOI acknowledged receipt of the FMIT letter on September 15, 2022.

The DOI approved step-out excavations began on September 14, 2022, and continued until the white powder and contaminated soil exceeding the numerical RAGs was removed. Additional confirmation soil samples collected following removal of the white powder did not have contaminants at concentrations exceeding the numerical RAGs.

Excavation activities were completed in September 2022 and included the removal of approximately 754 yd³ of contaminated soil. Figure 3-12 shows the full extent of the AOC11 TAA1 excavation.

3.12.3 Contamination Summary

Contamination at AOC11 TAA1 was primarily encountered in a thin layer of white powder, which was observed throughout the TAA at approximately 3 to 5 feet bgs (Appendix I). Soil beyond the white powder also contained contaminants exceeding the numerical RAG, but to a lesser extent. The white powder contained chromium, copper, and D/F TEQ at concentrations exceeding the numerical RAGs (Table 3-12). Lead and zinc were also detected in one sample, AOC11TAA1-CW11-5, at concentrations exceeding the numerical RAGs (Table 3-12). The white powder and contaminated soil were removed during the Soil NTCRA.

3.12.4 Confirmation Soil Sampling Results

Confirmation soil samples were collected from the excavation sidewalls and floor and analyzed in accordance with the Soil NTCRA Work Plan. At AOC11 TAA1, confirmation floor samples were collected at depths of approximately 7.5 feet bgs on the southern end of the TAA and to 10 feet bgs on the northern end, where historical soil sample results indicated deeper contamination was present. Sidewall confirmation soil samples were collected from 3 to 5 feet bgs, the approximate midpoint of the excavation sidewall and where the white powder lens was observed. Figure 3-12 shows the confirmation soil sample locations. Table 3-12 summarizes confirmation soil sample results.

Twenty-three confirmation soil samples were collected from AOC11 TAA1. Confirmation soil sample results were collected from the extent of the original TAA boundary and initially proposed excavation depth, as well as at step-out locations where numerical RAGs were exceeded. Locations with RAG exceedances and subsequent removal actions are discussed as follows:

- At AOC11TAA1-CW5-6, soil from the excavation sidewall contained D/F TEQ at a concentration greater than 259 ng/kg detected by EPA Method SW4025. The sample was not analyzed for D/F TEQ by EPA Method SW8290. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, AOC11TAA1-CW5a-4, were less than the numerical RAG.
- At AOC11TAA1-CW6-3, soil from the excavation sidewall contained D/F TEQ at a concentration of 199 ng/kg detected by EPA Method SW4025. The sample was not analyzed for D/F TEQ by EPA Method SW8290. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, AOC11TAA1-CW6a-4, were less than the numerical RAG.
- At AOC11TAA1-CW6a-4FD, soil from the excavation sidewall contained a D/F TEQ concentration of 210 ng/kg detected by EPA Method SW8290 in an FD sample. The parent sample AOC11TAA1-CW6-4 had a D/F TEQ concentration of 140 ng/kg detected by EPA Method SW8290, which is less than the numerical RAG. The average of the parent and FD is less than the numerical RAG, and no additional soil removal was conducted.
- At AOC11TAA1-CW7-3, soil from the excavation sidewall contained chromium at a concentration of 160 mg/kg. D/F TEQ concentrations were greater than 365 ng/kg detected by EPA Method SW4025. The sample was not analyzed for D/F TEQ by EPA Method SW8290 due to the high metals concentrations. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, AOC11TAA1-CW7a-4, were less than the numerical RAG.
- At AOC11TAA1-CW9-3, soil from the excavation sidewall contained chromium at a concentration of 420 mg/kg and copper at 280 mg/kg. The sample was not analyzed for D/F TEQ. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, AOC11TAA1-CW9a-4, were less than the numerical RAG.
- At AOC11TAA1-CW10-4, soil from the excavation sidewall contained chromium at a concentration of 1,400 mg/kg and copper at 400 mg/kg. The sample was not analyzed for D/F TEQ. Step-out

excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, AOC11TAA1-CW6a-4, were less than the numerical RAG.

- At AOC11TAA1-CW11-5, soil from the excavation sidewall contained the following concentrations:
 - Chromium at 1,700 mg/kg
 - Copper at 850 mg/kg
 - Lead at 46 mg/kg
 - Zinc at 2,000 mg/kg

Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, AOC11TAA1-CW11a-4, were less than the numerical RAG.

3.12.5 Waste Management Summary

Excavated soil from AOC11 TAA1 was hauled directly to the SPY and stockpiled for waste characterization before disposal.

Two soil stockpile samples were collected and analyzed in accordance with the waste characterization plan described in Section 2.8.1. Analytical results characterized the stockpiled soil as nonhazardous waste. Republic Services approved the waste for disposal under Profile 51242213264. Approximately 1,300 tons of nonhazardous waste were transported to La Paz Landfill in Parker, Arizona for disposal (Table 2-1).

Appendix H contains the Waste Tracking Log, which summarizes the waste transportation and disposal details, and the final signed waste manifests and disposal facility weight tickets.

3.12.6 Backfill and Site Stabilization

In accordance with Section 3.1.12 of the Soil NTCRA Work Plan pertaining to AOC11:

"Backfill beyond surficial grading is not expected to be required due to the remote location and existing rough terrain."

A site walk conducted on September 9, 2022, with PG&E Representatives and the onsite Biologist concluded that backfill of the TAA was not warranted or recommended. The edge of the TAA excavation to the north and south are level with the surrounding grade, though the area does slope to the north. Resulting topography of the area matched that of the ravine contours and does not result in ponding water or cause an entrapment hazard to wildlife.

Appendix I shows site conditions upon completion of the Soil NTCRA activities in September 2022.

3.13 AOC 14 – Railroad Debris Site – TAA 1

This section describes the Soil NTCRA activities for AOC14 TAA1.

3.13.1 Target Action Area Background

AOC14 TAA1 is located on the slope above BCW immediately north of I-40 on the Caltrans ROW (Figure 3-13). The TAA consists of undulating terrain and is sparsely vegetated. AOC14 historically contained miscellaneous debris related to construction of the railroad, including chunks of asphalt, railroad ties, and piping. Appendix I provides a pre-removal site photograph.

ACM and burnt material from PG&E operations have also been disposed of at AOC 14. In addition to waste-burning activities in the area, former TCS employees reported that water-softening (lime) sludge was also disposed of in this area. A thin white layer assumed to be water-softening material can be observed in the I-40 freeway cut.

Historical employee reports suggested that a removal action for some of the debris and white powdery material was conducted in the mid-1990s; however, no documentation regarding the removal has been found (DTSC 2006). PG&E also completed a cleanup action at AOC 14 in 1999 to address ACM (CH2M 2007).

Historical soil sample results indicate soil contaminated with D/F and the following metals was present in the TAA, primarily within approximately 5 to 6 feet of the surface:

- Chromium
- Copper
- Lead
- Mercury
- Molybdenum
- Zinc

The detailed understanding of the nature and extent of contamination at the TAA is available in the RFI/RI Report Volume 3 (Jacobs 2024a).

3.13.2 Removal Summary

Before the start of removal activities at AOC14 TAA1, coordination with Caltrans was conducted to update the Encroachment Permit 08-22-N-UT-0838, prepare an Access Agreement signed on August 12, 2022, and request lane closures for safe vehicle access (Section 2.1.1).

Soil NTCRA removal activities at AOC14 TAA1 began in February 2023. Construction of an access ramp was conducted east of the TAA to allow heavy equipment access from the I-40 shoulder. A white powder lens was encountered during access ramp construction. The white powder was removed in the area of the ramp; however, Soil NTCRA activities did not include removal of the white powder outside of the defined TAA.

The initial excavation removed soil from the northern extent of the TAA and to a depth of approximately 6 feet bgs. A step-out request was submitted to DOI to remove a narrow section of soil west of the TAA boundary and along the top of the slope to BCW. The step-out was necessary due to the TAA boundary not fully capturing soil along the BCW slope. Removing the soil was necessary so that material that would sluff into BCW was not left that could impact backfilling the excavation.

As the initial excavation progressed to the south, pockets of debris, including wood, metal, and trash, were encountered in the floor of the excavation (Appendix I). On February 14, 2023, white insulation bricks suspected to be friable ACM were observed in the floor of the excavation and also in stockpiled material already transported to the SPY. Work halted pending laboratory analysis of the material and discussion with CWG. Laboratory analysis confirmed the material contained 12% friable asbestos.

Due to the presence of friable asbestos, work at AOC14 TAA1 was postponed until an asbestos contractor could be procured and appropriate permitting and planning could be completed. In the meantime, AOC14 TAA1 waste stockpiles at the SPY were covered with plastic sheeting, and debris in the open excavation at the TAA was temporarily covered with clean fill soil. On February 21, 2023, PG&E notified DTSC of the findings and postponement of the removal activities.

Characterization and profiling of the AOC14 TAA1 waste already at the SPY was expedited to allow for disposal of the waste within 90 days of generation. Waste characterization classified the waste as non-RCRA hazardous due to the presence of friable asbestos. AES, a certified asbestos contractor, and MPe Trucking, a hazardous waste hauler, were procured to load and transport the non-RCRA hazardous waste staged at the SPY.

The following additional tasks were completed in preparation for disposal of the AOC14 TAA1 non-RCRA hazardous waste staged at the SPY:

- On March 1, 2023, PG&E applied for a temporary EPA Generator ID for the SPY due to the presence of non-RCRA hazardous waste. DTSC approved the request on the same day, and the SPY was given temporary EPA ID CAC003220396. The temporary ID expired on June 1, 2023.
- On April 14, 2023, Advanced Environmental Group, Inc. (AEG) submitted an Asbestos Debris Cleanup Work Plan (Appendix B) for the loading and disposal of the non-RCRA hazardous waste at the SPY and for the removal of ACM remaining in the AOC14 TAA1 excavation.
- On April 19, 2023, Republic Services approved disposal of the non-RCRA hazardous waste at the La Paz Landfill in Parker, Arizona under Profile 5124235371.
- On April 20, 2023, MDAQMD approved the Notification of Demolition/Renovation 2023-ASB-107.

Between April 25 and May 2, 2023, AES and MPe Trucking loaded and transported the non-RCRA hazardous waste at the SPY to La Paz Landfill in Parker, Arizona for disposal.

The return to AOC14 TAA1 excavation was scheduled for late 2023 due to the proximity of TAA to Bat Roost 2, which limited access to the area during bat maternity season from March 15 to August 31. The following additional tasks were completed in preparation for continued excavation of ACM-impacted materials from AOC14 TAA1:

- On August 2, 2023, Caltrans approved extension of the PG&E Access Agreement to February 12, 2024.
- On October 16, 2023, AEG submitted a Revised Asbestos Debris Cleanup Work Plan (Appendix B) for the removal of ACM remaining in the AOC14 TAA1 excavation.
- On October 16, 2023, PG&E applied for a temporary EPA Generator ID for the non-RCRA hazardous waste generated at AOC 14. DTSC approved the request on October 20, 2023, and AOC 14 was given temporary EPA ID CAC003257474.
- On October 25, 2023, MDAQMD approved the Notification of Demolition/Renovation 2023-ASB-287.
- On October 30, 2023, Republic Services approved disposal of the non-RCRA hazardous waste at the La Paz Landfill in Parker, Arizona under Profile 51242316379. A new profile was required due to the change in EPA ID location from the SPY to AOC 14.

On November 13, 2023, AES and MPe Trucking returned to AOC14 TAA1 to continue removal of ACM-impacted soil and debris within the TAA in accordance with the Revised Asbestos Debris Cleanup Work Plan (Appendix B). Excavation was conducted from north to south, removing the cover soil placed over the ACM waste and extending the excavation depth to 10 feet bgs. Waste was direct-loaded into waiting haul trucks double-lined with 6 mil polyethylene sheeting. Once filled, the 6 mil sheeting was sealed around the waste for transport and disposal to La Paz Landfill in Parker, Arizona.

Removal activities continued south within the TAA boundary to a depth of 10 feet bgs until the excavation began to encroach upon the I-40 shoulder at the southern edge of the TAA. While additional debris was evident in the southern sidewall, excavation was stopped so that the I-40 shoulder was not undermined.

Upon completion of the excavation, confirmation soil samples were collected from the excavation sidewalls and floor. Samples from the southern sidewall and floor below 10 feet bgs contained debris. Sample locations along the northern and eastern sidewall did not contain debris. Due to the TAA location on the slope, there was no western sidewall.

The results of the confirmation soil sampling indicated locations where debris remained contained contaminants at concentrations exceeding the numerical RAGs:

- AOC14TAA1-CW7-1 from the southern sidewall
- AOC14TAA1-CF2-10 from the center floor
- AOC14TAA1-CF3-10 from the southern floor

The remaining sample locations did not contain contaminants exceeding the numerical RAGs (Figure 3-13).

Following discussions with DOI, continued excavation below 10 feet bgs was approved to remove debris in the floor of the excavation. The decision was based on the location of AOC14 TAA1 within Caltrans ROW and the difficulty in accessing the area in the future. Additionally, the deeper excavation allowed for 10 feet of backfill material to be placed over the location of the RAG exceedances while maintaining the desired 2H:1V slope into BCW, where H is horizontal, and V is vertical. DOI requested additional excavation along the southern sidewall to gain an understanding of the extent of debris beneath the I-40 shoulder. The additional excavation in the floor was only warranted in the southern third of the TAA, where an additional 3 vertical feet of material was removed until the excavation was free of debris. The additional excavation on the southern sidewall of the TAA removed approximately 3 feet of material before reaching the edge of the I-40 asphalt and an associated utility box. Discolored soil and debris were still evident within the sidewall of the southern boundary of the excavation.

Confirmation soil sampling following the additional floor excavation indicated the center sample, AOC14TAA1-CF2a-13, did not exceed numerical RAGs; while the southern sample, AOC14TAA1-CF3a-13, exceeded the numerical RAG for copper (Figure 3-13). However, further excavation at AOC14TAA1-CF3a-13 was not requested from DOI, as the excavation had reached the maximum RAO depth of 10 feet bgs.

Confirmation soil sampling following the additional southern sidewall excavation indicated copper and lead exceeded the numerical RAGs at AOC14TAA1-CW7a-3 (Figure 3-13). Further excavation to the south could not be conducted, as it would undermine the I-40 shoulder.

Before backfilling operations, the eastern sidewall was sloped to allow for safe access of personnel and equipment. During sloping, additional debris was encountered along the southeastern sidewall. The debris was removed, and subsequent samples were collected. Contaminant concentrations did not exceed numerical RAGs.

Soil NTCRA removal activities were completed in February 2024 and included the removal of approximately 1,640 yd³ of contaminated soil. Figure 3-13 shows the full extent of the AOC14 TAA1 excavation.

3.13.2.1 AOC 14 Historical Well Search

During preparation for Soil NTCRA activities, a review of historical records indicated that a historical water well may be located in the vicinity of AOC14 TAA1. A geophysical survey was conducted in early 2024 in an attempt to determine whether the historical well, PGE-02, could be located within the potential AOC14 TAA1 excavation area.

Results from the geophysical survey identified two anomalies indicative of a possible vertical well casing. Anomalies A and B were within the AOC14 TAA1 work area, just north-northeast of the initial TAA boundary

(Figure 3-13). Additionally, surface debris, conduit, and concrete possibly related to a historical well, though not proven, were also observed on the ground surface within AOC 14. On February 9, 2024, DOI approved excavation of the anomalies to a maximum of 5 feet bgs.

On February 12 and 15, 2024, pothole excavations and trenches removed soil at Anomalies A and B to approximately 5 feet bgs in search of evidence of a historical well. DTSC Representatives were onsite to observe the excavation process. The pothole excavations and trenches did not encounter evidence of a historical well. The excavations were backfilled with clean AB material from Campbell's Quarry in Lake Havasu City, Arizona.

3.13.3 Contamination Summary

Contamination at AOC14 TAA1 included discolored soil and debris, including:

- Metal
- Wood
- Trash
- White insulation bricks

Debris was often concentrated in pockets or layers at various depths between the surface and approximately 13 feet bgs. Sample results from samples collected from locations not located in discolored soil and debris were less than the numerical RAGs.

Soil in and around the debris areas contained contaminants at concentrations exceeding the numerical RAGs. White insulation bricks encountered in the debris contained 12% friable asbestos. Analytical results from soil samples collected from AOC14 TAA1 contained metals and D/F TEQ at concentrations exceeding the numerical RAGs, including:

- Total chromium up to 340 mg/kg
- Cr(VI) up to 5.7 mg/kg
- Copper up to 2,800 mg/kg
- Lead up to 2,500 mg/kg
- Mercury up to 2.2 mg/kg
- Molybdenum up to 29 mg/kg
- Zinc up to 3,400 mg/kg
- D/F TEQ greater than 400 ng/kg detected by EPA Method SW4025

The discolored soil and debris within the TAA and approved step-outs were removed during the Soil NTCRA, except for the southern extent of the TAA, which was not removed due to concerns for undermining the I-40 highway shoulder, and the soil in the floor of the excavation on the southern end of the TAA where contaminants were present below 10 feet bgs.

3.13.3.1 Remaining Contamination

Copper- and lead-impacted soil exceeding the numerical RAGs remains in the southern sidewall of the TAA and is represented by confirmation soil sample AOC14TAA1-CW7a-3 (Figure 3-13). Copper was detected at 1,600 and lead at 150 mg/kg, exceeding the RAGs of 145 mg/kg for copper and 36 mg/kg for lead. The remaining contaminated soil is associated with waste debris. Concentrations are anticipated to be highly variable and dependent on the type of debris encountered. Removal of the contaminated soil was not conducted due to the potential of undermining the I-40 highway shoulder.

Copper-impacted soil exceeding the numerical RAG remains in the southern floor of the TAA at 13 ft bgs, and is represented by confirmation soil sample AOC14TAA1-CF3a-13 at 310 mg/kg (Figure 3-13). Removal of the contaminated material from deeper than 10 feet bgs was not conducted because the

objectives of the Soil NTCRA were to remove contaminants exceeding the RAGs, which are only applicable within 10 feet of the ground surface, and the residual contaminated material is below the depth human and ecological receptors at the site could reasonably be exposed to (DOI 2021).

3.13.4 Confirmation Soil Sampling Results

Confirmation sidewall and floor soil samples were collected in accordance with the Soil NTCRA Work Plan. At AOC14 TAA1, confirmation floor samples were collected at depths of approximately 6 and 10 feet bgs during the initial excavation and up to 13 feet bgs following approved deeper excavations to remove debris. Sidewall confirmation soil samples were collected between 1 to 5 feet bgs from the approximate midpoint of the excavation sidewall. Figure 3-13 shows the confirmation soil sample locations. Table 3-13 summarizes confirmation soil sample results.

Twenty-four confirmation soil samples were collected from AOC14 TAA1. Confirmation soil samples were collected at the original TAA boundary and initially proposed excavation depth, as well as at step-out locations where numerical RAGs were exceeded. Locations with RAG exceedances and subsequent removal actions are discussed as follows:

- At AOC14TAA1-CW7-1, discolored soil and debris in the southern sidewall of the excavation contained the following concentrations:
 - Cr(VI) at concentrations of 5.7 mg/kg
 - Copper at concentrations of 1,800 mg/kg
 - Lead at concentrations of 610 mg/kg
 - Mercury at concentrations of 2.2 mg/kg
 - Zinc at concentrations of 1,300 mg/kg
 - D/F TEQ at concentrations of 145 J ng/kg by EPA Method SW4025; the sample was not analyzed for D/F TEQ by EPA Method SW8290 due to the high metals concentrations

Step-out excavations were conducted to remove the contaminated soil; however, results from a subsequent confirmation soil sample, AOC14TAA1-CW7a-3, exceeded the numerical RAG for copper and lead.

- At AOC14TAA1-CW7a-3, discolored soil and debris in the southern sidewall of the excavation contained copper at concentrations of 1,600 mg/kg and lead at 150 mg/kg, exceeding the numerical RAG. The soil remains in the TAA, as removal would undermine the I-40 shoulder.
- At AOC14TAA1-CF2-10, discolored soil and debris in the floor of the excavation contained the following concentrations:
 - Chromium at concentrations of 340 mg/kg
 - Copper at concentrations of 410 mg/kg
 - Lead at concentrations of 49 mg/kg

Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, AOC14TAA1-CF2a-13, were less than the numerical RAG.

- At AOC14TAA1-CF3-10, discolored soil and debris impacted soil in the floor of the excavation and contained the following concentrations:
 - Chromium at concentrations of 290 mg/kg
 - Copper at concentrations of 2,800 mg/kg
 - Lead at concentrations of 2,500 mg/kg
 - Mercury at concentrations of 1.5 mg/kg
 - Molybdenum at concentrations of 29 mg/kg
 - Zinc at concentrations of 3,400 mg/kg

- D/F TEQ at concentrations greater than 400 ng/kg by EPA Method SW4025; the sample was not analyzed for D/F TEQ by EPA Method SW8290 due to the high metals concentrations

Step-out excavations were conducted to remove the contaminated soil; however, results from a subsequent confirmation soil sample, AOC14TAA1-CF3a-13, contained copper at a concentration of 310 mg/kg.

- At AOC14TAA1-CF3a-13, soil in the floor of the excavation at 13 feet bgs contained copper at a concentration of 310 mg/kg. Due to the depth of the material, additional removal was not conducted. After backfilling, this material is currently below 10 feet bgs, which is below the RAO-defined depth and beyond the depth of exposure to receptors.

3.13.5 Waste Management Summary

Excavated soil from AOC14 TAA1 was initially hauled directly to the SPY and stockpiled for waste characterization and disposal. However, on February 14, 2023, white insulation bricks suspected to be friable ACM were observed in the stockpiled material, and transportation of AOC14 waste to the SPY ceased.

Four soil stockpile samples were collected from the material already hauled to the SPY and analyzed in accordance with the waste characterization plan described in Section 2.8.1. An additional sample of the white insulation brick was also analyzed for asbestos. Analytical results, including asbestos analysis of the white insulation brick, characterized the waste as non-RCRA hazardous because the white insulation bricks contained 12% friable asbestos. Waste containing greater than 1% of friable asbestos is classified as hazardous waste in California; however, because RCRA does not regulate asbestos as hazardous, the waste is considered non-RCRA hazardous per 22 CCR 66261.

On March 1, 2023, PG&E applied for a temporary EPA Generator ID for the SPY due to the presence of non-RCRA hazardous waste. DTSC approved the request on the same day, and the SPY was given temporary EPA Generator ID CAC003220396. Republic Services approved disposal of the non-RCRA hazardous waste at the La Paz Landfill in Parker, Arizona under Profile 5124235371.

Between April 25 and May 2, 2023, AES loaded the waste temporarily staged at the SPY in accordance with a newly developed Asbestos Debris Cleanup Work Plan (Appendix B), which included Level C PPE for workers in the EZ, additional air monitoring, and specific waste containerization procedures. Waste was loaded into haul trucks double-lined with 6 mil polyethylene sheeting. Once filled, the 6 mil sheeting was sealed around the waste in preparation for transport and disposal. MPE transported 863 tons of AOC14 non-RCRA hazardous waste to La Paz Landfill in Parker, Arizona for disposal.

Because hazardous waste was not permitted to be knowingly stockpiled at the SPY, subsequent AOC14 waste was direct-loaded into haul trucks for transport to the La Paz Landfill for disposal.

On October 16, 2023, PG&E applied for a temporary EPA Generator ID for the non-RCRA hazardous waste generated at AOC14. DTSC approved the request on October 20, 2023, and AOC14 was given temporary EPA Generator ID CAC003257474. Republic Services approved disposal of the non-RCRA hazardous waste at the La Paz Landfill in Parker, Arizona under Profile 51242316379. A new profile was required due to the change in EPA ID location from the SPY to AOC14.

Between November 13, 2023 and February 21, 2024, AES loaded the waste directly from AOC14 TAA1 in accordance with the Revised Asbestos Debris Cleanup Work Plan (Appendix B). Waste was direct-loaded into waiting haul trucks double-lined with 6 mil polyethylene sheeting. Once filled, the 6 mil sheeting was sealed around the waste in preparation for transport and disposal. MPE transported 1,577 tons of AOC14 non-RCRA hazardous waste to La Paz Landfill in Parker, Arizona for disposal.

Appendix H contains the Waste Tracking Log, which summarizes the waste transportation and disposal details, and the final signed waste manifests and disposal facility weight tickets.

3.13.6 Backfill and Site Stabilization

Before backfilling operations, an onsite meeting with Caltrans Representative Martin Morris was conducted to confirm the backfill requirements and desired slope design. The proposal included an approximately 2H:1V slope for the backfill material due to the location of the TAA along the steep hillside above BCW. A 2H:1V slope was selected to improve constructability and safety of the backfill operations while maintaining a natural appearance of the slope and appropriate surface water drainage into BCW.

Following approval by Caltrans, the TAA excavation was backfilled at a 2H:1V slope with AB material from Campbell's Quarry in Lake Havasu City, Arizona. Compaction testing was conducted to confirm placement of the soil to 90% of the maximum dry density. On February 28, 2024, Caltrans conducted a site walk and approved the backfill and site stabilization.

Appendix I shows site conditions upon completion of the Soil NTCRA activities in February 2024.

3.14 AOC 16 – Former Sandblast Shelter

This section describes the Soil NTCRA activities for AOC16 TAA1.

3.14.1 Target Action Area Background

AOC16 TAA1, the Former Sandblast Shelter, is located above SWMU 1 and AOC 1 in the lower yard of TCS on PG&E property (Figure 3-14). The TAA is flat and has historically been unpaved, except for the concrete driveway between the eastern edge of the shelter and the paved roadway. Appendix I provides a pre-removal site photograph.

AOC16 TAA1 is the only Soil NTCRA TAA that is within the TCS fence line. While AOC 16 was not designated as a potential action area in the EE/CA, it was included in the Action Memorandum (DOI 2021); therefore, it was addressed as part of the Soil NTCRA.

The sandblast shelter was installed in the late 1980s and was used to prepare metal items at the facility for protective coating. Sandblasting historically occurred in this area before the sandblast shelter was constructed. Abrasive material, like sandblast grit, was present on the ground in the immediate vicinity of the sandblast shelter (CH2M 2007).

Historical soil samples collected from the sandblast grit indicated elevated levels of copper and molybdenum. The detailed understanding of the nature and extent of contamination at the TAA is available in the RFI/RI Report Volume 3 (Jacobs 2024a).

3.14.2 Removal Summary

Soil NTCRA activities at AOC16 TAA1 began in October 2023. Due to the small volume of material requiring removal and the limited access to the TAA, removal was completed using hand shovels. The initial excavation removed black sandblast grit to the extent of the TAA boundary and to a depth of 1 foot bgs before the collection of confirmation soil samples (Appendix I). XRF screening did not indicate significant metal concentrations in the soil remaining after sandblast grit removal.

Results of the initial round of confirmation soil sampling indicated mercury in the southern sidewall in sample AOC16TAA1-CW1-0.5 at a concentration of 1.3 J mg/kg, greater than the numerical RAG of 1.0 mg/kg. DOI approved a request to complete a step-out excavation in the area of the mercury detection as well as the removal of additional sandblast grit observed on the ground surface in areas immediately northeast of the TAA (Figure 3-14). Soil from the southern sidewall and surface northeast of the TAA were removed, and the subsequent confirmation soil sample, AOC16TAA1-CW1a-0.5, was less than the numerical RAG.

Soil NTCRA removal activities were completed in November 2023 and included the removal of approximately 10 yd³ of contaminated soil. Figure 3-14 shows the full extent of the AOC16 TAA1 excavation.

3.14.3 Contamination Summary

Contamination at AOC16 TAA1 consisted of sand blasting grit on the surface and within the top few inches of the ground surface. Historical samples collected from the blasting grit detected copper and molybdenum at concentrations exceeding the numerical RAG (Jacobs 2024a). The blasting grit was removed during the Soil NTCRA.

3.14.4 Confirmation Soil Sampling Results

Confirmation sidewall and floor soil samples were collected in accordance with the Soil NTCRA Work Plan. At AOC16 TAA1, the confirmation floor sample was collected at a depth of approximately 1 foot bgs. Sidewall confirmation soil samples were collected approximately 0.5 foot bgs, the approximate midpoint of the excavation sidewall. Figure 3-14 shows the confirmation soil sample locations. Table 3-14 summarizes confirmation soil sample results.

Seven confirmation soil samples were collected from AOC16 TAA1. Confirmation soil sample results at the extent of the original TAA boundary and initially proposed excavation depth were less than the numerical RAGs, except for following:

- At AOC16TAA1-CW1-0.5, soil in the southern sidewall of the TAA excavation contained mercury at a concentration of 1.3J mg/kg. Step-out excavations were conducted to remove the contaminated soil, and the results from a subsequent confirmation soil sample, AOC16TAA1-CW1a-0.5, were less than the numerical RAG.

3.14.5 Waste Management Summary

Excavated blasting grit and underlying soil from AOC16 TAA1 were placed in a roll-off container temporarily staged near the TAA. The use of a roll-off container to store waste was selected due to limited volume of material, access issues on TCS, and the visibly contaminated nature of the blasting grit. The roll-off bin was transported to TWB for waste characterization before disposal. One sample was collected from the roll-off bin and analyzed in accordance with the waste characterization plan described in Section 2.8.1. Analytical results characterized the waste as nonhazardous. Republic Services approved the waste for disposal under Profile 51242315251, along with other soil from BCW.

The roll-off container was subsequently transported to the SPY, where it was emptied and added to the BCW soil stockpiles, which were approved for disposal under the same profile. Approximately 16 tons of nonhazardous waste were transported to La Paz Landfill in Parker, Arizona for disposal (Table 2-1).

Appendix H contains the Waste Tracking Log, which summarizes the waste transportation and disposal details, and the final signed waste manifests and disposal facility weight tickets.

3.14.6 Backfill and Site Stabilization

Backfill of the shallow excavation was completed to match the existing grade using a well-graded AB material from Campbell's Quarry in Lake Havasu City, Arizona.

Appendix I shows site conditions upon completion of the Soil NTCRA activities in November 2023.

3.15 AOC 27 – MW-24 Bench – TAA 1

This section describes the Soil NTCRA activities for AOC27 TAA1.

3.15.1 Target Action Area Background

AOC27 TAA1 is located along the eastern slope of BCW northwest of TCS on HNWR property (Figure 3-15). The TAA slopes to the southwest; is sparsely vegetated; and is covered with a mixture of depositional sands, gravels, and fill material containing miscellaneous construction debris and burnt material. The MW-24 Bench access road travels along the western side of the TAA, allowing access to BCW. Appendix I provides a pre-removal site photograph.

AOC27, also known as the MW-24 Bench, was formerly used as a waste disposal area for miscellaneous trash and construction debris. Before construction of I-40, this area was contiguous with AOC14 to the north. Minor amounts of nonfriable ACM, such as floor tiles and transite pipe pieces, were present in the area.

Historical soil sample results indicate metals- and D/F-contaminated soil was present within the TAA, with the greatest contaminant concentrations within 3 feet of the surface. The detailed understanding of the nature and extent of contamination at the TAA is available in the RFI/RI Report Volume 3 (Jacobs 2024a).

3.15.2 Removal Summary

Soil NTCRA activities at AOC27 TAA1 began in October 2023. The initial excavation removed contaminated soil and debris to the lateral extent of the TAA boundaries and to a depth of approximately 5 feet. While historical soil sample results indicated metal and D/F TEQ contamination exceeding the numerical RAGs was present within the TAA, field screening results and confirmation soil results at the TAA boundary were less than the numerical RAGs. However, the debris encountered throughout the TAA extended into the northwestern face of the TAA boundary (Appendix I). Presumed ACM encountered in the TAA was relocated to the TCS staging area for disposal with other wastes generated on TCS (Section 2.8.4).

DOI provided approval to conduct step-out excavations to the northwest of the TAA boundary to remove the debris in accordance with RAO 3. The step-out excavation continued to the northwest, as needed to remove debris. The step-out excavation included additional impacted soil from the excavation floor, resulting in a total excavation depth to 7 feet bgs.

Removal activities were completed in October 2023. Figure 3-15 shows the full extent of the AOC27 TAA1 excavation.

3.15.3 Contamination Summary

Contamination at AOC27 TAA1 consisted of discolored soil and debris to a depth of approximately 7 feet bgs. Minor amounts of nonfriable ACM were encountered throughout the TAA. Historical soil samples collected within the TAA detected the following compounds at concentrations exceeding the numerical RAGs (Jacobs 2024a):

- Chromium
- Copper
- Lead
- Molybdenum
- Zinc
- D/F TEQ

Discolored soil and debris were removed during the Soil NTCRA.

Additional debris, such as metal pipe, trash, and wood not associated with contamination, remains on the surface in the area beyond the TAA and was not removed during the Soil NTCRA.

3.15.4 Confirmation Soil Sampling Results

Confirmation soil samples were collected from the excavation sidewalls and floor and analyzed in accordance with the Soil NTCRA Work Plan. At AOC27 TAA1, confirmation floor samples were collected at depths of approximately 5 and 7 feet bgs. Sidewall confirmation soil samples were collected from approximately 1.5 to 4 feet bgs. Sidewall samples were collected from the approximate midpoint of the excavation when discolored soil or debris was not evident. Figure 3-15 shows the confirmation soil sample locations. Table 3-15 summarizes confirmation soil sample results.

Eight confirmation soil samples were collected from AOC27 TAA1. Confirmation soil sample results at the extent of the original TAA boundary and initially proposed excavation depth were less than the numerical RAGs.

3.15.5 Waste Management Summary

Excavated soil from AOC27 TAA1 was hauled directly to the SPY and stockpiled before waste characterization and disposal. Due to the entrained debris, mechanical separation was not conducted. Two soil stockpile samples were collected and analyzed in accordance with the waste characterization plan described in Section 2.8.1. Analytical results characterized the stockpiled soil as nonhazardous waste. Republic Services approved the waste for disposal under Profile 51242315251, along with other soil from adjacent BCW. Approximately 1,160 tons of nonhazardous waste were transported to La Paz Landfill in Parker, Arizona for disposal (Table 2-1). Presumed ACM encountered in the TAA was relocated to the TCS staging area for disposal with other wastes generated on TCS (Section 2.8.4). The waste was profiled as asbestos containing based on historical analysis of similar wastes collected from AOC27, which confirmed the presence of asbestos.

Appendix H contains the Waste Tracking Log, which summarizes the waste transportation and disposal details, and the final signed waste manifests and disposal facility weight tickets.

3.15.6 Backfill and Site Stabilization

Backfill and stabilization of the TAA was conducted to restore the MW-24 Bench access road to BCW. Well-graded AB material from Campbell's Quarry in Lake Havasu City, Arizona was used to backfill the MW-24 Bench access road area to an appropriate grade for vehicle travel into BCW. Compaction testing of the AB material was conducted to confirm placement of the soil to 90% of the maximum dry density.

Appendix I shows site conditions upon completion of the Soil NTCRA activities in November 2023.

3.16 Remaining Contamination Summary

Soil NTCRA activities were intended to remove contaminants exceeding the numerical RAGs and debris within 10 feet of the ground surface to achieve the RAOs. However, soil exceeding the numerical RAGs or debris remain in a few places associated with Soil NTCRA removals, as well as a few isolated locations outside of the Soil NTCRA removal areas because additional removal would:

- Present a hazard to workers
- Undermine critical infrastructure or utilities
- Encroach upon culturally sensitive areas

Additionally, chromium- and D/F-impacted soil exceeding the numerical RAGs remains in the floor of several TAAs at depths deeper than 10 feet bgs. Removal of contaminated material from deeper than 10 feet bgs was not conducted because the objectives of the Soil NTCRA were to remove contaminants exceeding the RAGs. The residual contaminated material is below the depth human and ecological receptors at the site could reasonably be exposed to (DOI 2021).

Table 3-16 provides a list of 17 confirmation soil samples where contaminants at concentrations exceeding the numerical RAGs remain. Table 3-16 lists the following information:

- Sample name
- Depth
- Compounds exceeded
- Rationale for not removing soil exceeding the RAGs

Additional details regarding remaining contamination are presented in the TAA-specific NTCRA summary sections. Sample locations are shown in their respective individual TAA site figures (Figure 3-1 through 3-15).

Historical RFI/RI samples outside of or beneath the TAAs may be present at concentrations greater than the RAGs; however, because they were not part of a TAA, they were outside of the scope of the Soil NTCRA. RFI/RI Report Volume 3 summarizes the nature and extent of contamination outside and below the TAAs before the Soil NTCRA (Jacobs 2024a).

3.17 Soil Samples Removed during Soil NTCRA

Soil NTCRA removal activities removed soil within the following areas:

- SWMU 1
- AOC 1
- AOC 9
- AOC 10
- AOC 11
- AOC 14
- AOC 16
- AOC 27

Numerous soil samples collected as part of the RFI/RI and reported in RFI/RI Volume 3 (Jacobs 2024a) have been removed. Table 3-17 lists the RFI/RI soil samples that have been removed. The Combined Soil RFI/RI Dataset (Jacobs 2024a) has been updated by removing these RFI/RI soil samples, adding applicable Soil NTCRA confirmation soil samples, and adjusting RFI/RI sample depths in areas where Soil NTCRA backfilling did not restore TAAs back to original ground surface elevations: AOC 10, AOC 11, and AOC 14. The updated Combined Soil RFI/RI Dataset will be used for future risk evaluations.

3.18 Updates to Conceptual Site Models

Removal activities during the Soil NTCRA provided an additional understanding of the sources, and nature and extent of contamination at several of the SWMUs and AOCs where NTCRA removal activities occurred. Detailed CSMs for each SWMU and AOC were provided in the RFI/RI Report Volume 3 (Jacobs 2024a). The CSMs provide information about:

- Sources
- Release mechanisms
- Pathways
- Exposure routes and pathways
- Potential receptors

This section summarizes the CSMs for the SWMUs and AOCs that were updated based on NTCRA findings.

The following CSMs were updated based on NTCRA findings:

- SWMU 1 and AOC1
- AOC 10
- AOC 11

No changes were made to the following CSMs:

- AOC 9
- AOC 14
- AOC 16
- AOC 27

RFI/RI Report Volume 3 discusses the CSMs for these four AOCs (Jacobs 2024a).

At AOC14, the Soil NTCRA removal activities encountered waste and debris deeper than identified in the RFI and extending to the south toward the I-40 highway shoulder. Debris was encountered at depths of up to 13 feet bgs. However, the horizontal extent of contamination beyond the Soil NTCRA excavation could not be defined to the south.

Excavation was halted at the highway shoulder to prevent undermining the highway. Additionally, excavation below approximately 5 feet of the highway grade was sloped to the north; therefore, the extent of excavation in deeper soils did not extend as far south as shallow soils. AOC14 is shown on Figure 3-16 and includes reference to the extent of contamination that may extend beneath the I-40 highway shoulder.

3.18.1 SWMU 1 Former Percolation Bed and AOC 1 Area Around Former Percolation Bed

This section describes updates to the CSM for SWMU 1 and AOC 1.

3.18.1.1 SWMU 1 and AOC 1 Conceptual Site Model

Graphical CSMs for SWMU 1 (Figure 3-16) and AOC 1 south (Figure 3-17) were developed based on site history and background, and findings reported in the RFI/RI Volume 3 (Jacobs 2024a) and have been updated with findings per the NTCRA. Exhibit 3-1 for SWMU 1 and Exhibit 3-2 for AOC 1 present the following information:

- Primary sources and COPCs
- Primary source media
- Potential release mechanisms
- Secondary source media
- Potential secondary release mechanisms
- Potential human and ecological receptors

Exhibit 3-1. Conceptual Site Model – SWMU 1

Primary Source	Primary Source Media	Potential Release Mechanism	Secondary Source Media	Potential Secondary Release Mechanism	Potential Human and Ecological Receptors
Discharge of wastewater from TCS to BCW and Former Percolation Bed. COPCs include: <ul style="list-style-type: none"> ▪ Metals ▪ CLP inorganics ▪ D/F 	Surface soil	<ul style="list-style-type: none"> ▪ Percolation or infiltration ▪ Potential entrainment in stormwater and surface water runoff 	<ul style="list-style-type: none"> ▪ Surface soil ▪ Subsurface soil ▪ Potential sediments ▪ Potential groundwater 	<ul style="list-style-type: none"> ▪ Wind erosion and atmospheric dispersion of surface soil ▪ Potential discharge of groundwater to surface water ^[b] ▪ Grading during decommissioning of Former Percolation Bed. 	Human: <ul style="list-style-type: none"> ▪ Recreational user (0 to 3 feet bgs) ▪ Tribal user (0 to 3 feet bgs) ▪ Maintenance worker (0 to 10 feet bgs) ▪ Hypothetical future groundwater user
Runoff from the following areas and activities: <ul style="list-style-type: none"> ▪ TCS ▪ Stormwater discharge ▪ I-40 ▪ AOC 4 COPCs include: <ul style="list-style-type: none"> ▪ Metals ▪ CLP inorganics ▪ PAHs ▪ TPH ▪ PCBs ▪ D/F 	Surface soil	<ul style="list-style-type: none"> ▪ Percolation or infiltration ▪ Potential entrainment in stormwater and surface water runoff 	<ul style="list-style-type: none"> ▪ Surface soil ▪ Subsurface soil ▪ Potential sediments ▪ Potential groundwater 	<ul style="list-style-type: none"> ▪ Wind erosion and atmospheric dispersion of surface soil ▪ Potential volatilization and atmospheric dispersion and enclosed space accumulation^[a] ▪ Potential discharge of groundwater to surface water ^[b] 	Ecological: <ul style="list-style-type: none"> ▪ Plants (0 to 6 feet bgs) ▪ Invertebrates (0 to 0.5 feet bgs) ▪ Birds (up to 6 feet bgs^[c]) ▪ Mammals (up to 6 feet bgs^[c])
Discharge of water treatment softener sludge to BCW COPCs include: <ul style="list-style-type: none"> ▪ CLP inorganics ▪ Metals 	Surface soil	<ul style="list-style-type: none"> ▪ Percolation or infiltration ▪ Potential entrainment in stormwater and surface water runoff 	<ul style="list-style-type: none"> ▪ Surface soil ▪ Subsurface soil ▪ Potential sediments ▪ Potential groundwater 	<ul style="list-style-type: none"> ▪ Wind erosion and atmospheric dispersion of surface soil 	

^[a] Enclosed space accumulation refers to any area where vapor can accumulate.

^[b] Discharge to surface water is an insignificant transport pathway, as evaluated in the groundwater risk assessment (Arcadis 2009).

^[c] For birds and mammals, the exposure depths are receptor-dependent.

For birds:

- Granivorous birds (0 to 6 feet bgs)
- Invertivorous and carnivorous birds (0 to 0.5 feet bgs)

For mammals:

- Granivorous/herbivorous and carnivorous mammals (0 to 6 feet bgs)
- Invertivorous mammals (0 to 0.5 feet bgs)

CLP = Contract Laboratory Program

PAH = polycyclic aromatic hydrocarbons

Exhibit 3-2. Conceptual Site Model – AOC 1

Primary Source	Primary Source Media	Potential Release Mechanism	Secondary Source Media	Potential Secondary Release Mechanism	Potential Human and Ecological Receptors
Runoff from the following areas and activities: <ul style="list-style-type: none"> ▪ TCS ▪ Storm drains ▪ I-40 ▪ AOC 4 ▪ SWMU 1 ▪ AOC-27 ▪ Potentially AOC 14 ▪ Grading during decommissioning of Former Percolation Bed COPCs include: <ul style="list-style-type: none"> ▪ Metals ▪ CLP inorganics ▪ PAHs ▪ TPH ▪ PCBs ▪ D/F 	<ul style="list-style-type: none"> ▪ Surface soil 	<ul style="list-style-type: none"> ▪ Percolation or infiltration ▪ Potential entrainment in stormwater and surface water runoff 	<ul style="list-style-type: none"> ▪ Surface soil ▪ Subsurface soil ▪ Potential sediment ▪ Potential groundwater 	<ul style="list-style-type: none"> ▪ Wind erosion and atmospheric dispersion of surface soil ▪ Potential volatilization and atmospheric dispersion ▪ Potential discharge of groundwater to surface water ^[a] 	Human: <ul style="list-style-type: none"> ▪ Recreational user (0 to 3 feet bgs) ▪ Tribal user (0 to 3 feet bgs) ▪ Maintenance worker (0 to 10 feet bgs) ▪ Hypothetical future groundwater user Ecological: <ul style="list-style-type: none"> ▪ Plants (0 to 6 feet bgs) ▪ Invertebrates (0 to 0.5 feet bgs) ▪ Birds (up to 6 feet bgs^[b]) ▪ Mammals (up to 6 feet bgs^[b])
Discharge of wastewater and water-softener sludge from TCS to BCW and TCS-4 COPCs include: <ul style="list-style-type: none"> ▪ Metals ▪ CLP inorganics 	<ul style="list-style-type: none"> ▪ Surface soil ▪ Subsurface soil 	<ul style="list-style-type: none"> ▪ Percolation or infiltration ▪ Potential entrainment in stormwater and surface water runoff 	<ul style="list-style-type: none"> ▪ Surface soil ▪ Subsurface soil ▪ Potential sediment ▪ Potential groundwater 	<ul style="list-style-type: none"> ▪ Wind erosion and atmospheric dispersion of surface soil ▪ Potential discharge of groundwater to surface water ^[a] ▪ Potential wastewater injection to groundwater 	

^[a] Discharge to surface water is an insignificant transport pathway, as evaluated in the groundwater risk assessment (Arcadis 2009).

^[b] For birds and mammals, the exposure depths are receptor-dependent.

For birds:

- Granivorous birds (0 to 6 feet bgs)
- Invertivorous and carnivorous birds (0 to 0.5 feet bgs)

For mammals:

- Granivorous/herbivorous and carnivorous mammals (0 to 6 feet bgs)
- Invertivorous mammals (0 to 0.5 feet bgs)

For both SWMU 1 and AOC 1, the primary sources of contamination are as follows:

- Historical direct discharge of untreated chromium-bearing wastewater into BCW, the Former Percolation Bed (SWMU 1), and well TCS-4
- Potential overflow or discharges from the SWMU 1 percolation bed
- Discharges from the former injection well TCS-4
- Discharge of water-softener treatment sludge, as evidenced by white powder on the eastern side of SWMU 1 at NTCRA area SMWU 1 TAA2

Based on observations and findings from the NTCRA, it appears materials from the Former Percolation Bed were likely graded onto the hillside to the east. Soil removal was expanded along the eastern side of SWMU1 TAA1 and around AOC1 TAA3 due to exceedances of the RAGs across the hillside below the I-2 pipeline access road from TCS to BCW.

The extent of removal in and around former injection well TCS-4 (AOC1 TAA2) was more extensive than planned. Greenish-gray contaminated soil exceeding the RAGs extended laterally south and east from AOC1 TAA2. Material exceeding the RAGs was removed, except in areas that were inaccessible or unsafe for removals, as described in Section 3.5.

D/F exceeded the RAGs at up to 5 feet bgs in AOC1 TAA1, adjacent to the I-40 culvert. This area is downstream from SWMU 1 and AOC 1, former injection well TCS-4, and AOC 27, which are likely sources of dioxins for this TAA. It is also an area that receives stormwater runoff directly from I-40, which may also be a minor source of D/F in this area.

Based on observations and findings from the NTCRA, it appears the source of white powder observed at SWMU1 TAA2 at the base of the hillside below TCS likely originated from SWMU 5, Sludge Drying Beds and AOC 21, Round Depression near Sludge Drying Bed. During excavation of SWMU1 TAA2, the layer of white material was observed sloping upward from the bottom of the slope. The white material is likely water-softener treatment sludge. The white material and soil exceeding the RAGs were removed.

Other potential primary sources of contamination remain the same and include the following:

- There were incidental spills and stormwater runoff from the western side of TCS, including from storm drains and sheet flow.
- Stormwater runoff from AOC 14 north of I-40 may have contributed to wear metals from machinery and vehicles, PAHs, and D/F contamination in BCW.
- Contamination released from debris and burn material located at AOC 27 could potentially have been transported to the lower portions of AOC 1, near AOC1 TAA 1 through surface runoff.
- Discharge from the Debris Ravine (AOC 4) may be partly responsible for contamination at AOC 1 South and SWMU 1; contamination in fill, debris, and surface soil at AOC 4 could have been entrained in surface water runoff and deposited in portions of AOC 1 and SWMU 1.
- Stormwater runoff from I-40 and the railroad from culverts discharging to BCW could have resulted in the release of the following compounds into AOC 1 adjacent to and north of these transportation routes:
 - Lead
 - PAHs
 - TPH
 - Wear metals and galvanized coatings

Surface and shallow soils are the primary source media. From surface soil, contaminants could have migrated to both shallow and deeper soils. Shallow soil may act as a secondary source medium to subsurface soil, and subsurface soil may act as a secondary source medium to groundwater. Removal of approximately 20,000 yd³ of impacted soil from SWMU1 and AOC 1 significantly reduces the secondary source medium to groundwater.

Other potential secondary sources of contamination, which are not included in Exhibits 3-1 and 3-2 are as follows:

- Contributions of D/F and PAH contamination may also be related to the following activities in the vicinity of BCW:
 - Historical dumping
 - Burning of garbage
 - Wildfires
 - Vehicle and locomotive exhaust
 - Military activities
- Runoff from the former Workman's Roadhouse and service station, a vehicle maintenance shop, may have contributed to TPHs, PAHs, and metals contamination near the mouth of BCW.

These secondary sources are less likely to have been a substantial source of contamination in the wash based on site data collected to date.

3.18.2 AOC 10 – East Ravine

This section describes updates to the CSM for AOC 10.

3.18.2.1 AOC 10 Conceptual Site Model

Figure 3-18 provides a graphical CSM for AOC 10 based on the site history and background, and findings reported in the RFI/RI Volume 3 (Jacobs 2024a). The CSM for AOC 10 was updated with findings per the Soil NTCRA, and was presented in RFI/RI Volume 3. Exhibit 3-3 presents the CSM in its entirety and provides the following information for AOC 10:

- Primary sources
- Primary source media
- Potential release mechanisms
- Secondary source media
- Potential secondary release mechanisms
- Potential human and ecological receptors

Exhibit 3-3. Conceptual Site Model – AOC 10

Primary Source	Primary Source Media	Potential Release Mechanism	Secondary Source Media	Potential Secondary Release Mechanism	Potential Human and Ecological Receptors
Runoff from TCS, TCS access road, and AOC 9 COPCs include: <ul style="list-style-type: none"> ▪ Metals ▪ PCBs ▪ PAHs ▪ D/F 	<ul style="list-style-type: none"> ▪ Surface soil 	<ul style="list-style-type: none"> ▪ Percolation or infiltration ▪ Potential entrainment in stormwater and surface water runoff 	<ul style="list-style-type: none"> ▪ Surface soil ▪ Subsurface soil ▪ Potential groundwater 	<ul style="list-style-type: none"> ▪ Wind erosion and atmospheric dispersion of surface soil ▪ Potential volatilization and atmospheric dispersion, and enclosed space accumulation^[a] ▪ Potential discharge of groundwater to surface water ^[b] 	<p>Human:</p> <ul style="list-style-type: none"> ▪ Recreational user (0 to 3 feet bgs) ▪ Tribal user (0 to 3 feet bgs) ▪ Maintenance worker (0 to 10 feet bgs) ▪ Hypothetical future groundwater user <p>Ecological:</p> <ul style="list-style-type: none"> ▪ Plants (0 to 6 feet bgs) ▪ Invertebrates (0 to 0.5 feet bgs) ▪ Birds (up to 6 feet bgs^[c]) ▪ Mammals (up to 6 feet bgs^[c])
Incidental overflows of chromium-containing cooling water from the former trench drain COPCs include: <ul style="list-style-type: none"> ▪ Metals 	<ul style="list-style-type: none"> ▪ Surface soil 	<ul style="list-style-type: none"> ▪ Percolation or infiltration ▪ Potential entrainment in stormwater and surface water runoff 	<ul style="list-style-type: none"> ▪ Surface soil ▪ Subsurface soil ▪ Potential groundwater 	<ul style="list-style-type: none"> ▪ Wind erosion and atmospheric dispersion of surface soil ▪ Potential discharge of groundwater to surface water ^[b] 	
Discharge from TCS stormwater drains COPCs include: <ul style="list-style-type: none"> ▪ Metals ▪ PCBs ▪ PAHs ▪ D/F 	<ul style="list-style-type: none"> ▪ Surface soil 	<ul style="list-style-type: none"> ▪ Percolation or infiltration ▪ Potential entrainment in stormwater and surface water runoff 	<ul style="list-style-type: none"> ▪ Surface soil ▪ Subsurface soil ▪ Potential groundwater 	<ul style="list-style-type: none"> ▪ Wind erosion and atmospheric dispersion of surface soil ▪ Potential volatilization and atmospheric dispersion, and enclosed space accumulation^[a] ▪ Potential discharge of groundwater to surface water ^[b] 	
Disposal of debris COPCs include: <ul style="list-style-type: none"> ▪ Metals ▪ PCBs ▪ PAHs 	<ul style="list-style-type: none"> ▪ Surface soil 	<ul style="list-style-type: none"> ▪ Percolation or infiltration ▪ Potential entrainment in stormwater and surface water runoff 	<ul style="list-style-type: none"> ▪ Surface soil ▪ Subsurface soil ▪ Potential groundwater 	<ul style="list-style-type: none"> ▪ Wind erosion and atmospheric dispersion of surface soil ▪ Potential volatilization and atmospheric dispersion, and enclosed space accumulation^[a] ▪ Potential discharge of groundwater to surface water ^[a] 	

^[a] Enclosed space accumulation refers to any area where vapor can accumulate.

^[b] Discharge to surface water is an insignificant transport pathway as evaluated in the groundwater risk assessment (Arcadis 2009).

^[c] For birds and mammals, the exposure depths are receptor-dependent.

For birds:

- Granivorous birds (0 to 6 feet bgs)
- Invertivorous and carnivorous birds (0 to 0.5 feet bgs)

For mammals:

- Granivorous/herbivorous and carnivorous mammals (0 to 6 feet bgs)
- Invertivorous mammals (0 to 0.5 feet bgs)

Yellow arrows shown on Figure 3-18 represent flow within the East Ravine, and blue arrows represent surface water flow into the East Ravine.

For AOC 10, the primary potential sources of contamination are:

- Discharge and runoff from TCS, the access road to TCS, and AOC 9
- Discharge from stormwater drainpipes
- Surface debris disposed of on the slopes of the ravine
- Incidental overflows of chromium-containing hotwell (AOC 19) cooling water from the former trench drain at the top of the TCS access road

Releases would primarily have been in liquid form and would have affected surface soil. Releases from debris, whether consisting of solid particles or dissolved constituents, would also have affected surface soil. The greatest concentrations of contaminants generally occur along the slope in surface soil near the TCS fence line and in surface and subsurface soils along the ravine flow path. COPCs in surface soil may be eroded and entrained in stormwater and surface water runoff and subsequently redeposited as contaminated soil in other downgradient areas. At AOC 10, this migration may result in COPCs at the top of the hillside migrating down the hillside and continuing down the flow path of East Ravine.

Exceedances are described as follows:

- The presence of the following contaminants at AOC 10 is likely related to the release of cooling water from the former trench drain:
 - Cr(VI)
 - Chromium
 - Molybdenum
- The presence of wear metals is likely related to runoff from TCS, the access road, and stormwater discharge, and to the disposal of debris on the ravine slopes, for example:
 - Pieces of metal
 - Cans
 - Tires
 - Concrete rubble
 - Tiles
 - Bricks

This debris includes the following contaminants:

- Wear metals:
 - Zinc
 - Copper
 - Nickel
 - Lead
 - PAHs
 - TPH
 - PCBs
- Mercury contamination at AOC 9 may have migrated to AOC 10 from runoff.
 - The primary source of D/F at the site is residuals from apparent historical burning of TCS waste. The association of D/F with chromium suggests they may also be derived from historical discharges of wastewater into East Ravine.

The following three soil samples collected in the areas of white material along the northern slope of the ravine did not show elevated concentrations of metals consistent with the metals detected in the white powder samples collected between Subareas 10c and 10d:

- AOC10-13
- AOC10-14
- AOC10-17

This indicates the white material along the northern slope of the ravine did not contribute to surface soil contamination in this area. The white material along the northern slope of the ravine is located in an area where white material appeared after a heavy rain. It seems to be a natural material, possibly an evaporite deposit. This white material is ephemeral in nature. No elevated concentrations of chromium were detected in these three samples.

DTSC observed and sampled powder that was pure white and poorly indurated that they believed was white water-softener sludge in samples such as:

- DTSC-AOC10d-1
- DTSC-AOC10d-2
- DTSC-AOC10d-3

These samples were located at the base of the wash and may be water-softener sludge transported to AOC 10 by overland flow. White powder transport via overland flow may be supported by the presence of a white debris layer from 2.5 feet to 2.6 feet bgs at AOC9-22 and a layer of white powder near the base of the AOC 9 slope found during installation of groundwater remedy pipelines. The elevated concentrations of chromium and other metals in the white powder could be from being exposed to chromium-containing releases from the hotwell (AOC 19).

Findings from the NTCRA removal activities within East Ravine indicate discharges of waste material to East Ravine occurred. White layers of material, assumed to be water-softener sludge, were encountered within the ravine bottom from Subarea AOC10b to AOC10d, indicating releases likely occurred before the berm at AOC10c was built. Interbedded white and greenish layers of impacted soil of varying thickness were encountered in soil within Subarea AOC10c, behind the berm, indicating there was likely repeated discharge of waste materials after berm construction.

Discharge to East Ravine appears to emanate from a drainpipe on the eastern side of TCS, as shown in a 1965 aerial photograph (Jacobs 2024a). The source of D/F within East Ravine is not known with certainty, but the association with chromium suggests they may be derived from historical discharges of wastewater into East Ravine.

Surface soil is the primary source medium. From surface soil, contaminants could have migrated to shallow and deeper soils; shallow soil may act as a secondary source medium to subsurface soil, and subsurface soil may act as a secondary source medium to groundwater. Periodic rainfall events and runoff to the East Ravine would have pooled in the drainage depressions identified as Subareas 10b, 10c, and 10d. In these subareas, contaminants could potentially be driven deeper and could potentially reach groundwater. In other words, accumulation behind berms may have resulted in enhanced infiltration.

The chromium distribution in East Ravine bedrock likely resulted from Cr(VI) in water that ponded in East Ravine. The ponded water could have infiltrated through the alluvium beneath the ponds and into fractures in the underlying bedrock. The head in the ponds would have been 60 to 80 feet higher than the head in the fractures, so the infiltrating water would have sufficient driving force to displace the water in the fractures, spreading Cr(VI) through the fracture network. Because the volume of the water in the fracture network is small, a relatively short period of ponding could have provided a sufficient volume of

water to displace the groundwater in a large network of bedrock fractures (CH2M 2013). The analytical results for AOC 10 do not support evidence of a release of VOCs or that VOCs have been degraded by heat and light over time.

A secondary source may also include contaminated windblown dust. For AOC 10, windblown dust contamination, either from AOC 9 or other areas of East Ravine, could have been deposited in the ravine or on shallow portions of the banks of the ravine. Windblown contamination, if any, is expected to be limited to surface soil.

AOC 10 was a likely source of historical groundwater contamination based on the following factors:

- Known releases to East Ravine of chromium-containing jacket cooling water from the hotwell (AOC 19)
- The presence of impoundments that could drive contamination deep into the subsurface
- The presence of chromium in East Ravine bedrock
- Chromium concentrations in groundwater

Because of the berms within East Ravine, surface flow to the Colorado River is not considered a significant potential migration pathway. One berm, the lower dirt road berm associated with historic Route 66, was constructed before the development of TCS. The berm associated with the Southern California Gas pipeline road was constructed in the late 1950s or early 1960s, after TCS was built (Jacobs 2024a). Although a culvert exists in the lower dirt road berm, COPC concentrations east of this road are low, and there are no reports of flow through the culvert from the upper East Ravine. Cr(VI) was not detected, and chromium was less than background in the soil sample immediately east of the lower dirt road berm (Jacobs 2024).

3.18.3 AOC 11 – Topographic Low Areas

This section describes updates to the CSM for AOC 11.

3.18.3.1 AOC 11 Conceptual Site Model

Figure 3-19 is a graphical CSM developed for AOC 11 based on the site history, background, and findings reported in the RFI/RI Volume 3 (Jacobs 2024a). The CSM for AOC 11 presented in RFI/RI Volume 3 was already updated with findings per the NTCRA and is presented below in its entirety. Exhibit 3-4 presents the following information for AOC 11:

- Primary sources
- Primary source media
- Potential release mechanisms
- Secondary source media
- Potential secondary release mechanisms
- Potential human and ecological receptors

The primary sources of contamination to AOC 11 are:

- Runoff and discharge from TCS
- Runoff from the access road to TCS
- Runoff from the Transwestern Meter Station area
- Runoff from I-40

Exhibit 3-4. Conceptual Site Model – AOC 11

Primary Source	Primary Source Medium	Potential Release Mechanism	Secondary Source Media	Potential Secondary Release Mechanism	Potential Human and Ecological Receptors
Runoff from the following areas: <ul style="list-style-type: none"> ▪ TCS ▪ TCS access road ▪ Transwestern Meter Station area ▪ I-40 COPCs include: <ul style="list-style-type: none"> ▪ Metals ▪ PCBs ▪ PAHs 	<ul style="list-style-type: none"> ▪ Surface soil 	<ul style="list-style-type: none"> ▪ Percolation or infiltration ▪ Potential entrainment in stormwater and surface water runoff 	<ul style="list-style-type: none"> ▪ Surface soil ▪ Subsurface soil ▪ Potential groundwater 	<ul style="list-style-type: none"> ▪ Wind erosion and atmospheric dispersion of surface soil ▪ Potential volatilization and atmospheric dispersion ▪ Potential discharge of groundwater to surface water ^[a] 	Human: <ul style="list-style-type: none"> ▪ Recreational user (0 to 3 feet bgs) ▪ Tribal user (0 to 3 feet bgs) ▪ Maintenance worker (0 to 10 feet bgs) ▪ Hypothetical future groundwater user Ecological: <ul style="list-style-type: none"> ▪ Plants (0 to 6 feet bgs) ▪ Invertebrates (0 to 0.5 feet bgs) ▪ Birds (up to 6 feet bgs^[b]) ▪ Mammals (up to 6 feet bgs^[b])
Discharge from TCS stormwater drains COPCs include: <ul style="list-style-type: none"> ▪ Metals ▪ Cr(VI) ▪ Chromium 	<ul style="list-style-type: none"> ▪ Surface soil 	<ul style="list-style-type: none"> ▪ Percolation or infiltration ▪ Potential entrainment in stormwater and surface water runoff 	<ul style="list-style-type: none"> ▪ Surface soil ▪ Subsurface soil ▪ Potential groundwater 	<ul style="list-style-type: none"> ▪ Wind erosion and atmospheric dispersion of surface soil ▪ Potential discharge of groundwater to surface water ^[a] 	
Disposal of debris COPCs include: <ul style="list-style-type: none"> ▪ Metals ▪ PCBs ▪ PAHs 	<ul style="list-style-type: none"> ▪ Surface soil 	<ul style="list-style-type: none"> ▪ Percolation or infiltration ▪ Potential entrainment in stormwater and surface water runoff 	<ul style="list-style-type: none"> ▪ Surface soil ▪ Subsurface soil ▪ Potential groundwater 	<ul style="list-style-type: none"> ▪ Wind erosion and atmospheric dispersion of surface soil ▪ Potential volatilization and atmospheric dispersion ▪ Potential discharge of groundwater to surface water ^[a] 	
Burned material COPCs include: <ul style="list-style-type: none"> ▪ D/F 	<ul style="list-style-type: none"> ▪ Surface Soil 	<ul style="list-style-type: none"> ▪ Percolation or infiltration ▪ Potential entrainment in stormwater and surface water runoff 	<ul style="list-style-type: none"> ▪ Surface soil ▪ Subsurface soil 	<ul style="list-style-type: none"> ▪ Wind erosion and atmospheric dispersion of surface soil 	

^[a] Discharge to surface water is an insignificant transport pathway, as evaluated in the groundwater risk assessment (Arcadis 2009).

^[b] For birds and mammals, the exposure depths are receptor-dependent.

For birds:

- Granivorous birds (0 to 6 feet bgs)
- Invertivorous and carnivorous birds (0 to 0.5 feet bgs)

For mammals:

- Granivorous/herbivorous and carnivorous mammals (0 to 6 feet bgs)
- Invertivorous mammals (0 to 0.5 feet bgs)

Multiple storm drains discharge to this area, and several former storm drains are believed to have discharged to this area in the past. Cooling water may have initially been released to AOC 11 through the storm drain system. Apparent historical discharges from TCS conveyed by storm drains were impounded behind the check berm at AOC11 TAA1 (AOC 11e). Several thin layers of white powder, assumed to be water-softener sludge, and rust-colored oxidized lenses of material encountered within AOC11 TAA1 contained elevated concentrations of metals and D/F.

Sheet flow surface runoff from TCS could also have entered this unit from areas where the edge of TCS lacked curbs. Potential releases from railroad debris on the slope below the TCS access road may also contribute to contamination at AOC 11 from the following types of debris observed during 2008 field activities:

- Asphalt
- A metal sign
- Ceramic plates
- Glass resistors
- Concrete

The presence of the following analytes may be related to runoff from TCS and access road and stormwater discharge:

- Wear metals, including:
 - Copper
 - Zinc
 - Lead
- PAHs
- PCBs

The presence of the following analytes may be related to the potential release of cooling water from the storm drain system:

- Cr(VI)
- Chromium
- Molybdenum

The distribution of contamination at the site is consistent with drainage and stormwater flows from TCS.

The source of D/F at AOC 11e is not known with certainty, but the association with the layered deposits suggests they were derived from the historical discharges of wastewater.

Stormwater runoff from I-40 could have also resulted in the release of the following analytes into AOC 11, especially the AOC Subarea 11a, that are not a result of TCS activities:

- PAHs
- Lead
- Wear metals and galvanized coatings, including:
 - Barium
 - Chromium
 - Copper
 - Nickel
 - Zinc

Runoff from the various potential source areas would have discharged to surface soil and collected in low areas within the AOC. Therefore, the primary source medium is surface soil. From surface soil, contaminants could have migrated to both shallow and deeper soil. Shallow soil may act as a secondary source medium to subsurface soil, and subsurface soil may act as a secondary source medium to groundwater. After storm events, water pools in AOC 11a (the largest topographic low area) and does not readily infiltrate. Historically, water may have also pooled behind the two check berms in AOC 11c and AOC 11e.

Although these structures have been breached and no longer retain water, accumulated fine-grained soil is present behind the berm at AOC 11c. Laterally, COPCs or COPECs in soil would generally be expected to be limited to the area along the topographic drainages. Except for Subarea 11g, all low points within this unit are terminal low points, and flow cannot exit the AOC 11 area. At these low points, contaminants could potentially be driven deeper and could potentially reach groundwater; however, migration to groundwater has been ruled out by vadose zone modeling.

The analytical results for AOC 11 do not support evidence of a release of VOCs or that VOCs have been degraded by heat and light over time. Runoff down the TCS access road periodically reaches Subarea 11g. A significant volume of flow may result in runoff over the Subarea 11g bank and down the slope toward the Colorado River.

COPCs in surface soil may also be eroded and entrained in stormwater and surface water runoff and subsequently redeposited as contaminated soil in other downgradient areas. At AOC 11, this migration may result in COPCs at the top of the hillside near the TCS fence line or the vicinity of the Transwestern Station migrating to various subareas within AOC 11. For example, migration could occur from TCS to AOC 11e, AOC 11c, and AOC 11a, or from the TCS access road to AOC 11g, and continuing down the slope toward the Colorado River (Figure 3-19).

Another potential source of contamination to AOC 11 may also include contaminated windblown dust. Contaminated surface soil (either within AOC 11 or from the adjacent TCS) may have been eroded by wind and deposited at the ground surface within AOC 11.

4. Postconstruction Activities

Soil NTCRA activities at the individual TAAs were completed in April 2024 and included:

- Post-stockpile confirmation soil sampling within the SPY
- BCW surface restoration
- Decommissioning of the BMPs, equipment, and personnel
- Closeout inspections

Revegetation of areas disturbed during the Soil NTCRA will be conducted following completion of remedy construction. A Revegetation Work Plan is being prepared and will be submitted to DOI, DTSC, HNWR, and Tribal Representatives for review and comment.

4.1 Post-stockpile Confirmation Soil Sampling

Upon removal of stockpiled soil at the SPY, confirmation soil samples were collected from the ground surface in the locations of the former stockpiles. Sampling was conducted to confirm that stockpile contents had been removed and that soil beneath the former stockpiles is not impacted by Soil NTCRA activities.

Post-stockpile confirmation sampling was only conducted at the SPY. Post-stockpile confirmation soil sampling was not conducted at the TWB soil staging area because the ground surface in this area is concrete, and wastes at TWB were stored in sealed containers.

The Soil NTCRA Work Plan initially proposed a five-point composite sample for every 10,000 ft² of former stockpile base. Samples were to be analyzed by the following methods:

- Metals:
 - EPA Method SW6010B for the following metals:
 - Chromium
 - Copper
 - Lead
 - Molybdenum
 - Zinc
 - EPA Method SW7471A for mercury
 - EPA Method SW7199/SW3060A for Cr(VI)
- D/F expressed as tetrachlorodibenzo-p-dioxin toxic equivalents by EPA Method SW8290

4.1.1 Post-stockpile Confirmation Soil Sampling Plan Revisions

On February 8, 2024, PG&E submitted a letter to DOI providing additional sampling plan details for post-stockpiling confirmation soil sampling at the Upper and Lower SPY (Appendix A). The plan proposed 16 sampling units of approximately 10,000 ft² each in accordance with the sampling methods in the Soil NTCRA Work Plan. Asbestos analysis was added to the sampling approach due to the stockpiling of wastes from AOC14. While DOI approved the February 8, 2024 sampling approach, additional revisions were warranted to allow for smaller sampling units within the SPY.

On February 27, 2024, PG&E submitted a revised sampling plan (Appendix A) that proposed smaller sampling units to provide increased sampling frequency, which is a more conservative approach than

required in the Soil NTCRA Work Plan. The revised post-stockpile sampling approach divided the Upper and Lower SPY into 29 sampling units rather than 16 sampling units originally proposed and approved.

The Lower SPY was divided into 22 sampling units. A subset of the sampling units in the Lower SPY represents each of the 15 designated stockpile stalls areas delineated by concrete block walls. Stall 6 on the northeast of the Lower SPY was split into Stall 6 North, LowerSPY-PS6N-2024, and Stall 6 South, LowerSPY-PS6S-2024, due to its large size.

In addition to the 15 designated stockpile stall units, the stockpile area in the northwest of the Lower SPY was designated as Stall 16, LowerSPY-PS16-2024. The area in the center of the Lower SPY, used for truck access and soil screening operations, was divided into five sampling units, LowerSPY-PS17-2024 through LowerSPY-PS21-2024. These resulting sampling units ranged in size from approximately 500 to 8,000 ft².

The Upper SPY confirmation sampling approach was unchanged, and the area was evenly divided into 7 approximately 10,000 ft² sampling units. Figure 4-1 presents the SPY post-stockpile confirmation soil sampling units.

On April 1, 2024, PG&E requested clarification from DOI with regards to the screening criteria for post-stockpile confirmation soil sample results (Appendix A). As described in the February 8, 2024, Post-Stockpile Confirmation Soil Sampling Plan (Appendix A), analytical data from samples collected within the SPY would be compared to both the Topock soil background concentrations (CH2M 2009a) and the results of baseline soil samples collected in September 2018 and 2022 (Jacobs 2023). However, baseline samples at the SPY were not analyzed for D/F.

Given that the SPY remains an active soil management area for the groundwater remedy, PG&E proposed that the approved Topock Groundwater Remedy SMP soil management levels be used in place of the absent baseline and 2017 background concentrations for D/F TEQ (Jacobs 2019b). The soil management levels are used to determine whether soil can be reused onsite. The levels for D/F TEQ are risk-based levels and considered reasonable and appropriate for SPY restoration goals. PG&E proposed the use of the lowest 2022 soil management D/F TEQ concentration of 83 ng/kg (human). On April 2, 2024, DOI approved the screening criteria presented in Table 4-1 (Appendix A).

4.1.2 Post-stockpile Confirmation Soil Sampling Results

Post-stockpile confirmation soil sampling began in late February 2024 as sampling units were cleared of stockpiles. Before sample collection, the sampling units were scraped to remove approximately 3 to 6 inches of soil. The scraped soil was stockpiled for waste characterization and offsite disposal. Once scraped, 5-point composite samples were collected and submitted for laboratory analysis in accordance with the approved plan. Appendix E provides the analytical laboratory reports.

If the results of the initial sample were less than the screening criteria, then the stall was considered clean. If the results exceeded the screening criteria, then additional soil was scraped from the sampling unit. The subsequent quantity of soil removed varied from an additional 2 to 6 inches based on sample results and understanding of the sampling unit's use. Several sampling units required multiple rounds of sampling and additional soil removal.

Table 4-1 presents the post-stockpile confirmation soil sample results. The sample depths shown in the table are an estimate of the total thickness of material removed from sampling units before sampling. Sample locations where additional excavation was conducted are marked as "Removed." Sample locations where results were less than the screening criteria are marked as "In-Place" and represent the surface soil

conditions at the end of the Soil NTCRA. Contaminant concentration exceeded the screening criteria at three sample locations marked as In-Place:

- 1) LowerSPY-PS13-2024 had an initial slight exceedance for Cr(VI) and was over-excavated. The subsequent Cr(VI) result was less than the screening criteria, but chromium increased to slightly greater than the screening criteria. No additional excavation was conducted at this location. The chromium concentrations are less than the Topock SMP's Table 2.4-1 screening level of 57 mg/kg.
- 2) UpperSPY-PS6-2024 only exceeded the copper screening level of 16.8 mg/kg by 0.02 mg/kg. No additional excavation was conducted at this location.
- 3) UpperSPY-PS-7-2024 had an initial exceedance for copper, with an anomalous concentration of 57 mg/kg. The sampling unit was resampled, and the subsequent copper concentration was 14 mg/kg and less than the screening criteria of 16.8 mg/kg. No additional excavation was conducted at this location.

On May 20, 2024, PG&E received the final post-confirmation soil sample results. With these exceptions, sample results were less than the screening criteria, and the Soil NTCRA field implementation was considered complete.

4.2 Bat Cave Wash Surface Restoration

Upon completion of Soil NTCRA activities in BCW, the ground surface was restored to its preconstruction conditions to the extent practicable. In preparation for the restoration effort, PG&E conducted a desktop delineation of the main channel by reviewing preconstruction documentation, including:

- The *Wetlands and Waters of the US, Final Delineation for the Topock Compressor Groundwater Remediation Project* (CH2M 2014c) of the project area that includes a waters of the United States' delineation of the wash
- LIDAR images from 2018 flown before Groundwater Remedy Project construction activities
- LIDAR surveys before Soil NTCRA construction activities
- Preconstruction photos taken before Soil NTCRA construction activities

The desktop delineation of the main channel was reviewed in the field before beginning restoration activities to confirm that it aligned with existing, undisturbed sections of BCW. Restoration activities included:

- The main channel was graded up to 10 inches below the existing backfill grade for a 20-foot width. Graded material was deposited outside the waters of the United States' high-water mark to create a bank from the edge of the channel bed. Additional graded material was spread out from the bank within the previously disturbed area. A 20-foot channel width was selected instead of the actual channel width, which varied from 15 to 80 feet in the disturbed areas of the wash to allow the wash to naturally restore over time.
- Backfill material deposited to support construction adjacent to the waters of the United States was removed and redeposited in other areas adjacent to the waters of the United States to mimic preconstruction topography.
- Large rocks generated from mechanical screening of excavated material from BCW were placed sporadically throughout the waters of the United States' disturbed areas in and out of the main restored channel.

Appendix I provides post-removal photographs of TAAs in BCW.

4.3 Demobilization

Upon the completion of Soil NTCRA field activities, all equipment, materials, and personnel were demobilized from the site. Stormwater BMPs were removed, and the work areas returned to their preconstruction condition to the extent practicable.

4.4 Closeout Inspections

After the Soil NTCRA work identified in each ERTC was complete, a walkdown of each work area was conducted with the following entities:

- Agencies
- Landowners and land managers
- PG&E
- NTCRA Contractors

Consistent with past site practices, the Tribes were also invited to participate in the walkdown. Punchlist items, if any, were noted during the walk and completed before closeout of the ERTC. Closeout inspections were grouped based on their respective ERTCs, as described in the following subsections.

4.4.1 ERTC No. 1 – Soil Sampling and Removal Action at AOC9 TAA1, AOC10 TAAs 1-4, and AOC11 TAA1

On July 13, 2023, a site walk of AOC10 TAA2 and AOC11 TAA1 was conducted with Representatives from the following entities in attendance:

- DOI
- DTSC
- HNWR
- PG&E
- The Tribes

A summary of the walk was sent on the same day; punch list items were identified and resolved by August 16, 2023.

On August 23, 2023, a site walk of AOC10 TAA3 and AOC10 TAA4 was conducted with Representatives from the following entities:

- HNWR
- PG&E
- The Tribes

A summary of the walk was sent on August 24, 2023; no punch list items were identified.

On March 6, 2024, a site walk of AOC9 TAA1 and AOC10 TAA1 was conducted with Representatives from the following entities:

- DOI
- DTSC
- HNWR
- PG&E
- The Tribes

Punchlist items were identified and resolved by April 17, 2024.

4.4.2 ERTC No. 2 – Soil Removal Action at AOC1 TAAs (except TAA1), SWMU1 TAAs, AOC27

On March 6, 2024, a site walk of the ERTC Number (No.) 2 sites was conducted with Representatives from the following entities:

- DOI
- DTSC
- PG&E
- The Tribes

Punchlist items were identified and resolved by April 17, 2024. Additional non-punch list item will be addressed after completion of remedy construction; the Tribes requested the BCW access route be treated and covered with loose-type material to best replicate the natural color of the wash. This is not intended to alter the functionality of the access road.

4.4.3 ERTC No. 3 – Soil Removal Action at AOC1 TAA1 and AOC14

ERTC No. 3 is associated with Soil NTCRA activities for AOC1 TAA1 and AOC14 TAA1 on Caltrans right-of-way. Therefore, closeout of ERTC No. 3 was dependent on closeout of Caltrans Encroachment Permit 0822NUT0838.

On February 28, 2024, a meeting occurred with the following individuals:

- Martin Morris of Caltrans
- David Diaz of PG&E
- A Representative of Jacobs, the Soil NTCRA contractor

No issues or punch list items were identified, and the permit was closed.

As requested, PG&E provided Caltrans with copies of the following:

- Signed completion inspection record sent on February 28, 2024
- Pre- and postconstruction photos sent by WeTransfer
- Information about the remaining contamination at AOC14 TAA1 and AOC1 TAA1 described in Section 3.16

The requested information was also provided to DOI Representative Veronica Dickerson and DTSC Representatives Aaron Yue and Chris Ioan.

4.4.4 ERTC No. 4 – Soil Removal Action at AOC16 Inside TCS

On November 30, 2024, a site walk of AOC16 TAA1 was conducted by PG&E and the Soil NTCRA contractor. No punch list items were identified.

4.4.5 SPY Closeout Inspection

On May 24, 2024, PG&E notified CWG that the final analytical results were received from the post-stockpile confirmation sampling at the SPY (Section 4.1.2). The results were less than approved screening levels; therefore, they signified the completion of last phase of Soil NTCRA field work.

5. Soil NTCRA Summary

The Soil NTCRA was conducted between July 2022 and May 2024 in accordance with the Soil NTCRA Work Plan (Jacobs 2022a) and approved variances, as described herein. The removal action achieved the RAOs (Exhibit 1-1) by removing soil and debris with contaminant concentrations exceeding the RAGs from federal land or locations where constituents had the potential to migrate to federal land, with limited exceptions, as described in Section 3.16.

RAO 1 was satisfied by removing soil at the following RFI/RI locations identified as driving risk in the HHERA.

- Protection of potential human recreators: Four total locations for the 0-foot to 3-foot bgs depth interval:
 - SWMU1-25
 - AOC 10-20
 - #10
 - MW-58BR_S
- Protection of desert shrew: Up to seven total locations for the 0-foot to 0.5-foot bgs depth interval:
 - SWMU1-25
 - PA-20
 - AOC 10-23
 - PA-21
 - AOC 10c-4
 - AOC 10-20
 - AOC 10-21

Risk calculations are currently being performed using the updated Combined Soil Dataset. An updated HHERA is being prepared and will confirm whether the residual 95UCL of the mean concentration for the potential exposure area is less than or equal to the RBRGs.

RAO 2 was met by removing soil up to 10 feet bgs in the TAAs, collecting confirmation soil samples and comparing the RAGs. Soil removal was complete when contaminant concentrations were less than the RAGs.

RAO 3 was met by removing debris, burnt material, and discolored soil associated with elevated hazardous substances.

The Soil NTCRA removed nearly 35,000 yd³ of contaminated soil and debris. The extent of the Soil NTCRA excavations are shown in the individual TAA Figures 3-1 to 3-15 and on Figure 5-1.

In accordance with the EE/CA and Soil NTCRA Work Plan, approximately 17,000 yd³ of contaminated soil from TAAs in SWMU1 and AOC1 were processed through mechanical screening equipment, as described in Section 2.6. The mechanical separation generated approximately 7,000 yd³ of screened coarse material that was retained onsite for use as backfill within BCW, reducing the amount of imported soil required to backfill the SWMU1 and AOC 1 excavations by 7,000 yd³. Approximately 300 yd³ of screened rock was set aside for use during future Topock projects.

The Soil NTCRA generated approximately 42,000 tons of waste that was characterized, profiled, and disposed of at approved landfill facilities, as described in Section 2.8.

Section 4 describes the postconstruction activities, restoration of areas disturbed during the Soil NTCRA, and closeout inspections. All Soil NTCRA activities were completed in May 2024.

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Tables

Table 2-1. Soil NTCRA Quantities

Soil NTCRA Completion Report

Topock Compressor Station, Needles, California

Target Action Area	EE/CA Estimated TAA Area (ft ²)	EE/CA Estimated Maximum Depth (feet)	EE/CA Estimated Maximum Volume (Bank yd ³)	Soil NTCRA Excavation Volume (Bank yd ³)	Soil NTCRA Backfill Volume (Bank yd ³)	Soil NTCRA Screening Quantity ^[a] (Bank yd ³)	Soil NTCRA Disposal Quantity ^[b] (Tons)
SWMU1 TAA1	6,886	10	2,550	14,499	10,528	14,499	13,534
SWMU1 TAA2	2,380	5	441	2,816	2,718	N/A	4,348
SWMU1 TAA3	114	5	21	63	0	N/A	98
AOC1 TAA1	351	5	65	327	339	327	305
AOC1 TAA2	1,912	10	708	2,070	2,029	2,070	1,926
AOC1 TAA3	473	5	88	128	18	128	119
AOC9 TAA1	210	5	39	90	140	N/A	114
AOC10 TAA1	6,472	5	1,199	2,311	2,407	N/A	2,932
AOC10 TAA2	6,650	5	1,231	8,271	1,827	N/A	10,469
AOC10 TAA3	379	5	70	73	0	N/A	92
AOC10 TAA4	265	5	49	910	640	N/A	1,151
AOC11 TAA1	1,917	5	355	754	0	N/A	1,335
AOC14 TAA1	1,513	5	280	1,640	2,428	N/A	2,440
AOC16 TAA1	200	0.5	4	10	6	N/A	16
AOC27 TAA1	828	5	153	744	674	N/A	1,157
SPY Cleanup	N/A	N/A	N/A	N/A	N/A	N/A	1,936
Total Volume	N/A	N/A	7,253	34,706	23,754	17,024	41,972

^[a] Mechanical screening quantities are based on the TAA excavation volume^[b] The disposal quantities for AOC1 TAA1, AOC1 TAA2, AOC1 TAA3, and SWMU1 TAA1 are based on 60% of the screened material being less than 3/4 inch and requiring disposal. Disposal quantities per TAA are based on a calculated tons/yard³ conversion rate. The conversion rates were calculated from the total tonnage per waste profile divided by the yd³ of the TAAs with waste disposed of under the same waste profile. The estimated conversion rates are as follows:

- BCW soil = 1.55 tons/yard³
- East Ravine soil = 1.27 tons/yard³
- AOC14 soil = 1.49 tons/yard³
- AOC11 soil = 1.77 tons/yard³

AOC = area of concern

BCW = Bat Cave Wash

EE/CA = Engineering Evaluation and Cost Analysis

ft² = square foot (feet)

N/A = not applicable

NTCRA = non-time-critical removal action

SWMU = solid waste management unit

TAA = target action area

yd³ = cubic yard(s)

Table 2-2. Waste Profile Summary

Soil NTCRA Completion Report

Topock Compressor Station, Needles, California

Target Action Area	Waste Type	Hazardous Waste Characteristics	Waste Quantity (tons)	PG&E Associated Waste Generation Location	EPA ID	Waste Profile #	Disposal Facility
SWMU1 TAA1	Nonhazardous	N/A	13,534	TCS	CAR000181560	51242315251	LaPaz, Parker Arizona
SWMU1 TAA2	Nonhazardous	N/A	3,232	TCS	CAR000181560	51242315251	LaPaz, Parker Arizona
	NonRCRA hazardous	STLC exceedance - chromium	1,116	SPY	CAL000483096	5124240825	LaPaz, Parker Arizona
SWMU1 TAA3	Nonhazardous	N/A	98	TCS	CAR000181560	51242315251	LaPaz, Parker Arizona
AOC1 TAA1	Nonhazardous	N/A	305	TCS	CAR000181560	51242315251	LaPaz, Parker Arizona
AOC1 TAA2	Nonhazardous	N/A	1,924	TCS	CAR000181560	51242315251	LaPaz, Parker Arizona
	RCRA hazardous	TTLC exceedance - metals and asbestos	2	TCS	CAR000348698	70337497	US Ecology, Beatty, Nevada
AOC1 TAA3	Nonhazardous	N/A	119	TCS	CAR000181560	51242315251	LaPaz, Parker Arizona
AOC9 TAA1	Nonhazardous	N/A	114	TCS	CAR000181560	51242215499	LaPaz, Parker Arizona
AOC10 TAA1	Nonhazardous	N/A	2,916	TCS	CAR000181560	51242215499	LaPaz, Parker Arizona
	NonRCRA hazardous	STLC exceedance - chromium	8	TCS	CAR000348698	51242313985	LaPaz, Parker Arizona
	RCRA hazardous	TCLP exceedance - chromium	8	TCS	CAR000348698	70334546	US Ecology, Beatty, Nevada
AOC10 TAA2	Nonhazardous	N/A	10,469	TCS	CAR000181560	51242215499	LaPaz, Parker Arizona
AOC10 TAA3	Nonhazardous	N/A	92	TCS	CAR000181560	51242215499	LaPaz, Parker Arizona
AOC10 TAA4	Nonhazardous	N/A	1,151	TCS	CAR000181560	51242215499	LaPaz, Parker Arizona
AOC11 TAA1	Nonhazardous	N/A	1,335	TCS	CAR000181560	51242213264	LaPaz, Parker Arizona
AOC14 TAA1	NonRCRA hazardous	Friable asbestos	1,577	AOC14	CAC003257474	51242316379	LaPaz, Parker Arizona
	NonRCRA hazardous	Friable asbestos	863	SPY	CAC003220396	5124235371	LaPaz, Parker Arizona
AOC16 TAA1	Nonhazardous	N/A	16	TCS	CAR000181560	51242315251	LaPaz, Parker Arizona
AOC27 TAA1	Nonhazardous	N/A	1,157	TCS	CAR000181560	51242315251	LaPaz, Parker Arizona
SPY Cleanup	Nonhazardous	N/A	1,936	TCS	CAR000181560	5124243389	LaPaz, Parker Arizona

AOC = area of concern

ID = identification

N/A = not applicable

NTCRA = non-time-critical removal action

RCRA = Resource Conservation and Recovery Act

SPY = Soil Processing Yard

STLC = Soluble Threshold Limit Concentration

SWMU = solid waste management unit

TAA = target action area

TCLP = Toxicity Characteristic Leaching Procedure

TCS = Topock Compressor Station

TTLC = total threshold limit concentration

Table 3-1. SWMU1 TAA1 Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

				Sample ID	SWMU1TAA1- CF1-10	SWMU1TAA1- CF2-10	SWMU1TAA1- CF3-10	SWMU1TAA1- CF4-10	SWMU1TAA1- CF5-8	SWMU1TAA1- CF6-4	SWMU1TAA1- CF7-6	SWMU1TAA1- CF8-3	SWMU1TAA1- CF9-6	SWMU1TAA1- CF9a-7	SWMU1TAA1- CF10-6
				Sample Depth (feet bgs)	10-10.5	10-10.5	10-10.5	10-10.5	8-8.5	4-4.5	6-6.5	3-3.5	6-6.5	7-7.5	6-6.5
				Sample Date	10/10/2022	10/10/2022	10/11/2022	10/13/2022	1/18/2023	1/27/2023	2/1/2023	2/1/2023	2/16/2023	2/28/2023	2/16/2023
				Sample QA/QC Type	N	N	N	N	N	N	N	N	N	N	N
				Sample Location Type	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor
				Soil Status	In Place	In Place	In Place	In Place	In Place	In Place	In Place	Removed	Removed	In Place	Removed
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	SWMU1TAA1- CF1-10	SWMU1TAA1- CF2-10	SWMU1TAA1- CF3-10	SWMU1TAA1- CF4-10	SWMU1TAA1- CF5-8	SWMU1TAA1- CF6-4	SWMU1TAA1- CF7-6	SWMU1TAA1- CF8-3	SWMU1TAA1- CF9-6	SWMU1TAA1- CF9a-7	SWMU1TAA1- CF10-6
Chromium, hexavalent	7199	mg/kg	3.1	31	2.4	2.1	7.9	6.1	1.5	0.43	4.2	0.67	7.9	4.3	4.7
Chromium, total	6010B	mg/kg	145	145	17.0	49.0	1800^	560^	40.0J	25.0	130	28.0	240^	95.0	170^
Copper	6010B	mg/kg	145	145	11.0U	15.0	9.4	15.0	13.0	9.8	11.0	8.4	13.0	11.0	12.0
Lead	6010B	mg/kg	36	36	5.4U	1.4	2.2	3.1	3.4J	2.0	3.6	1.9	22.0	6.5	29.0
Mercury	7471A	mg/kg	1	1	0.11U	0.1U	0.1U	0.11U	0.11U	0.1U	0.1U	0.1U	0.1U	0.1U	0.11U
Molybdenum	6010B	mg/kg	22	22	5.4U	1.0U	1.3	1.1U	1.1UJ	1.0U	1.0U	1.0U	1.0U	1.0U	1.1U
Zinc	6010B	mg/kg	1050	1050	65.0J	100	150	150	39.0J	34.0	51.0	31.0	89.0	43.0	56.0
TEQ Human/Mammal	8290	ng/kg	100	190	3.1	1.4	74.0	200^	11.0	3.9	41.0	5.8	NA	20.0	NA
TEQ Human/Mammal	4025m	ng/kg	100	190	20.0	21.0	44.0J	64.0	37.0	13.0	54.0J	17.0J	64.0	7.0	61.0J

Notes:

Shading with ^ indicates the analyte exceeded screening criteria

bgs = below ground surface

FD = field duplicate sample

ID = identification

J = the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample

mg/kg = milligram(s) per kilogram

N = normal sample

NA = not analyzed

ng/kg = nanogram(s) per kilogram

NTCRA = non-time-critical removal action

QA = quality assurance

QC = quality control

SWMU = solid waste management unit

TAA = target action area

TEQ = toxicity equivalent

U = the analyte was analyzed for but was not detected exceeding the reported sample quantitation limit

UJ = the analyte concentration was less than the reported sample quantitation limit; however, the reported value is approximate

Table 3-1. SWMU1 TAA1 Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

				Sample ID	SWMU1TAA1- CF10a-7	SWMU1TAA1- CF11-10	SWMU1TAA1- CF12-10	SWMU1TAA1- CF12-10FD	SWMU1TAA1- CF13-10	SWMU1TAA1- CF14-10	SWMU1TAA1- CF15-10	SWMU1TAA1- CF16-10	SWMU1TAA1- CF17-10	SWMU1TAA1- CF18-10	SWMU1TAA1- CF19-10
				Sample Depth (feet bgs)	7-7.5	10-10.5	10-10.5	10-10.5	10-10.5	10-10.5	10-10.5	10-10.5	10-10.5	10-10.5	10-10.5
				Sample Date	2/28/2023	6/23/2023	6/23/2023	6/23/2023	9/19/2023	9/22/2023	9/22/2023	10/3/2023	10/25/2023	10/25/2023	11/14/2023
				Sample QA/QC Type	N	N	N	FD	N	N	N	N	N	N	N
				Sample Location Type	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor
				Soil Status	In Place	In Place	In Place	In Place	In Place	In Place	In Place	In Place	In Place	In Place	In Place
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	SWMU1TAA1- CF10a-7	SWMU1TAA1- CF11-10	SWMU1TAA1- CF12-10	SWMU1TAA1- CF12-10FD	SWMU1TAA1- CF13-10	SWMU1TAA1- CF14-10	SWMU1TAA1- CF15-10	SWMU1TAA1- CF16-10	SWMU1TAA1- CF17-10	SWMU1TAA1- CF18-10	SWMU1TAA1- CF19-10
Chromium, hexavalent	7199	mg/kg	3.1	31	1.1	0.96	0.25	0.22U	13.0	9.1	1.9	1.1	0.36	1.5	0.42
Chromium, total	6010B	mg/kg	145	145	25.0	24.0	16.0J	24.0J	2100J^	1400^	120	140	31.0	43.0	26.0
Copper	6010B	mg/kg	145	145	9.9	11.0	6.7	9.7	17.0	15.0	12.0	11.0	9.5	8.9	11.0
Lead	6010B	mg/kg	36	36	3.1	1.6	1.2	1.3	2.8	3.4	2.5	1.3	1.8	1.5	3.7
Mercury	7471A	mg/kg	1	1	0.1U	0.1U	0.1U	0.11U	0.1U	0.1U	0.11U	0.1U	0.11U	0.1U	0.1U
Molybdenum	6010B	mg/kg	22	22	1.0U	1.0U	1.1U	1.1U	1.7	1.8	1.1U	1.0U	1.1U	0.17U	1.1U
Zinc	6010B	mg/kg	1050	1050	30.0	91.0	68.0	69.0	240J	160	180	120	72.0	44.0	35.0
TEQ Human/Mammal	8290	ng/kg	100	190	1.2	1.1	1.1	1.1	370^	580^	35.0	27.0	7.9	8.6	7.7
TEQ Human/Mammal	4025m	ng/kg	100	190	7.0	NA	NA	NA	93.0	140J	39.0J	42.0J	28.0	53.0J	41.0

Notes:

Shading with ^ indicates the analyte exceeded screening criteria

bgs = below ground surface

FD = field duplicate sample

ID = identification

J = the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample

mg/kg = milligram(s) per kilogram

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Table 3-1. SWMU1 TAA1 Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

				Sample ID	SWMU1TAA1-CF20-10	SWMU1TAA1-CF21-5	SWMU1TAA1-CF22-10	SWMU1TAA1-CW1-5	SWMU1TAA1-CW1-5FD	SWMU1TAA1-CW2-5	SWMU1TAA1-CW2a-5	SWMU1TAA1-CW3-5	SWMU1TAA1-CW3a-5	SWMU1TAA1-CW4-5	SWMU1TAA1-CW5-5
				Sample Depth (feet bgs)	10-10.5	5-5.5	10-10.5	5-5.5	5-5.5	5-5.5	5-5.5	5-5.5	5-5.5	5-5.5	5-5.5
				Sample Date	11/30/2023	12/1/2023	12/19/2023	10/8/2022	10/8/2022	10/10/2022	11/14/2023	10/11/2022	6/23/2023	10/11/2022	10/13/2022
				Sample QA/QC Type	N	N	N	N	FD	N	N	N	N	N	N
				Sample Location Type	Floor	Floor	Floor	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall
				Soil Status	In Place	In Place	In Place	In Place	In Place	Removed	In Place	Removed	In Place	In Place	In Place
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	SWMU1TAA1-CF20-10	SWMU1TAA1-CF21-5	SWMU1TAA1-CF22-10	SWMU1TAA1-CW1-5	SWMU1TAA1-CW1-5FD	SWMU1TAA1-CW2-5	SWMU1TAA1-CW2a-5	SWMU1TAA1-CW3-5	SWMU1TAA1-CW3a-5	SWMU1TAA1-CW4-5	SWMU1TAA1-CW5-5
Chromium, hexavalent	7199	mg/kg	3.1	31	0.21U	0.36	1.3	1.5J	1.2J	17.0	1.5	11.0	0.21U	0.22U	0.2U
Chromium, total	6010B	mg/kg	145	145	18.0	40.0	82.0	25.0J	43.0J	1800^	69.0	1900^	23.0	26.0	16.0
Copper	6010B	mg/kg	145	145	8.3	9.2	12.0	12.0	13.0	12.0	10.0	12.0	12.0	11.0	12.0
Lead	6010B	mg/kg	36	36	2.5	1.9	2.7	4.0	4.9	3.4	3.4	5.3	5.5	2.2	1.3
Mercury	7471A	mg/kg	1	1	0.1U	0.1U	0.11U	0.11U	0.12U	0.1U	0.1U	0.1U	0.11U	0.11U	0.1U
Molybdenum	6010B	mg/kg	22	22	1.1U	1.0U	1.1U	1.1U	1.2U	1.1U	1.0U	8.5	1.1U	1.1U	1.0U
Zinc	6010B	mg/kg	1050	1050	32.0	35.0	60.0	39.0	46.0	250	40.0	83.0	36.0	44.0	32.0
TEQ Human/Mammal	8290	ng/kg	100	190	1.6	4.0	3.9	0.24	0.27	NA	60.0	NA	2.9	0.24	0.58
TEQ Human/Mammal	4025m	ng/kg	100	190	12.0J	55.0	1.0U	16.0	5.0	32.0	93.0	>275^	NA	9.0	14.0

Notes:

Shading with ^ indicates the analyte exceeded screening criteria

bgs = below ground surface

FD = field duplicate sample

ID = identification

J = the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample

mg/kg = milligram(s) per kilogram

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NTCRA = non-time-critical removal action

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TAA = target action area

TEQ = toxicity equivalent

U = the analyte was analyzed for but was not detected exceeding the reported sample quantitation limit

UJ = the analyte concentration was less than the reported sample quantitation limit; however, the reported value is approximate

Table 3-1. SWMU1 TAA1 Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

				Sample ID	SWMU1TAA1- CW6-6	SWMU1TAA1- CW7-5	SWMU1TAA1- CW7a-5	SWMU1TAA1- CW7b-6	SWMU1TAA1- CW8-2	SWMU1TAA1- CW8-2FD	SWMU1TAA1- CW9-2	SWMU1TAA1- CW10-2	SWMU1TAA1- CW10a-2	SWMU1TAA1- CW11-1	SWMU1TAA1- CW12-2
				Sample Depth (feet bgs)	6-6.5	5-5.5	5-5.5	6-6.5	2-2.5	2-2.5	2-2.5	2-2.5	2-2.5	1-1.5	2-2.5
				Sample Date	1/18/2023	1/18/2023	11/14/2023	11/30/2023	1/27/2023	1/27/2023	1/27/2023	2/1/2023	2/16/2023	2/1/2023	2/1/2023
				Sample QA/QC Type	N	N	N	N	N	FD	N	N	N	N	N
				Sample Location Type	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall
				Soil Status	In Place	Removed	In Place	In Place	In Place	In Place	In Place	Removed	In Place	In Place	Removed
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	SWMU1TAA1- CW6-6	SWMU1TAA1- CW7-5	SWMU1TAA1- CW7a-5	SWMU1TAA1- CW7b-6	SWMU1TAA1- CW8-2	SWMU1TAA1- CW8-2FD	SWMU1TAA1- CW9-2	SWMU1TAA1- CW10-2	SWMU1TAA1- CW10a-2	SWMU1TAA1- CW11-1	SWMU1TAA1- CW12-2
Chromium, hexavalent	7199	mg/kg	3.1	31	2.4	7.1	0.54	3.5	0.95	0.96	0.35	9.3	0.21U	0.21U	0.2U
Chromium, total	6010B	mg/kg	145	145	65.0J	160J^	33.0	87.0	33.0	37.0	24.0	400^	16.0	20.0	16.0
Copper	6010B	mg/kg	145	145	22.0	17.0	13.0	21.0	15.0	9.8	12.0	16.0	10.0	11.0	10.0
Lead	6010B	mg/kg	36	36	4.1J	12.0J	5.4	11.0	7.3	6.7	3.7	4.2	3.1	2.1	2.2
Mercury	7471A	mg/kg	1	1	0.11U	0.11U	0.11U	0.1U	0.11U	0.11U	0.1U	0.1U	0.1U	0.1U	0.1U
Molybdenum	6010B	mg/kg	22	22	1.1UJ	1.1UJ	1.1U	1.0U	1.1U	1.1U	1.0U	1.0U	1.0U	1.0U	1.0U
Zinc	6010B	mg/kg	1050	1050	51.0J	73.0J	35.0	72.0	37.0	38.0	37.0	96.0	32.0	32.0	32.0
TEQ Human/Mammal	8290	ng/kg	100	190	74.0	NA	20.0	150	12.0	11.0	12.0	NA	0.82	2.4	0.27
TEQ Human/Mammal	4025m	ng/kg	100	190	57.0	61.0	45.0	62.0	26.0	25.0	20.0	56.0J	10.0J	1.0U	1.0

Notes:

Shading with ^ indicates the analyte exceeded screening criteria

bgs = below ground surface

FD = field duplicate sample

ID = identification

J = the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample

mg/kg = milligram(s) per kilogram

N = normal sample

NA = not analyzed

ng/kg = nanogram(s) per kilogram

NTCRA = non-time-critical removal action

QA = quality assurance

QC = quality control

SWMU = solid waste management unit

TAA = target action area

TEQ = toxicity equivalent

U = the analyte was analyzed for but was not detected exceeding the reported sample quantitation limit

UJ = the analyte concentration was less than the reported sample quantitation limit; however, the reported value is approximate

Table 3-1. SWMU1 TAA1 Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

				Sample ID	SWMU1TAA1- CW13-4	SWMU1TAA1- CW14-5	SWMU1TAA1- CW15-2	SWMU1TAA1- CW16-5	SWMU1TAA1- CW17-5	SWMU1TAA1- CW18-6	SWMU1TAA1- CW19-5	SWMU1TAA1- CW20-6	SWMU1TAA1- CW20a-5	SWMU1TAA1- CW21-6	SWMU1TAA1- CW22-6
				Sample Depth (feet bgs)	4-4.5	5-5.5	2-2.5	5-5.5	5-5.5	6-6.5	5-5.5	6-6.5	5-5.5	6-6.5	6-6.5
				Sample Date	2/16/2023	2/16/2023	2/16/2023	6/23/2023	9/19/2023	9/19/2023	9/19/2023	9/22/2023	10/25/2023	9/27/2023	10/3/2023
				Sample QA/QC Type	N	N	N	N	N	N	N	N	N	N	N
				Sample Location Type	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall
				Soil Status	In Place	In Place	In Place	In Place	Removed	Removed	Removed	Removed	In Place	In Place	In Place
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	SWMU1TAA1- CW13-4	SWMU1TAA1- CW14-5	SWMU1TAA1- CW15-2	SWMU1TAA1- CW16-5	SWMU1TAA1- CW17-5	SWMU1TAA1- CW18-6	SWMU1TAA1- CW19-5	SWMU1TAA1- CW20-6	SWMU1TAA1- CW20a-5	SWMU1TAA1- CW21-6	SWMU1TAA1- CW22-6
Chromium, hexavalent	7199	mg/kg	3.1	31	0.22U	0.21U	0.21U	0.22	0.2U	0.21U	2.1	9.9	1.5	0.21U	0.21U
Chromium, total	6010B	mg/kg	145	145	20.0	16.0	12.0	21.0	19.0	13.0	130	3400^	56.0	20.0	23.0
Copper	6010B	mg/kg	145	145	12.0	11.0	9.3	9.5	12.0	11.0	12.0	52.0	9.3	11.0	12.0
Lead	6010B	mg/kg	36	36	3.5	4.0	4.2	2.9	6.6	12.0	5.8	3.8	5.8	2.7	2.1
Mercury	7471A	mg/kg	1	1	0.11U	0.11U	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	0.11U
Molybdenum	6010B	mg/kg	22	22	1.1U	1.1U	1.0U	1.0U	1.0U	1.0U	1.1U	1.1U	1.1U	1.1U	1.1U
Zinc	6010B	mg/kg	1050	1050	32.0	32.0	28.0	33.0	40.0	29.0	61.0	250	42.0	34.0	37.0
TEQ Human/Mammal	8290	ng/kg	100	190	0.65	1.8	0.68	0.68	1.2	39.0	4.7	NA	24.0	0.89	1.7
TEQ Human/Mammal	4025m	ng/kg	100	190	6.0J	10.0J	8.0J	NA	24.0	25.0	76.0	77.0	44.0	18.0J	10.0J

Notes:

Shading with ^ indicates the analyte exceeded screening criteria

bgs = below ground surface

FD = field duplicate sample

ID = identification

J = the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample

mg/kg = milligram(s) per kilogram

N = normal sample

NA = not analyzed

ng/kg = nanogram(s) per kilogram

NTCRA = non-time-critical removal action

QA = quality assurance

QC = quality control

SWMU = solid waste management unit

TAA = target action area

TEQ = toxicity equivalent

U = the analyte was analyzed for but was not detected exceeding the reported sample quantitation limit

UJ = the analyte concentration was less than the reported sample quantitation limit; however, the reported value is approximate

Table 3-1. SWMU1 TAA1 Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

				Sample ID	SWMU1TAA1- CW23-2	SWMU1TAA1- CW24-7	SWMU1TAA1- CW24a-5	SWMU1TAA1- CW25-7	SWMU1TAA1- CW25a-5	SWMU1TAA1- CW26-7	SWMU1TAA1- CW26-7FD	SWMU1TAA1- CW26a-5	SWMU1TAA1- CW27-5	SWMU1TAA1- CW27-FD	SWMU1TAA1- CW28-5
				Sample Depth (feet bgs)	2-2.5	7-7.5	5-5.5	7-7.5	5-5.5	7.5-8	7.5-8	5-5.5	5-5.5	5-5.5	5-5.5
				Sample Date	10/3/2023	10/5/2023	10/25/2023	10/19/2023	10/25/2023	10/19/2023	10/19/2023	12/19/2023	10/25/2023	10/25/2023	10/25/2023
				Sample QA/QC Type	N	N	N	N	N	N	FD	N	N	FD	N
				Sample Location Type	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall
				Soil Status	In Place	Removed	In Place	Removed	In Place	Removed	Removed	In Place	In Place	In Place	In Place
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	SWMU1TAA1- CW23-2	SWMU1TAA1- CW24-7	SWMU1TAA1- CW24a-5	SWMU1TAA1- CW25-7	SWMU1TAA1- CW25a-5	SWMU1TAA1- CW26-7	SWMU1TAA1- CW26-7FD	SWMU1TAA1- CW26a-5	SWMU1TAA1- CW27-5	SWMU1TAA1- CW27-FD	SWMU1TAA1- CW28-5
Chromium, hexavalent	7199	mg/kg	3.1	31	7.8	9.6	1.4	14.0	1.1	4.4J	2.6J	0.21U	1.4	1.6	3.4
Chromium, total	6010B	mg/kg	145	145	920^	1400^	45.0	1600^	36.0	450J^	230J^	17.0	28.0	28.0	97.0
Copper	6010B	mg/kg	145	145	15.0	25.0	7.8	25.0	8.7	12.0	12.0	9.8	13.0	10.0	13.0
Lead	6010B	mg/kg	36	36	3.4	2.7	1.9	4.2	1.8	3.2	2.7	2.7	1.7	1.8	1.8
Mercury	7471A	mg/kg	1	1	0.11U	0.1U	0.1U	0.1U	0.1U	0.1U	0.099U	0.11U	0.1U	0.1U	0.1U
Molybdenum	6010B	mg/kg	22	22	1.1U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.1U	1.0U	1.0U	1.0U
Zinc	6010B	mg/kg	1050	1050	300	230	32.0	190	32.0	51.0	45.0	33.0	47.0	49.0	83.0
TEQ Human/Mammal	8290	ng/kg	100	190	29.0	NA	5.3	NA	3.1	NA	NA	2.6	2.8	3.4	6.0
TEQ Human/Mammal	4025m	ng/kg	100	190	25.0J	>275^	28.0J	44.0J	8.0J	44.0J	NA	3.0	4.0J	NA	7.0J

Notes:

Shading with ^ indicates the analyte exceeded screening criteria

bgs = below ground surface

FD = field duplicate sample

ID = identification

J = the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample

mg/kg = milligram(s) per kilogram

N = normal sample

NA = not analyzed

ng/kg = nanogram(s) per kilogram

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QA = quality assurance

QC = quality control

SWMU = solid waste management unit

TAA = target action area

TEQ = toxicity equivalent

U = the analyte was analyzed for but was not detected exceeding the reported sample quantitation limit

UJ = the analyte concentration was less than the reported sample quantitation limit; however, the reported value is approximate

Table 3-1. SWMU1 TAA1 Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

				Sample ID	SWMU1TAA1- CW29-5	SWMU1TAA1- CW29a-4	SWMU1TAA1- CW30-5	SWMU1TAA1- CW31-5	SWMU1TAA1- CW32-4	SWMU1TAA1- CW32a-4	SWMU1TAA1- CW32a-4FD	SWMU1TAA1- CW33-4	SWMU1TAA1- CW34-4	SWMU1TAA1- CW35-5	SWMU1TAA1- CW36-3
				Sample Depth (feet bgs)	5-5.5	4-4.5	5-5.5	5-5.5	4-4.5	4-4.5	4-4.5	4-4.5	4-4.5	5-5.5	3-3.5
				Sample Date	11/14/2023	11/29/2023	11/30/2023	11/30/2023	12/1/2023	12/8/2023	12/8/2023	12/1/2023	12/1/2023	12/19/2023	12/20/2023
				Sample QA/QC Type	N	N	N	N	N	N	FD	N	N	N	N
				Sample Location Type	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall
				Soil Status	Removed	In Place	In Place	In Place	Removed	In Place	In Place	In Place	In Place	In Place	In Place
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	SWMU1TAA1- CW29-5	SWMU1TAA1- CW29a-4	SWMU1TAA1- CW30-5	SWMU1TAA1- CW31-5	SWMU1TAA1- CW32-4	SWMU1TAA1- CW32a-4	SWMU1TAA1- CW32a-4FD	SWMU1TAA1- CW33-4	SWMU1TAA1- CW34-4	SWMU1TAA1- CW35-5	SWMU1TAA1- CW36-3
Chromium, hexavalent	7199	mg/kg	3.1	31	4.7	1.7	0.36	0.23	1.8	2.4	2.8	0.21U	0.46	1.4	0.2U
Chromium, total	6010B	mg/kg	145	145	180^	46.0	35.0	23.0	87.0	100	110	24.0	36.0	140	8.3J
Copper	6010B	mg/kg	145	145	12.0	12.0	12.0	8.0	11.0	10.0	8.6	9.8	16.0	13.0	3.2
Lead	6010B	mg/kg	36	36	8.2	5.6	12.0	1.5	4.0	2.7	2.6	1.6	6.5	2.1	2.1
Mercury	7471A	mg/kg	1	1	0.11U	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	0.11U	0.11U	0.1U
Molybdenum	6010B	mg/kg	22	22	1.1U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.1U	1.1U	1.0U
Zinc	6010B	mg/kg	1050	1050	69.0	50.0	40.0	37.0	48.0	51.0	49.0	33.0	45.0	130	12.0
TEQ Human/Mammal	8290	ng/kg	100	190	160	77.0	8.5	7.9	53.0	53.0	37.0	3.2	7.5	5.9	0.3
TEQ Human/Mammal	4025m	ng/kg	100	190	160	48.0J	12.0J	40.0	203^	32.0	NA	42.0J	24.0	26.0J	6.0J

Notes:

Shading with ^ indicates the analyte exceeded screening criteria

bgs = below ground surface

FD = field duplicate sample

ID = identification

J = the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample

mg/kg = milligram(s) per kilogram

N = normal sample

NA = not analyzed

ng/kg = nanogram(s) per kilogram

NTCRA = non-time-critical removal action

QA = quality assurance

QC = quality control

SWMU = solid waste management unit

TAA = target action area

TEQ = toxicity equivalent

U = the analyte was analyzed for but was not detected exceeding the reported sample quantitation limit

UJ = the analyte concentration was less than the reported sample quantitation limit; however, the reported value is approximate

Table 3-1. SWMU1 TAA1 Confirmation Soil Sample Results

Soil NTCRA Completion Report

Topock Compressor Station, Needles, California

				Sample ID	SWMU1TAA1- CW36-3FD	SWMU1TAA1- CW37-3	SWMU1TAA1- CW38-4	SWMU1TAA1- CW39-4	SWMU1TAA1- CW40-4
				Sample Depth (feet bgs)	3-3.5	3-3.5	4-4.5	4-4.5	4-4.5
				Sample Date	12/20/2023	12/20/2023	12/20/2023	12/20/2023	12/21/2023
				Sample QA/QC Type	FD	N	N	N	N
				Sample Location Type	Wall	Wall	Wall	Wall	Wall
				Soil Status	In Place	In Place	In Place	In Place	In Place
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	SWMU1TAA1- CW36-3FD	SWMU1TAA1- CW37-3	SWMU1TAA1- CW38-4	SWMU1TAA1- CW39-4	SWMU1TAA1- CW40-4
Chromium, hexavalent	7199	mg/kg	3.1	31	0.21U	0.2U	0.21U	0.83	0.25UJ
Chromium, total	6010B	mg/kg	145	145	6.2J	16.0	23.0	20.0	38.0
Copper	6010B	mg/kg	145	145	2.9	8.3	10.0	7.8	7.0
Lead	6010B	mg/kg	36	36	1.9	1.7	1.4	4.2	1.3U
Mercury	7471A	mg/kg	1	1	0.1U	0.1U	0.1U	0.1U	0.13U
Molybdenum	6010B	mg/kg	22	22	1.0U	1.0U	1.0U	1.1U	1.3U
Zinc	6010B	mg/kg	1050	1050	10.0	31.0	35.0	27.0	16.0
TEQ Human/Mammal	8290	ng/kg	100	190	0.55	0.87	0.61	0.58	0.35
TEQ Human/Mammal	4025m	ng/kg	100	190	NA	14.0J	6.0J	5.0	5.0

Notes:

Shading with ^ indicates the analyte exceeded screening criteria

bgs = below ground surface

FD = field duplicate sample

ID = identification

J = the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample

mg/kg = milligram(s) per kilogram

N = normal sample

NA = not analyzed

ng/kg = nanogram(s) per kilogram

NTCRA = non-time-critical removal action

QA = quality assurance

QC = quality control

SWMU = solid waste management unit

TAA = target action area

TEQ = toxicity equivalent

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UJ = the analyte concentration was less than the reported sample quantitation limit; however, the reported value is approximate

Table 3-2. SWMU1 TAA2 Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

				Sample ID	SWMU1TAA2- CF1-4	SWMU1TAA2- CF2-4	SWMU1TAA2- CF3-4	SWMU1TAA2- CW1-3	SWMU1TAA2- CW2-3	SWMU1TAA2- CW3-3	SWMU1TAA2- CW4-1.5	SWMU1TAA2- CW4-1.5FD	SWMU1TAA2- CW5-3	SWMU1TAA2- CW6-1.5	SWMU1TAA2- CW6-FD-1.5	SWMU1TAA2- CW7-3	SWMU1TAA2- CW8-3
				Sample Depth (feet bgs)	4-4.5	4-4.5	4-4.5	3-3.5	3-3.5	3-3.5	1.5-2	1.5-2	3-3.5	1.5-2	1.5-2	3-3.5	3-3.5
				Sample Date	12/8/2023	12/11/2023	12/14/2023	12/8/2023	12/11/2023	12/11/2023	12/12/2023	12/12/2023	12/14/2023	12/14/2023	12/14/2023	12/15/2023	12/15/2023
				Sample QA/QC Type	N	N	N	N	N	N	N	FD	N	N	FD	N	N
				Sample Location Type	Floor	Floor	Floor	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall
				Soil Status	In Place	In Place	In Place	In Place	In Place	In Place	In Place	In Place	In Place	In Place	In Place	In Place	In Place
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	SWMU1TAA2- CF1-4	SWMU1TAA2- CF2-4	SWMU1TAA2- CF3-4	SWMU1TAA2- CW1-3	SWMU1TAA2- CW2-3	SWMU1TAA2- CW3-3	SWMU1TAA2- CW4-1.5	SWMU1TAA2- CW4-1.5FD	SWMU1TAA2- CW5-3	SWMU1TAA2- CW6-1.5	SWMU1TAA2- CW6-FD-1.5	SWMU1TAA2- CW7-3	SWMU1TAA2- CW8-3
Chromium, hexavalent	7199	mg/kg	3.1	31	0.22U	0.22U	0.21U	0.22U	0.23U	0.2U	0.21U	0.21U	0.22U	0.21U	0.21U	0.21U	0.21U
Chromium, total	6010B	mg/kg	145	145	19.0	23.0	17.0	34.0	30.0	19.0	22.0	20.0	21.0	26.0	28.0	16.0	20.0
Copper	6010B	mg/kg	145	145	13.0	14.0	11.0	15.0	15.0	12.0	16.0	16.0	14.0	21.0	20.0	11.0	11.0
Lead	6010B	mg/kg	36	36	2.0	3.4	1.9	3.6	3.5	2.9	6.6	5.8	2.8	12.0	7.6	1.4	2.1
Mercury	7471A	mg/kg	1	1	0.11U	0.11U	0.1U	0.11U	0.11U	0.1U	0.1U	0.1U	0.11U	0.11U	0.1U	0.1U	0.1U
Molybdenum	6010B	mg/kg	22	22	1.1U	1.1U	1.1U	1.1U	1.1U	1.0U	1.1U	1.0U	1.1U	1.1U	1.1U	1.0U	1.0U
Zinc	6010B	mg/kg	1050	1050	28.0	38.0	32.0	35.0	29.0	27.0	38.0	39.0	39.0	43.0	44.0	30.0	31.0
TEQ Human/Mammal	8290	ng/kg	100	190	0.51	26.0	0.47	5.5	3.4	0.91	1.1	0.82	0.74	1.3	1.2	1.2	0.99
TEQ Human/Mammal	4025m	ng/kg	100	190	11.0J	28.0	53.0J	9.0J	1.0J	8.0J	17.0J	NA	24.0J	27.0J	NA	8.0	5.0J

Notes:

- Shading with ^ indicates the analyte exceeded screening criteria
- bgs = below ground surface
- FD = field duplicate sample
- ID = identification
- J = the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample
- mg/kg = milligram(s) per kilogram
- N = normal sample
- NA = not analyzed
- ng/kg = nanogram(s) per kilogram
- NTCRA = non-time-critical removal action
- QA = quality assurance
- QC = quality control
- SWMU = solid waste management unit
- TAA = target action area
- TEQ = toxicity equivalent
- U = the analyte was analyzed for but was not detected exceeding the reported sample quantitation limit
- UJ = the analyte concentration was less than the reported sample quantitation limit; however, the reported value is approximate

Table 3-3. SWMU1 TAA3 Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

				Sample ID	SWMU1TAA3- CF1-3	SWMU1TAA3- CF1a-3	SWMU1TAA3- CW1-2	SWMU1TAA3- CW2-2	SWMU1TAA3- CW3-2	SWMU1TAA3- CW4-2	SWMU1TAA3- CW4a-1.5	SWMU1TAA3- CW5-2
				Sample Depth (feet bgs)	3-3.5	3-3.5	2-2.5	2-2.5	2-2.5	2-2.5	1.5-2	2-2.5
				Sample Date	11/28/2023	12/4/2023	11/28/2023	11/28/2023	11/28/2023	11/28/2023	1/12/2024	12/4/2023
				Sample QA/QC Type	N	N	N	N	N	N	N	N
				Sample Location Type	Floor	Floor	Wall	Wall	Wall	Wall	Wall	Wall
				Soil Status	Removed	In Place	In Place	Removed	In Place	Removed	In Place	In Place
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	SWMU1TAA3- CF1-3	SWMU1TAA3- CF1a-3	SWMU1TAA3- CW1-2	SWMU1TAA3- CW2-2	SWMU1TAA3- CW3-2	SWMU1TAA3- CW4-2	SWMU1TAA3- CW4a-1.5	SWMU1TAA3- CW5-2
Chromium, hexavalent	7199	mg/kg	3.1	31	3.4	0.7	1.7	0.98	0.31	1.9	0.3J	0.21U
Chromium, total	6010B	mg/kg	145	145	190^	32.0	29.0	30.0	15.0	88.0	36.0	12.0
Copper	6010B	mg/kg	145	145	20.0J	11.0	15.0J	36.0J	13.0J	16.0J	13.0	9.3
Lead	6010B	mg/kg	36	36	12.0	8.7	35.0	59.0^	4.4	11.0	8.5	2.0
Mercury	7471A	mg/kg	1	1	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U
Molybdenum	6010B	mg/kg	22	22	4.1	1.0U	2.2	2.7	1.0U	3.5	1.0U	1.0U
Zinc	6010B	mg/kg	1050	1050	93.0	37.0	53.0	58.0	32.0	64.0	170	28.0
TEQ Human/Mammal	8290	ng/kg	100	190	NA	26.0	47.0	NA	10.0	230^	12.0	0.88
TEQ Human/Mammal	4025m	ng/kg	100	190	128J	47.0	48.0	56.0J	29.0	44.0J	28.0J	5.0

Notes:

Shading with ^ indicates the analyte exceeded screening criteria

bgs = below ground surface

FD = field duplicate sample

ID = identification

J = the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample

mg/kg = milligram(s) per kilogram

N = normal sample

NA = not analyzed

ng/kg = nanogram(s) per kilogram

NTCRA = non-time-critical removal action

QA = quality assurance

QC = quality control

SWMU = solid waste management unit

TAA = target action area

TEQ = toxicity equivalent

U = the analyte was analyzed for but was not detected exceeding the reported sample quantitation limit

UJ = the analyte concentration was less than the reported sample quantitation limit; however, the reported value is approximate

Table 3-4. AOC1 TAA1 Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

				Sample ID	AOC1TAA1-CF1-5	AOC1TAA1-CF1-5R	AOC1TAA1-CF1a-7	AOC1TAA1-CW1-3	AOC1TAA1-CW1a-5	AOC1TAA1-CW1b-5	AOC1TAA1-CW1c-5	AOC1TAA1-CW1d-5	AOC1TAA1-CW2-3	AOC1TAA1-CW2a-5	AOC1TAA1-CW2b-5	
				Sample Depth (feet bgs)	5-5.5	5-5.5	7-7.5	3-3.5	5-5.5	5-5.5	5-5.5	5-5.5	3-3.5	5-5.5	5-5.5	
				Sample Date	2/2/2023	3/2/2023	9/20/2023	2/2/2023	9/20/2023	10/2/2023	10/18/2023	10/18/2023	2/2/2023	9/20/2023	10/2/2023	
				Sample QA/QC Type	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Location Type	Floor	Floor	Floor	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall
				Soil Status	Removed	Removed	In Place	Removed	Removed	In Place	In Place	In Place	Removed	Removed	In Place	
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	AOC1TAA1-CF1-5	AOC1TAA1-CF1-5R	AOC1TAA1-CF1a-7	AOC1TAA1-CW1-3	AOC1TAA1-CW1a-5	AOC1TAA1-CW1b-5	AOC1TAA1-CW1c-5	AOC1TAA1-CW1d-5	AOC1TAA1-CW2-3	AOC1TAA1-CW2a-5	AOC1TAA1-CW2b-5	
Chromium, hexavalent	7199	mg/kg	3.1	31	1.0	NA	2.8	1.6	2.3	1.9	0.38	0.51	0.49	1.2	1.1	
Chromium, total	6010B	mg/kg	145	145	57.0	NA	89.0	31.0	77.0	89.0	26.0	33.0	38.0	49.0	57.0	
Copper	6010B	mg/kg	145	145	15.0	NA	12.0	9.2	14.0	12.0	7.0	7.1	11.0	13.0	11.0	
Lead	6010B	mg/kg	36	36	14.0	NA	3.4	3.3	13.0	4.8	2.6	2.0	3.3	12.0	5.4	
Mercury	7471A	mg/kg	1	1	0.1U	NA	0.1U	0.1U	0.11U	0.1U	0.1U	0.1U	0.1U	0.1U	0.11U	
Molybdenum	6010B	mg/kg	22	22	1.0U	NA	1.1U	1.0U	1.1U	1.0U	1.0U	1.0U	1.1U	1.0U	1.1U	
Zinc	6010B	mg/kg	1050	1050	53.0	NA	43.0	33.0	59.0	50.0	33.0	33.0	39.0	52.0	46.0	
TEQ Human/Mammal	8290	ng/kg	100	190	420^	450^	28.0	13.0	210^	82.0	29.0	21.0	17.0	200^	76.0	
TEQ Human/Mammal	4025m	ng/kg	100	190	53.0	NA	126J	18.0	>172	52.0J	109J	42.0	26.0J	217^	57.0	

Notes:

Shading with ^ indicates the analyte exceeded screening criteria

AOC = area of concern

bgs = below ground surface

FD = field duplicate sample

ID = identification

J = the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample

mg/kg = milligram(s) per kilogram

N= normal sample

NA = not analyzed

ng/kg = nanogram(s) per kilogram

NTCRA = non-time-critical removal action

QA = quality assurance

QC = quality control

TAA = target action area

TEQ = toxicity equivalent

U = the analyte was analyzed for but was not detected exceeding the reported sample quantitation limit

UJ = the analyte concentration was less than the reported sample quantitation limit; however, the reported value is approximate

Table 3-4. AOC1 TAA1 Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

				Sample ID	AOC1TAA1- CW2c-5	AOC1TAA1- CW2d-5	AOC1TAA1- CW3-2	AOC1TAA1- CW3a-5	AOC1TAA1- CW3b-5	AOC1TAA1- CW4-2	AOC1TAA1- CW4a-5
				Sample Depth (feet bgs)	5-5.5	5-5.5	2-2.5	5-5.5	5-5.5	2-2.5	5-5.5
				Sample Date	10/18/2023	10/18/2023	2/2/2023	9/20/2023	10/18/2023	2/2/2023	9/20/2023
				Sample QA/QC Type	N	N	N	N	N	N	N
				Sample Location Type	Wall	Wall	Wall	Wall	Wall	Wall	Wall
				Soil Status	In Place	In Place	Removed	Removed	In Place	Removed	In Place
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	AOC1TAA1- CW2c-5	AOC1TAA1- CW2d-5	AOC1TAA1- CW3-2	AOC1TAA1- CW3a-5	AOC1TAA1- CW3b-5	AOC1TAA1- CW4-2	AOC1TAA1- CW4a-5
Chromium, hexavalent	7199	mg/kg	3.1	31	0.7	0.55	0.68	0.64	0.89	0.69	1.3
Chromium, total	6010B	mg/kg	145	145	40.0	30.0	39.0	47.0	65.0	34.0	46.0
Copper	6010B	mg/kg	145	145	10.0	9.1	11.0	13.0	12.0	9.5	12.0
Lead	6010B	mg/kg	36	36	5.1	3.4	7.1	9.4	8.4	5.9	8.5
Mercury	7471A	mg/kg	1	1	0.1U	0.1U	0.1U	0.11U	0.1U	0.1U	0.11U
Molybdenum	6010B	mg/kg	22	22	1.0U	1.0U	1.0U	1.1U	1.0U	1.0U	1.1U
Zinc	6010B	mg/kg	1050	1050	41.0	35.0	39.0	51.0	46.0	36.0	48.0
TEQ Human/Mammal	8290	ng/kg	100	190	140	50.0	53.0	2700^	280^	89.0	180
TEQ Human/Mammal	4025m	ng/kg	100	190	79.0	63.0	49.0	63.0	113	52.0	99.0

Notes:

Shading with ^ indicates the analyte exceeded screening criteria

AOC = area of concern

bgs = below ground surface

FD = field duplicate sample

ID = identification

J = the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample

mg/kg = milligram(s) per kilogram

N = normal sample

NA = not analyzed

ng/kg = nanogram(s) per kilogram

NTCRA = non-time-critical removal action

QA = quality assurance

QC = quality control

TAA = target action area

TEQ = toxicity equivalent

U = the analyte was analyzed for but was not detected exceeding the reported sample quantitation limit

UJ = the analyte concentration was less than the reported sample quantitation limit; however, the reported value is approximate

Table 3-5. AOC1 TAA2 Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

				Sample ID	AOC1TAA2- CF1-10	AOC1TAA2- CF2-10	AOC1TAA2- CF3-10	AOC1TAA2- CF4-10	AOC1TAA2- CW1-5.5	AOC1TAA2- CW2-5	AOC1TAA2- CW3-5	AOC1TAA2- CW4-5	AOC1TAA2- CW4a-6	AOC1TAA2- CW5-7	AOC1TAA2- CW5a-5	AOC1TAA2- CW5b-7
				Sample Depth (feet bgs)	10-10.5	10-10.5	10-10.5	10-10.5	5.5-6	5-5.5	5-5.5	5-5.5	6-6.5	7-7.5	5-5.5	7-7.5
				Sample Date	9/27/2023	9/29/2023	10/26/2023	11/16/2023	9/25/2023	9/27/2023	9/27/2023	9/29/2023	10/17/2023	9/29/2023	10/6/2023	11/16/2023
				Sample QA/QC Type	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Location Type	Floor	Floor	Floor	Floor	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall
				Soil Status	In Place	In Place	In Place	In Place	In Place	In Place	In Place	Removed	In Place	Removed	In Place	Removed
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	AOC1TAA2- CF1-10	AOC1TAA2- CF2-10	AOC1TAA2- CF3-10	AOC1TAA2- CF4-10	AOC1TAA2- CW1-5.5	AOC1TAA2- CW2-5	AOC1TAA2- CW3-5	AOC1TAA2- CW4-5	AOC1TAA2- CW4a-6	AOC1TAA2- CW5-7	AOC1TAA2- CW5a-5	AOC1TAA2- CW5b-7
Chromium, hexavalent	7199	mg/kg	3.1	31	3.0	7.4	1.9	1.9	1.1	0.23U	0.57	14.0	0.72	7.3	0.99	5.8
Chromium, total	6010B	mg/kg	145	145	330^	340^	69.0J	56.0	47.0	15.0	70.0	940^	34.0	340^	64.0	180^
Copper	6010B	mg/kg	145	145	10.0	13.0	11.0	11.0	15.0	10.0	11.0	21.0	11.0	24.0	15.0	19.0
Lead	6010B	mg/kg	36	36	1.5	2.0	2.7	2.5	4.6	4.1	3.0	3.9	5.1	6.5	4.2	6.8
Mercury	7471A	mg/kg	1	1	0.1U	0.11U	0.1U	0.11U	0.1U	0.12U	0.11U	0.11U	0.1U	0.11U	0.1U	0.11U
Molybdenum	6010B	mg/kg	22	22	1.1U	1.1U	1.0U	1.1U	1.0U	1.1U	1.1U	1.1U	1.0U	1.1U	1.1U	1.1U
Zinc	6010B	mg/kg	1050	1050	100	160	44.0	37.0	38.0	35.0	40.0	79.0	35.0	98.0	77.0	57.0
TEQ Human/Mammal	8290	ng/kg	100	190	0.79	12.0	45.0	94.0	16.0	0.81	49.0	NA	52.0	NA	16.0	NA
TEQ Human/Mammal	4025m	ng/kg	100	190	11.0	16.0	30.0	42.0J	41.0J	20.0J	34.0	41.0J	54.0	87.0J	26.0J	92.0J

Notes:

Shading with ^ indicates the analyte exceeded screening criteria

AOC = area of concern

bgs = below ground surface

FD = field duplicate sample

ID = identification

J = the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample

mg/kg = milligram(s) per kilogram

N = normal sample

NA = not analyzed

ng/kg = nanogram(s) per kilogram

NTCRA = non-time-critical removal action

QA = quality assurance

QC = quality control

TAA = target action area

TEQ = toxicity equivalent

U = the analyte was analyzed for but was not detected exceeding the reported sample quantitation limit

UJ = the analyte concentration was less than the reported sample quantitation limit; however, the reported value is approximate

Table 3-5. AOC1 TAA2 Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

				Sample ID	AOC1TAA2- CW5c-7	AOC1TAA2- CW6-6	AOC1TAA2- CW6a-6	AOC1TAA2- CW6b-6	AOC1TAA2- CW6c-7	AOC1TAA2- CW7-8	AOC1TAA2- CW8-7	AOC1TAA2- CW9-4	AOC1TAA2- CW10-4	AOC1TAA2- CW11-4	AOC1TAA2- CW12-3	AOC1TAA2- CW12-3FD
				Sample Depth (feet bgs)	7-7.5	6-6.5	6-6.5	6-6.5	7-7.5	8-8.5	7-7.5	4-4.5	4-4.5	4-4.5	3-3.5	3-3.5
				Sample Date	11/29/2023	10/16/2023	10/18/2023	10/18/2023	11/16/2023	10/17/2023	10/19/2023	11/28/2023	11/28/2023	11/28/2023	12/1/2023	12/1/2023
				Sample QA/QC Type	N	N	N	N	N	N	N	N	N	N	N	FD
				Sample Location Type	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall
				Soil Status	In Place	In Place	In Place	Removed	In Place	In Place	In Place	In Place	In Place	In Place	In Place	In Place
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	AOC1TAA2- CW5c-7	AOC1TAA2- CW6-6	AOC1TAA2- CW6a-6	AOC1TAA2- CW6b-6	AOC1TAA2- CW6c-7	AOC1TAA2- CW7-8	AOC1TAA2- CW8-7	AOC1TAA2- CW9-4	AOC1TAA2- CW10-4	AOC1TAA2- CW11-4	AOC1TAA2- CW12-3	AOC1TAA2- CW12-3FD
Chromium, hexavalent	7199	mg/kg	3.1	31	0.24	14.0	4.9	3.0	1.0	0.42	2.5	1.3	2.2	0.44	0.44	0.42
Chromium, total	6010B	mg/kg	145	145	25.0	3300^	190^	130	69.0	16.0	86.0J	54.0	240^	34.0	39.0J	36.0
Copper	6010B	mg/kg	145	145	8.8	18.0	16.0	14.0	12.0	9.9	9.0	13.0	18.0	12.0	12.0	12.0
Lead	6010B	mg/kg	36	36	2.6	5.2	11.0	6.1	3.6	2.1	4.7	4.8	5.6	2.7	3.7	6.5
Mercury	7471A	mg/kg	1	1	0.1U	0.1U	0.11U	0.11U	0.11U	0.1U	0.1U	0.1U	0.11U	0.1U	0.1U	0.1U
Molybdenum	6010B	mg/kg	22	22	1.0U	1.8	1.1U	1.1U	1.1U	1.0U	1.0U	1.0U	1.1U	1.0U	1.0U	1.0U
Zinc	6010B	mg/kg	1050	1050	39.0	150	51.0	54.0	36.0	26.0	40.0J	38.0	64.0	30.0	45.0J	55.0
TEQ Human/Mammal	8290	ng/kg	100	190	13.0	31.0	22.0	35.0	42.0	25.0	18.0	92.0	320^	53.0	35.0	29.0
TEQ Human/Mammal	4025m	ng/kg	100	190	40.0	97.0J	43.0	53.0	51.0J	37.0	42.0J	37.0J	70.0	38.0J	142J	NA

Notes:

Shading with ^ indicates the analyte exceeded screening criteria

AOC = area of concern

bgs = below ground surface

FD = field duplicate sample

ID = identification

J = the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample

mg/kg = milligram(s) per kilogram

N = normal sample

NA = not analyzed

ng/kg = nanogram(s) per kilogram

NTCRA = non-time-critical removal action

QA = quality assurance

QC = quality control

TAA = target action area

TEQ = toxicity equivalent

U = the analyte was analyzed for but was not detected exceeding the reported sample quantitation limit

UJ = the analyte concentration was less than the reported sample quantitation limit; however, the reported value is approximate

Table 3-6. AOC1 TAA3 Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

				Sample ID	AOC1TAA3- CF1-4	AOC1TAA3- CW1-3	AOC1TAA3- CW2-3	AOC1TAA3- CW3-3	AOC1TAA3- CW4-4	AOC1TAA3- CW5-1
				Sample Depth (feet bgs)	4-4.5	3-3.5	3-3.5	3-3.5	4-4.5	1-1.5
				Sample Date	1/12/2023	1/12/2023	1/12/2023	1/12/2023	1/13/2023	1/19/2023
				Sample QA/QC Type	N	N	N	N	N	N
				Sample Location Type	Floor	Wall	Wall	Wall	Wall	Wall
				Soil Status	Removed	Removed	Removed	Removed	Removed	Removed
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	AOC1TAA3- CF1-4	AOC1TAA3- CW1-3	AOC1TAA3- CW2-3	AOC1TAA3- CW3-3	AOC1TAA3- CW4-4	AOC1TAA3- CW5-1
Chromium, hexavalent	7199	mg/kg	3.1	31	1.8J	1.5	0.2U	8.6	2.0	7.9^
Chromium, total	6010B	mg/kg	145	145	40.0	77.0	12.0	330^	37.0J	440^
Copper	6010B	mg/kg	145	145	7.5	8.1	9.3	12.0	9.7	15.0
Lead	6010B	mg/kg	36	36	8.9	3.6	1.9	2.9	2.8	6.1
Mercury	7471A	mg/kg	1	1	0.1U	0.1U	0.1U	0.1U	0.11U	0.1U
Molybdenum	6010B	mg/kg	22	22	1.0UJ	1.0U	1.0U	1.0U	1.1U	1.0U
Zinc	6010B	mg/kg	1050	1050	33.0J	35.0	28.0	70.0	36.0	92.0
TEQ Human/Mammal	8290	ng/kg	100	190	NA	NA	NA	NA	NA	NA
TEQ Human/Mammal	4025m	ng/kg	100	190	32.0	>228^	12.0	155	29.0	88.0

Notes:

Shading with ^ indicates the analyte exceeded screening criteria

> = greater than

AOC = area of concern

bgs = below ground surface

FD = field duplicate sample

ID = identification

J = the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample

mg/kg = milligram(s) per kilogram

N= normal sample

NA = not analyzed

ng/kg = nanogram(s) per kilogram

NTCRA = non-time-critical removal action

QA = quality assurance

QC = quality control

TAA = target action area

TEQ = toxicity equivalent

U = the analyte was analyzed for but was not detected exceeding the reported sample quantitation limit

UJ = the analyte concentration was less than the reported sample quantitation limit; however, the reported value is approximate

Table 3-7. AOC9 TAA1 Confirmation Soil Sample Results

Soil NTCRA Completion Report

Topock Compressor Station, Needles, California

				Sample ID	AOC9TAA1- CF1-3	AOC9TAA1- CW1-2	AOC9TAA1- CW2-2	AOC9TAA1- CW2a-1	AOC9TAA1- CW3-2	AOC9TAA1- CW4-2	AOC9TAA1- CW4a-1
				Sample Depth (feet bgs)	3-3.5	2-2.5	2-2.5	1-1.5	2-2.5	2-2.5	1-1.5
				Sample Date	7/17/2023	7/17/2023	7/17/2023	9/8/2023	7/17/2023	7/17/2023	9/8/2023
				Sample QA/QC Type	N	N	N	N	N	N	N
				Sample Location Type	Floor	Wall	Wall	Wall	Wall	Wall	Wall
				Soil Status	In Place	In Place	Removed	In Place	In Place	Removed	In Place
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	AOC9TAA1- CF1-3	AOC9TAA1- CW1-2	AOC9TAA1- CW2-2	AOC9TAA1- CW2a-1	AOC9TAA1- CW3-2	AOC9TAA1- CW4-2	AOC9TAA1- CW4a-1
Chromium, hexavalent	7199	mg/kg	3.1	31	2.0	0.21U	2.7	1.8	1.6	14	1.3
Chromium, total	6010B	mg/kg	145	145	26.0	14.0	54.0	58.0	51.0	130	27.0
Copper	6010B	mg/kg	145	145	9.7	9.0	13.0	16.0	9.2	13.0	25.0
Lead	6010B	mg/kg	36	36	5.7	4.0	13.0	10.0	13.0	15.0	13.0
Mercury	7471A	mg/kg	1	1	0.11U	0.1U	0.1U	0.1U	0.53	0.11	0.1U
Molybdenum	6010B	mg/kg	22	22	1.1U	1.0U	1.0U	1.1U	1.0U	1.1U	1.1U
Zinc	6010B	mg/kg	1050	1050	49.0J	37.0	140	110	36.0	200	73.0
TEQ Human/Mammal	8290	ng/kg	100	190	30.0	3.9	170	99.0	41.0	NA	28.0
TEQ Human/Mammal	4025m	ng/kg	100	190	29.0	25.0	82.0	89.0	73.0	121	23.0

Notes:

Shading with ^ indicates the analyte exceeded screening criteria

AOC = area of concern

bgs = below ground surface

FD = field duplicate sample

ID = identification

J = the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample

mg/kg = milligram(s) per kilogram

N = normal sample

NA = not analyzed

ng/kg = nanogram(s) per kilogram

NTCRA = non-time-critical removal action

QA = quality assurance

QC = quality control

TAA = target action area

TEQ = toxicity equivalent

U = the analyte was analyzed for but was not detected exceeding the reported sample quantitation limit

Table 3-8. AOC10 TAA1 Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

				Sample ID	AOC10TAA1-CF1-3	AOC10TAA1-CF2-0	AOC10TAA1-CF2a-3	AOC10TAA1-CF3-3	AOC10TAA1-CF4-3	AOC10TAA1-CF5-3	AOC10TAA1-CF6-3	AOC10TAA1-CF6-3FD	AOC10TAA1-CF7-3	AOC10TAA1-CF8-3	AOC10TAA1-CF8-3FD	AOC10TAA1-CF9-3
				Sample Depth (feet bgs)	3-3.5	0-0.5	3-3.5	3-3.5	3-3.5	3-3.5	3-3.5	3-3.5	3-3.5	3-3.5	3-3.5	3-3.5
				Sample Date	7/24/2023	7/28/2023	7/24/2023	8/4/2023	8/4/2023	8/4/2023	8/18/2023	8/18/2023	8/18/2023	8/22/2023	8/22/2023	8/30/2023
				Sample QA/QC Type	N	N	N	N	N	N	N	FD	N	N	FD	N
				Sample Location Type	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor
				Soil Status	In Place	Removed	In Place	In Place	In Place	In Place	In Place	In Place	In Place	In Place	In Place	In Place
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	AOC10TAA1-CF1-3	AOC10TAA1-CF2-0	AOC10TAA1-CF2a-3	AOC10TAA1-CF3-3	AOC10TAA1-CF4-3	AOC10TAA1-CF5-3	AOC10TAA1-CF6-3	AOC10TAA1-CF6-3FD	AOC10TAA1-CF7-3	AOC10TAA1-CF8-3	AOC10TAA1-CF8-3FD	AOC10TAA1-CF9-3
Chromium, hexavalent	7199	mg/kg	3.1	31	0.2U	0.26	0.24	0.2U	0.2U	0.2U	0.21U	0.21U	2.5	1.2	0.62	0.21U
Chromium, total	6010B	mg/kg	145	145	12.0	38.0	15.0	8.3	11.0	6.2	10.0	11.0	13.0	5.7J	5.1J	5.1
Copper	6010B	mg/kg	145	145	8.2	27.0	11.0	6.5	5.2	4.1	5.6	5.9	4.1	3.7	3.6	3.4
Lead	6010B	mg/kg	36	36	5.3	23.0	9.0	4.2	2.8	2.7	4.1	4.7	2.8	2.3J	2.2J	3.0
Mercury	7471A	mg/kg	1	1	0.1U	0.25	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	0.11U	0.11U	0.11U
Molybdenum	6010B	mg/kg	22	22	1.0U	5.1U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.1U	1.1U	0.6
Zinc	6010B	mg/kg	1050	1050	23.0	42.0	27.0	21.0	19.0	13.0	19.0	21.0	15.0	12.0J	11.0J	13.0
TEQ Human/Mammal	8290	ng/kg	100	190	77.0	280^	170	8.0	1.5	0.29	4.5	4.8	0.42	0.25	0.21	0.22
TEQ Human/Mammal	4025m	ng/kg	100	190	52.0	114^	97.0	40.0	16.0	5.0	29.0	18.0	10.0	17.0	NA	22.0

Notes:

Shading with ^ indicates the analyte exceeded screening criteria

AOC = area of concern

bgs = below ground surface

FD = field duplicate sample

ID = identification

J = the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample

mg/kg = milligram(s) per kilogram

N = normal sample

NA = not analyzed

ng/kg = nanogram(s) per kilogram

NTCRA = non-time-critical removal action

QA = quality assurance

QC = quality control

TAA = target action area

TEQ = toxicity equivalent

U = the analyte was analyzed for but was not detected exceeding the reported sample quantitation limit

Table 3-8. AOC10 TAA1 Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

				Sample ID	AOC10TAA1- CF10-3	AOC10TAA1- CF11-4	AOC10TAA1- CF12-5	AOC10TAA1- CF13-5	AOC10TAA1- CF14-5	AOC10TAA1- CF14-5FD	AOC10TAA1- CW1-2	AOC10TAA1- CW2-2	AOC10TAA1- CW3-0.5	AOC10TAA1- CW4-2	AOC10TAA1- CW5-2	AOC10TAA1- CW5-2FD
				Sample Depth (feet bgs)	3-3.5	4-4.5	5-5.5	5-5.5	5-5.5	5-5.5	2-2.5	2-2.5	0.5-1	2-2.5	2-2.5	2-2.5
				Sample Date	9/7/2023	9/8/2023	9/13/2023	9/15/2023	9/15/2023	9/15/2023	7/20/2023	7/20/2023	7/28/2023	7/28/2023	7/28/2023	7/28/2023
				Sample QA/QC Type	N	N	N	N	N	FD	N	N	N	N	N	FD
				Sample Location Type	Floor	Floor	Floor	Floor	Floor	Floor	Wall	Wall	Wall	Wall	Wall	Wall
				Soil Status	In Place	In Place	In Place	In Place	In Place	In Place	In Place	In Place	Removed	In Place	In Place	In Place
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	AOC10TAA1- CF10-3	AOC10TAA1- CF11-4	AOC10TAA1- CF12-5	AOC10TAA1- CF13-5	AOC10TAA1- CF14-5	AOC10TAA1- CF14-5FD	AOC10TAA1- CW1-2	AOC10TAA1- CW2-2	AOC10TAA1- CW3-0.5	AOC10TAA1- CW4-2	AOC10TAA1- CW5-2	AOC10TAA1- CW5-2FD
Chromium, hexavalent	7199	mg/kg	3.1	31	0.21U	0.61	0.34	0.85	0.21U	0.22U	0.2U	0.2U	1800^	0.2U	0.2U	0.2U
Chromium, total	6010B	mg/kg	145	145	3.3	18.0	9.8	45.0	17.0	15.0	7.3	9.4	2200^	8.5	8.1J	5.8J
Copper	6010B	mg/kg	145	145	3.5J	8.3	12.0	24.0	13.0	11.0	6.0	7.3	7.5	7.8	6.4	6.1
Lead	6010B	mg/kg	36	36	2.8	4.1	2.4	13.0	9.6J	15.0J	3.6	3.5	4.5	3.9	3.9	3.7
Mercury	7471A	mg/kg	1	1	0.1U	0.11U	0.037J	0.1U	0.1U	0.11U	0.1U	0.1U	0.099U	0.1U	0.1U	0.1U
Molybdenum	6010B	mg/kg	22	22	1.0U	1.2	1.2	1.0U	1.1U	1.1U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U
Zinc	6010B	mg/kg	1050	1050	12.0	31.0	13.0	49.0	42.0	39.0	18.0	19.0	1.0U	14.0	21.0J	17.0J
TEQ Human/Mammal	8290	ng/kg	100	190	0.84U	6.6	13.0	34.0	9.5	15.0	2.6	2.2	1.8	0.43	1.0	0.76
TEQ Human/Mammal	4025m	ng/kg	100	190	3.0	65.0	36.0	86.0	58.0J	NA	13.0	12.0	12.0	4.0	7.0	NA

Notes:

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ID = identification

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mg/kg = milligram(s) per kilogram

N = normal sample

NA = not analyzed

ng/kg = nanogram(s) per kilogram

NTCRA = non-time-critical removal action

QA = quality assurance

QC = quality control

TAA = target action area

TEQ = toxicity equivalent

U = the analyte was analyzed for but was not detected exceeding the reported sample quantitation limit

Table 3-8. AOC10 TAA1 Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

				Sample ID	AOC10TAA1-CW6-2	AOC10TAA1-CW6a-1	AOC10TAA1-CW7-2	AOC10TAA1-CW8-2	AOC10TAA1-CW9-1.5	AOC10TAA1-CW10-1	AOC10TAA1-CW11-2.5	AOC10TAA1-CW12-3	AOC10TAA1-CW12-3FD	AOC10TAA1-CW13-1.5	AOC10TAA1-CW14-2.5	AOC10TAA1-CW15-3
				Sample Depth (feet bgs)	2-2.5	1-1.5	2-2.5	2-2.5	1.5-2	1-1.5	2.5-3	3-3.5	3-3.5	1.5-2	2.5-3	3-3.5
				Sample Date	7/28/2023	10/12/2023	8/4/2023	8/4/2023	8/22/2023	8/31/2023	9/7/2023	9/8/2023	9/8/2023	9/8/2023	9/11/2023	9/13/2023
				Sample QA/QC Type	N	N	N	N	N	N	N	N	FD	N	N	N
				Sample Location Type	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall
				Soil Status	Removed	In Place	In Place	In Place	In Place	In Place	In Place	In Place	In Place	Removed	In Place	In Place
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	AOC10TAA1-CW6-2	AOC10TAA1-CW6a-1	AOC10TAA1-CW7-2	AOC10TAA1-CW8-2	AOC10TAA1-CW9-1.5	AOC10TAA1-CW10-1	AOC10TAA1-CW11-2.5	AOC10TAA1-CW12-3	AOC10TAA1-CW12-3FD	AOC10TAA1-CW13-1.5	AOC10TAA1-CW14-2.5	AOC10TAA1-CW15-3
Chromium, hexavalent	7199	mg/kg	3.1	31	0.41	0.58	0.2U	0.2U	1.9	0.3	0.21U	0.2U	0.2U	4.0 ^	0.21U	0.2U
Chromium, total	6010B	mg/kg	145	145	30.0	30.0	6.9	19.0	29.0J	19.0	17.0	8.5	8.5	150^	6.1	3.5
Copper	6010B	mg/kg	145	145	5.0	6.7	5.3	11.0	8.4	9.1	14.0	4.4	4.2	16.0	4.0	3.5
Lead	6010B	mg/kg	36	36	4.9	4.5	4.4	6.1	4.5J	5.3	2.4	2.5	2.3	24.0	2.4	2.5
Mercury	7471A	mg/kg	1	1	0.1U	0.1U	0.1U	0.1U	0.11U	0.11U	0.1U	0.1U	0.1U	0.11U	0.1U	0.1U
Molybdenum	6010B	mg/kg	22	22	1.0U	1.0U	1.0U	1.0U	1.1U	0.51	1.0U	1.0U	1.0U	1.1U	1.0U	1.0U
Zinc	6010B	mg/kg	1050	1050	52.0	40.0	16.0	34.0	18.0J	30.0	38.0	22.0J	17.0J	32.0	17.0	9.2
TEQ Human/Mammal	8290	ng/kg	100	190	190^	1700^	0.58	47.0	0.28	29.0	0.67	0.89	0.88	230^	3.8	0.69
TEQ Human/Mammal	4025m	ng/kg	100	190	121	96.0J	8.0	46.0	7.0	97.0	36.0J	14.0	NA	114^	10.0	6.0

Notes:

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ID = identification

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mg/kg = milligram(s) per kilogram

N = normal sample

NA = not analyzed

ng/kg = nanogram(s) per kilogram

NTCRA = non-time-critical removal action

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QC = quality control

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TEQ = toxicity equivalent

U = the analyte was analyzed for but was not detected exceeding the reported sample quantitation limit

Table 3-8. AOC10 TAA1 Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

				Sample ID	AOC10TAA1- CW16-3	AOC10TAA1- CW17-3	AOC10TAA1- CW18-3	AOC10TAA1- CW19-3
				Sample Depth (feet bgs)	3-3.5	3-3.5	3-3.5	3-3.5
				Sample Date	9/15/2023	9/15/2023	9/15/2023	10/13/2023
				Sample QA/QC Type	N	N	N	N
				Sample Location Type	Wall	Wall	Wall	Wall
				Soil Status	In Place	In Place	In Place	In Place
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	AOC10TAA1- CW16-3	AOC10TAA1- CW17-3	AOC10TAA1- CW18-3	AOC10TAA1- CW19-3
Chromium, hexavalent	7199	mg/kg	3.1	31	3.2	0.58	1.8	0.2U
Chromium, total	6010B	mg/kg	145	145	160^	30.0	24.0	6.6
Copper	6010B	mg/kg	145	145	72.0	15.0	18.0	4.8
Lead	6010B	mg/kg	36	36	28.0	8.7	7.2	2.3
Mercury	7471A	mg/kg	1	1	0.099U	0.1U	0.11U	0.099U
Molybdenum	6010B	mg/kg	22	22	1.0U	1.0U	1.1U	1.0U
Zinc	6010B	mg/kg	1050	1050	76.0	49.0	67.0	16.0
TEQ Human/Mammal	8290	ng/kg	100	190	160	55.0	21.0	1.1
TEQ Human/Mammal	4025m	ng/kg	100	190	>250^	56.0	50.0J	10.0J

Notes:

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bgs = below ground surface

FD = field duplicate sample

ID = identification

J = the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample

mg/kg = milligram(s) per kilogram

N= normal sample

NA = not analyzed

ng/kg = nanogram(s) per kilogram

NTCRA = non-time-critical removal action

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QC = quality control

TAA = target action area

TEQ = toxicity equivalent

U = the analyte was analyzed for but was not detected exceeding the reported sample quantitation limit

Table 3-9. AOC10 TAA2 Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

				Sample ID	AOC10TAA2-CF3-5	AOC10TAA2-CF4-5	AOC10TAA2-CF4a-1	AOC10TAA2-CF5-5	AOC10TAA2-CF6-5	AOC10TAA2-CF7-5	AOC10TAA2-CF7a-1	AOC10TAA2-CF8-4	AOC10TAA2-CF8a-5	AOC10TAA2-CF9-4	AOC10TAA2-CF10-2	AOC10TAA2-CF11-3.5
				Sample Depth (feet bgs)	5-5.5	5-5.5	1-1.5	5-5.5	5-5.5	5-5.5	1-1.5	4-4.5	5-5.5	4-4.5	2-2.5	3.5-4
				Sample Date	11/9/2022	11/9/2022	4/19/2023	11/9/2022	11/9/2022	11/9/2022	4/19/2023	11/29/2022	3/15/2023	11/29/2022	12/2/2022	12/5/2022
				Sample QA/QC Type	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Location Type	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor
				Soil Status	In Place	Removed	In Place	In Place	In Place	Removed	In Place	Removed	In Place	Removed	In Place	In Place
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	AOC10TAA2-CF3-5	AOC10TAA2-CF4-5	AOC10TAA2-CF4a-1	AOC10TAA2-CF5-5	AOC10TAA2-CF6-5	AOC10TAA2-CF7-5	AOC10TAA2-CF7a-1	AOC10TAA2-CF8-4	AOC10TAA2-CF8a-5	AOC10TAA2-CF9-4	AOC10TAA2-CF10-2	AOC10TAA2-CF11-3.5
Chromium, hexavalent	7199	mg/kg	3.1	31	1.5	0.46	0.66	0.21U	0.21U	0.88	0.21U	73.0^	1.4	57.0^	2.7	0.78
Chromium, total	6010B	mg/kg	145	145	71.0J	34.0	47.0	17.0	18.0	35.0	32.0	4400^	45.0	1700^	99.0J	51.0
Copper	6010B	mg/kg	145	145	14.0	13.0	17.0	11.0	9.3	13.0	14.0	350^	22.0	200^	27.0J	23.0
Lead	6010B	mg/kg	36	36	3.1	2.5	3.1	6.3	4.6	4.6	2.8	150^	3.7	70.0^	12.0J	6.0
Mercury	7471A	mg/kg	1	1	0.1U	0.1U	0.11U	0.1U	0.1U	0.1U	0.11U	0.15U	0.11U	0.14U	0.11U	0.1U
Molybdenum	6010B	mg/kg	22	22	1.0U	1.0U	1.1U	1.0U	1.0U	1.0U	1.1U	7.4U	1.1U	1.4U	1.1UJ	1.0U
Zinc	6010B	mg/kg	1050	1050	44.0J	41.0	44.0	37.0	34.0	45.0	42.0	870	37.0	380	42.0J	91.0
TEQ Human/Mammal	8290	ng/kg	100	190	23.0	9.4	17.0	1.1	1.0	30.0	1.1	NA	4.1	NA	36.0	83.0
TEQ Human/Mammal	4025m	ng/kg	100	190	58.0	34.0	45.0	9.0	12.0	40.0	8.0	189J	16.0J	120	50.0J	50.0

Notes:

Shading with ^ indicates the analyte exceeded screening criteria

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N = normal sample

NA = not analyzed

ng/kg = nanogram(s) per kilogram

NTCRA = non-time-critical removal action

QA = quality assurance

QC = quality control

TAA = target action area

TEQ = toxicity equivalent

U = the analyte was analyzed for but was not detected exceeding the reported sample quantitation limit

UJ = the analyte concentration was less than the reported sample quantitation limit; however, the reported value is approximate

Table 3-9. AOC10 TAA2 Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

				Sample ID	AOC10TAA2- CF12-4	AOC10TAA2- CF13-4	AOC10TAA2- CF14-6	AOC10TAA2- CF14a-6	AOC10TAA2- CF15-6	AOC10TAA2- CF15a-1	AOC10TAA2- CF16-5	AOC10TAA2- CF17-6	AOC10TAA2- CF18-7	AOC10TAA2- CF19-5	AOC10TAA2- CF20-5	AOC10TAA2- CF21-5
				Sample Depth (feet bgs)	4-4.5	4-4.5	6-6.5	6-6.5	6-6.5	1-1.5	5-5.5	6-6.5	7-7.5	5-5.5	5-5.5	5-5.5
				Sample Date	12/21/2022	12/21/2022	1/10/2023	3/8/2023	1/10/2023	4/19/2023	1/10/2023	2/24/2023	3/6/2023	3/7/2023	3/8/2023	3/9/2023
				Sample QA/QC Type	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Location Type	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor
				Soil Status	In Place	In Place	Removed	In Place	Removed	In Place	In Place	In Place	In Place	In Place	In Place	In Place
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	AOC10TAA2- CF12-4	AOC10TAA2- CF13-4	AOC10TAA2- CF14-6	AOC10TAA2- CF14a-6	AOC10TAA2- CF15-6	AOC10TAA2- CF15a-1	AOC10TAA2- CF16-5	AOC10TAA2- CF17-6	AOC10TAA2- CF18-7	AOC10TAA2- CF19-5	AOC10TAA2- CF20-5	AOC10TAA2- CF21-5
Chromium, hexavalent	7199	mg/kg	3.1	31	0.48	0.3	2.4	1.5	1.6	1.2	1.6	0.21U	2.0	1.6	0.21U	0.6
Chromium, total	6010B	mg/kg	145	145	18.0	30.0	260^	43.0	45.0	54.0	67.0	9.6	68.0	49.0	9.0	32.0
Copper	6010B	mg/kg	145	145	6.5	12.0	20.0	13.0	10.0	14.0	22.0	6.0	16.0	9.2	5.0	17.0
Lead	6010B	mg/kg	36	36	3.7	2.7	5.9	7.7	2.2	3.6	5.5	1.9	4.1	3.2	2.5	4.0
Mercury	7471A	mg/kg	1	1	0.1U	0.11U	0.11U	0.11U	0.1U	0.11U	0.1U	0.1U	0.11U	0.11U	0.1U	0.1U
Molybdenum	6010B	mg/kg	22	22	1.0U	1.1U	1.1U	1.1U	1.0U	1.1U	1.0U	1.0U	1.1U	1.1U	1.1U	1.1
Zinc	6010B	mg/kg	1050	1050	23.0	36.0	49.0	43.0	29.0	41.0	60.0	27.0J	32.0	39.0	16.0	44.0J
TEQ Human/Mammal	8290	ng/kg	100	190	21.0	2.1	NA	10.0	17.0	9.1	31.0	1.6	16.0	1.0	2.0	4.2
TEQ Human/Mammal	4025m	ng/kg	100	190	NA	11.0	37.0J	13.0	26.0	28.0	45.0	8.0	50.0	9.0J	4.0	13.0J

Notes:

Shading with ^ indicates the analyte exceeded screening criteria

AOC = area of concern

bgs = below ground surface

FD = field duplicate sample

ID = identification

J = the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample

mg/kg = milligram(s) per kilogram

N = normal sample

NA = not analyzed

ng/kg = nanogram(s) per kilogram

NTCRA = non-time-critical removal action

QA = quality assurance

QC = quality control

TAA = target action area

TEQ = toxicity equivalent

U = the analyte was analyzed for but was not detected exceeding the reported sample quantitation limit

UJ = the analyte concentration was less than the reported sample quantitation limit; however, the reported value is approximate

Table 3-9. AOC10 TAA2 Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

				Sample ID	AOC10TAA2-CF22-7	AOC10TAA2-CF22a-3	AOC10TAA2-CF22a-3FD	AOC10TAA2-CF23-0	AOC10TAA2-CF24-0	AOC10TAA2-CW1-4	AOC10TAA2-CW2-3	AOC10TAA2-CW2a-4	AOC10TAA2-CW3-4	AOC10TAA2-CW4-4	AOC10TAA2-CW5-4	AOC10TAA2-CW6-4
				Sample Depth (feet bgs)	7-7.5	3-3.5	3-3.5	0-0.5	0-0.5	4-4.5	3-3.5	4-4.5	4-4.5	4-4.5	4-4.5	4-4.5
				Sample Date	3/15/2023	5/1/2023	5/1/2023	4/14/2023	4/14/2023	8/21/2022	8/21/2022	9/27/2022	8/21/2022	8/23/2022	8/23/2022	9/21/2022
				Sample QA/QC Type	N	N	FD	N	N	N	N	N	N	N	N	N
				Sample Location Type	Floor	Floor	Floor	Floor	Floor	Wall	Wall	Wall	Wall	Wall	Wall	Wall
				Soil Status	Removed	In Place	In Place	In Place	In Place	Removed	Removed	In Place	Removed	Removed	Removed	Removed
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	AOC10TAA2-CF22-7	AOC10TAA2-CF22a-3	AOC10TAA2-CF22a-3FD	AOC10TAA2-CF23-0	AOC10TAA2-CF24-0	AOC10TAA2-CW1-4	AOC10TAA2-CW2-3	AOC10TAA2-CW2a-4	AOC10TAA2-CW3-4	AOC10TAA2-CW4-4	AOC10TAA2-CW5-4	AOC10TAA2-CW6-4
Chromium, hexavalent	7199	mg/kg	3.1	31	4.0	0.53	0.52	0.21U	0.21U	15.0	18.0	1.7	15.0	49.0^	31.0	4.1
Chromium, total	6010B	mg/kg	145	145	180^	36.0	34.0	28.0J	30.0	5600^	6700^	61.0	4300^	7000^	6500^	9700^
Copper	6010B	mg/kg	145	145	49.0	24.0	24.0	13.0	18.0	450^	180^	14.0	380^	640^	590^	290^
Lead	6010B	mg/kg	36	36	8.4	3.8	2.9	3.1	4.7	110^	75.0^	4.0	85.0^	170^	88.0^	160^
Mercury	7471A	mg/kg	1	1	0.1U	0.11U	0.11U	0.1U	0.1U	0.22J	0.11U	0.11U	0.12J	0.15	0.11U	0.27
Molybdenum	6010B	mg/kg	22	22	1.0U	1.1U	1.1U	1.0U	1.0U	5.1U	5.6U	1.0U	5.2U	7.0	5.5U	6.0
Zinc	6010B	mg/kg	1050	1050	110	41.0	34.0	40.0	51.0	520	320	47.0	390	600	790	340
TEQ Human/Mammal	8290	ng/kg	100	190	NA	1.0	1.6	1.2	2.8	NA	NA	19.0	NA	NA	NA	1100^
TEQ Human/Mammal	4025m	ng/kg	100	190	58.0J	5.0	2.0	3.0	10.0	194^	181	44.0J	164	>251^	>251^	>253^

Notes:

Shading with ^ indicates the analyte exceeded screening criteria

AOC = area of concern

bgs = below ground surface

FD = field duplicate sample

ID = identification

J = the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample

mg/kg = milligram(s) per kilogram

N = normal sample

NA = not analyzed

ng/kg = nanogram(s) per kilogram

NTCRA = non-time-critical removal action

QA = quality assurance

QC = quality control

TAA = target action area

TEQ = toxicity equivalent

U = the analyte was analyzed for but was not detected exceeding the reported sample quantitation limit

UJ = the analyte concentration was less than the reported sample quantitation limit; however, the reported value is approximate

Table 3-9. AOC10 TAA2 Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

				Sample ID	AOC10TAA2-CW6-4FD	AOC10TAA2-CW7-4	AOC10TAA2-CW7-4FD	AOC10TAA2-CW8-4	AOC10TAA2-CW9-5	AOC10TAA2-CW10-5	AOC10TAA2-CW10a-5	AOC10TAA2-CW11-4	AOC10TAA2-CW12-3	AOC10TAA2-CW12a-5	AOC10TAA2-CW12b-5	AOC10TAA2-CW13-3
				Sample Depth (feet bgs)	4-4.5	4-4.5	4-4.5	4-4.5	5-5.5	5-5.5	5-5.5	4-4.5	3-3.5	5-5.5	5-5.5	3-3.5
				Sample Date	9/21/2022	9/27/2022	9/27/2022	9/27/2022	10/5/2022	10/5/2022	4/19/2023	10/5/2022	11/18/2022	3/15/2023	5/1/2023	11/18/2022
				Sample QA/QC Type	FD	N	FD	N	N	N	N	N	N	N	N	N
				Sample Location Type	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall
				Soil Status	Removed	In Place	In Place	In Place	In Place	Removed	In Place	In Place	Removed	Removed	In Place	Removed
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	AOC10TAA2-CW6-4FD	AOC10TAA2-CW7-4	AOC10TAA2-CW7-4FD	AOC10TAA2-CW8-4	AOC10TAA2-CW9-5	AOC10TAA2-CW10-5	AOC10TAA2-CW10a-5	AOC10TAA2-CW11-4	AOC10TAA2-CW12-3	AOC10TAA2-CW12a-5	AOC10TAA2-CW12b-5	AOC10TAA2-CW13-3
Chromium, hexavalent	7199	mg/kg	3.1	31	5.0	0.21U	0.21U	0.21U	0.3	4.6	7.3	2.5	7.0	5.6	0.25	9.0
Chromium, total	6010B	mg/kg	145	145	9600^	30.0J	17.0J	16.0	22.0	64.0	49.0	100	3500^	160^	31.0	2600^
Copper	6010B	mg/kg	145	145	310^	11.0	9.1	9.8	12.0	11.0	14.0	16.0	340^	18.0	18.0	470^
Lead	6010B	mg/kg	36	36	180^	3.0	2.7	2.1	2.8	4.2	7.1	2.7	110^	2.8	2.2	150^
Mercury	7471A	mg/kg	1	1	0.25	0.11U	0.11U	0.11U	0.1U	0.11U	0.12U	0.11U	0.1U	0.11U	0.11U	0.12U
Molybdenum	6010B	mg/kg	22	22	6.6	1.1U	1.1U	1.1U	1.0U	1.1U	1.2U	1.1U	5.2	1.1U	1.1U	7.1
Zinc	6010B	mg/kg	1050	1050	410	38.0	34.0	34.0	40.0	42.0	46.0	58.0	310	42.0	46.0	290
TEQ Human/Mammal	8290	ng/kg	100	190	780^	0.63	0.66	1.3	1.9	4.5	0.83	3.0	NA	NA	0.51	NA
TEQ Human/Mammal	4025m	ng/kg	100	190	183	11.0	9.0	14.0	8.0	15.0	7.0	11.0	223J^	12.0J	7.0	170J

Notes:

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mg/kg = milligram(s) per kilogram

N = normal sample

NA = not analyzed

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QA = quality assurance

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TAA = target action area

TEQ = toxicity equivalent

U = the analyte was analyzed for but was not detected exceeding the reported sample quantitation limit

UJ = the analyte concentration was less than the reported sample quantitation limit; however, the reported value is approximate

Table 3-9. AOC10 TAA2 Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

				Sample ID	AOC10TAA2- CW14-3	AOC10TAA2- CW15-5	AOC10TAA2- CW15-5FD	AOC10TAA2- CW16-6	AOC10TAA2- CW16a-4	AOC10TAA2- CW16a-FD-4	AOC10TAA2- CW17-4	AOC10TAA2- CW18-5	AOC10TAA2- CW18a-5	AOC10TAA2- CW19-5	AOC10TAA2- CW20-1	AOC10TAA2- CW20-1FD
				Sample Depth (feet bgs)	3-3.5	5-5.5	5-5.5	6-6.5	4-4.5	4-4.5	4-4.5	5-5.5	5-5.5	5-5.5	1-1.5	1-1.5
				Sample Date	11/18/2022	11/18/2022	11/18/2022	11/18/2022	11/30/2022	11/30/2022	11/30/2022	11/30/2022	5/1/2023	11/30/2022	12/5/2022	12/5/2022
				Sample QA/QC Type	N	N	FD	N	N	FD	N	N	N	N	N	FD
				Sample Location Type	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall
				Soil Status	Removed	Removed	Removed	Removed	In Place	In Place	In Place	Removed	In Place	Removed	Removed	Removed
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	AOC10TAA2- CW14-3	AOC10TAA2- CW15-5	AOC10TAA2- CW15-5FD	AOC10TAA2- CW16-6	AOC10TAA2- CW16a-4	AOC10TAA2- CW16a-FD-4	AOC10TAA2- CW17-4	AOC10TAA2- CW18-5	AOC10TAA2- CW18a-5	AOC10TAA2- CW19-5	AOC10TAA2- CW20-1	AOC10TAA2- CW20-1FD
Chromium, hexavalent	7199	mg/kg	3.1	31	0.99	1.6	1.7	5.5	0.34	0.35	0.2U	2.6	0.22U	5.4	6.8^	8.2^
Chromium, total	6010B	mg/kg	145	145	35.0	46.0	48.0	370^	34.0	35.0	26.0	190^	23.0	270^	280^	290^
Copper	6010B	mg/kg	145	145	11.0	16.0	16.0	17.0	14.0	13.0	13.0	19.0	15.0	29.0	86.0	81.0
Lead	6010B	mg/kg	36	36	3.1	3.5	4.1	7.9	2.2	2.7	1.8	6.5J	2.0	5.1	14.0	16.0
Mercury	7471A	mg/kg	1	1	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	0.11U	0.1U	0.1U	0.1U
Molybdenum	6010B	mg/kg	22	22	1.0U	1.0U	1.0U	1.0U	1.1U	1.1U	1.0U	1.0UJ	1.1U	1.0U	1.0U	1.0U
Zinc	6010B	mg/kg	1050	1050	49.0	71.0	70.0	50.0	37.0	41.0	41.0	48.0J	44.0	45.0	250	230
TEQ Human/Mammal	8290	ng/kg	100	190	9.2	NA	NA	NA	2.0	2.1	0.81	NA	0.23	NA	NA	1100^
TEQ Human/Mammal	4025m	ng/kg	100	190	34.0	67.0J	49.0J	77.0J	18.0	15.0	17.0	60.0	7.0	95.0	139J^	>222^

Notes:

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AOC = area of concern

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mg/kg = milligram(s) per kilogram

N = normal sample

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NTCRA = non-time-critical removal action

QA = quality assurance

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TAA = target action area

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Table 3-9. AOC10 TAA2 Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

				Sample ID	AOC10TAA2-CW21-2	AOC10TAA2-CW21a-3	AOC10TAA2-CW22-2	AOC10TAA2-CW22a-3	AOC10TAA2-CW23-3	AOC10TAA2-CW24-2	AOC10TAA2-CW25-2	AOC10TAA2-CW25-2 FD	AOC10TAA2-CW25a-3	AOC10TAA2-CW26-2	AOC10TAA2-CW26a-2	AOC10TAA2-CW26a-2FD
				Sample Depth (feet bgs)	2-2.5	3-3.5	2-2.5	3-3.5	3-3.5	2-2.5	2-2.5	2-2.5	3-3.5	2-2.5	2-2.5	2-2.5
				Sample Date	12/5/2022	3/6/2023	12/5/2022	3/6/2023	12/6/2022	12/21/2022	12/21/2022	12/21/2022	1/10/2023	12/21/2022	5/16/2023	5/16/2023
				Sample QA/QC Type	N	N	N	N	N	N	N	FD	N	N	N	FD
				Sample Location Type	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall
				Soil Status	Removed	In Place	Removed	In Place	Removed	In Place	Removed	Removed	In Place	Removed	In Place	In Place
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	AOC10TAA2-CW21-2	AOC10TAA2-CW21a-3	AOC10TAA2-CW22-2	AOC10TAA2-CW22a-3	AOC10TAA2-CW23-3	AOC10TAA2-CW24-2	AOC10TAA2-CW25-2	AOC10TAA2-CW25-2 FD	AOC10TAA2-CW25a-3	AOC10TAA2-CW26-2	AOC10TAA2-CW26a-2	AOC10TAA2-CW26a-2FD
Chromium, hexavalent	7199	mg/kg	3.1	31	2.6	0.25	4.6	0.22U	40.0^	1.1	5.2J	4.2J	0.92	3.9	0.23U	0.22U
Chromium, total	6010B	mg/kg	145	145	380^	32.0	260^	32.0	19000^	34.0	500^	580^	55.0	88.0	37.0J	58.0J
Copper	6010B	mg/kg	145	145	88.0	13.0	77.0	26.0	720^	54.0	150^	130	58.0	64.0	22.0	18.0
Lead	6010B	mg/kg	36	36	19.0	4.9	12.0	3.0	280^	5.0	9.3J	13.0J	3.9	20.0	3.2	2.7
Mercury	7471A	mg/kg	1	1	0.1U	0.1U	0.11U	0.11U	0.25	0.1U	0.11U	0.11U	0.1U	0.1U	0.11U	0.11U
Molybdenum	6010B	mg/kg	22	22	1.0U	1.1U	1.1U	1.1U	6.0U	1.0U	1.1U	2.0	1.0U	2.2	4.5	7.5
Zinc	6010B	mg/kg	1050	1050	120	51.0	120	50.0	1000	41.0	140	160	38.0	91.0	45.0J	56.0J
TEQ Human/Mammal	8290	ng/kg	100	190	NA	1.3	NA	9.8	NA	26.0	NA	NA	1.2	87.0	0.57	0.4
TEQ Human/Mammal	4025m	ng/kg	100	190	100	12.0	75.0J	27.0J	>222^	NA	62.0J	60.0J	9.0	49.0	12.0	16.0

Notes:

Shading with ^ indicates the analyte exceeded screening criteria

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FD = field duplicate sample

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Table 3-9. AOC10 TAA2 Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

				Sample ID	AOC10TAA2-CW27-2	AOC10TAA2-CW28-2	AOC10TAA2-CW28a-3	AOC10TAA2-CW29-2	AOC10TAA2-CW29a-4	AOC10TAA2-CW30-5	AOC10TAA2-CW30a-5	AOC10TAA2-CW30a-5FD	AOC10TAA2-CW31-4	AOC10TAA2-CW32-2	AOC10TAA2-CW33-2	AOC10TAA2-CW33-2FD	
				Sample Depth (feet bgs)	2-2.5	2-2.5	3-3.5	2-2.5	4-4.5	5-5.5	5-5.5	5-5.5	4-4.5	2-2.5	2-2.5	2-2.5	
				Sample Date	12/21/2022	12/21/2022	2/24/2023	12/21/2022	3/6/2023	1/10/2023	4/19/2023	4/19/2023	1/10/2023	1/10/2023	1/10/2023	1/10/2023	
				Sample QA/QC Type	N	N	N	N	N	N	N	FD	N	N	N	N	FD
				Sample Location Type	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall
				Soil Status	In Place	Removed	In Place	Removed	In Place	Removed	In Place	In Place	In Place	In Place	In Place	In Place	In Place
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	AOC10TAA2-CW27-2	AOC10TAA2-CW28-2	AOC10TAA2-CW28a-3	AOC10TAA2-CW29-2	AOC10TAA2-CW29a-4	AOC10TAA2-CW30-5	AOC10TAA2-CW30a-5	AOC10TAA2-CW30a-5FD	AOC10TAA2-CW31-4	AOC10TAA2-CW32-2	AOC10TAA2-CW33-2	AOC10TAA2-CW33-2FD	
Chromium, hexavalent	7199	mg/kg	3.1	31	0.2U	24	0.5	13	0.21	1.2	1.6	1.5	0.49	0.24	1.7	1.8	
Chromium, total	6010B	mg/kg	145	145	6.8	580^	42.0	380^	40.0	440^	54.0	52.0	31.0	37.0	110	130	
Copper	6010B	mg/kg	145	145	3.6	100	43.0	80.0	23.0	21.0	16.0	16.0	15.0	27.0	17.0	31.0	
Lead	6010B	mg/kg	36	36	7.2	46.0J^	5.4	22.0	9.1	15.0	3.3	3.5	6.4	6.2	4.9	5.9	
Mercury	7471A	mg/kg	1	1	0.1U	0.17	0.11U	0.1U	0.1U	0.1U	0.11U	0.11U	0.1U	0.1U	0.1U	0.1U	
Molybdenum	6010B	mg/kg	22	22	1.0U	1.0	1.1U	1.0U	1.0U	1.0U	1.1U	1.1U	1.0U	1.0U	1.0U	1.0U	
Zinc	6010B	mg/kg	1050	1050	16.0	79.0J	46.0	78.0	48.0	63.0	56.0	53.0	55.0	44.0	41.0	47.0	
TEQ Human/Mammal	8290	ng/kg	100	190	0.88	NA	17.0	NA	36.0	NA	9.7	9.8	6.8	12.0	2.7	2.9	
TEQ Human/Mammal	4025m	ng/kg	100	190	NA	NA	25.0	55.0	55.0	66.0J	25.0	25.0	35.0	67.0	40.0	39.0	

Notes:

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Table 3-9. AOC10 TAA2 Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

				Sample ID	AOC10TAA2-CW34-3	AOC10TAA2-CW35-3	AOC10TAA2-CW35-3FD	AOC10TAA2-CW36-2	AOC10TAA2-CW37-3	AOC10TAA2-CW38-4	AOC10TAA2-CW39-2	AOC10TAA2-CW40-6	AOC10TAA2-CW41-2	AOC10TAA2-CW41-2FD
				Sample Depth (feet bgs)	3-3.5	3-3.5	3-3.5	2-2.5	3-3.5	4-4.5	2-2.5	6-6.5	2-2.5	2-2.5
				Sample Date	2/24/2023	3/8/2023	3/8/2023	3/8/2023	3/9/2023	3/10/2023	3/10/2023	3/10/2023	3/15/2023	3/15/2023
				Sample QA/QC Type	N	N	FD	N	N	N	N	N	N	FD
				Sample Location Type	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall
				Soil Status	In Place	In Place	In Place	In Place	In Place	In Place	In Place	In Place	In Place	In Place
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	AOC10TAA2-CW34-3	AOC10TAA2-CW35-3	AOC10TAA2-CW35-3FD	AOC10TAA2-CW36-2	AOC10TAA2-CW37-3	AOC10TAA2-CW38-4	AOC10TAA2-CW39-2	AOC10TAA2-CW40-6	AOC10TAA2-CW41-2	AOC10TAA2-CW41-2FD
Chromium, hexavalent	7199	mg/kg	3.1	31	0.82	0.76	0.93	0.92	0.69	0.34	0.22U	1.9	0.22U	0.22U
Chromium, total	6010B	mg/kg	145	145	35.0	37.0	37.0	40.0	35.0	34.0	31.0	55.0	21.0	24.0
Copper	6010B	mg/kg	145	145	36.0	21.0	24.0	11.0	21.0	17.0	26.0	19.0	12.0	13.0
Lead	6010B	mg/kg	36	36	4.6	3.3	2.8	4.6	3.5	3.1	3.4	3.4	2.2	2.2
Mercury	7471A	mg/kg	1	1	0.1U	0.11U	0.19	0.1U	0.1U	0.11U	0.11U	0.11U	0.11U	0.11U
Molybdenum	6010B	mg/kg	22	22	5.8	1.1U	1.1U	1.0U	1.1U	1.1U	1.1U	1.1U	1.1U	1.1U
Zinc	6010B	mg/kg	1050	1050	48.0	46.0	46.0	37.0	38.0	51.0	54.0	48.0	41.0	44.0
TEQ Human/Mammal	8290	ng/kg	100	190	55.0	3.8	3.4	1.5	2.2	1.6	3.3	13.0	1.2	1.8
TEQ Human/Mammal	4025m	ng/kg	100	190	65.0	3.0J	NA	6.0J	4.0	6.0	10.0	23.0J	2.0	3.0

Notes:

Shading with ^ indicates the analyte exceeded screening criteria

AOC = area of concern

bgs = below ground surface

FD = field duplicate sample

ID = identification

J = the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample

mg/kg = milligram(s) per kilogram

N= normal sample

NA = not analyzed

ng/kg = nanogram(s) per kilogram

NTCRA = non-time-critical removal action

QA = quality assurance

QC = quality control

TAA = target action area

TEQ = toxicity equivalent

U = the analyte was analyzed for but was not detected exceeding the reported sample quantitation limit

UJ = the analyte concentration was less than the reported sample quantitation limit; however, the reported value is approximate

Table 3-10. AOC10 TAA3 Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

				Sample ID	AOC10TAA3- CF1-2	AOC10TAA3- CW1-1	AOC10TAA3- CW2-2	AOC10TAA3- CW3-2	AOC10TAA3- CW4-1
				Sample Depth (feet bgs)	2-2.5	1-1.5	2-2.5	2-2.5	1-1.5
				Sample Date	8/11/2022	8/11/2022	8/11/2022	8/11/2022	8/11/2022
				Sample QA/QC Type	N	N	N	N	N
				Sample Location Type	Floor	Wall	Wall	Wall	Wall
				Soil Status	In Place	In Place	In Place	In Place	In Place
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	AOC10TAA3- CF1-2	AOC10TAA3- CW1-1	AOC10TAA3- CW2-2	AOC10TAA3- CW3-2	AOC10TAA3- CW4-1
Chromium, hexavalent	7199	mg/kg	3.1	31	0.21U	0.31	0.21U	0.21U	0.45
Chromium, total	6010B	mg/kg	145	145	46.0J	26.0J	15.0J	18.0J	26.0J
Copper	6010B	mg/kg	145	145	16.0J	16.0J	9.8J	12.0J	25.0J
Lead	6010B	mg/kg	36	36	2.2J	6.9J	2.2J	2.4J	5.2J
Mercury	7471A	mg/kg	1	1	0.1U	0.1U	0.1U	0.1U	0.1U
Molybdenum	6010B	mg/kg	22	22	1.0U	1.0U	1.0U	1.0U	2.1
Zinc	6010B	mg/kg	1050	1050	49.0J	51.0J	42.0J	50.0J	50.0J
TEQ Human/Mammal	8290	ng/kg	100	190	3.5	29.0	3.0	0.66	31.0
TEQ Human/Mammal	4025m	ng/kg	100	190	7.0	61.0	10.0	4.0	73.0

Notes:

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ID = identification

J = the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample

mg/kg = milligram(s) per kilogram

N = normal sample

ng/kg = nanogram(s) per kilogram

NTCRA = non-time-critical removal action

QA = quality assurance

QC = quality control

TAA = target action area

TEQ = toxicity equivalent

U = the analyte was analyzed for but was not detected exceeding the reported sample quantitation limit

Table 3-11. AOC10 TAA4 Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

				Sample ID	AOC10TAA4-CF1-5	AOC10TAA4-CF2-5	AOC10TAA4-CF2a-7	AOC10TAA4-CF3-3	AOC10TAA4-CF4-3	AOC10TAA4-CF5-0	AOC10TAA4-CF6-2	AOC10TAA4-CF7-2	AOC10TAA4-CF8-2	AOC10TAA4-CW1-3	AOC10TAA4-CW2-3	AOC10TAA4-CW3-3
				Sample Depth (feet bgs)	5-5.5	5-5.5	7-7.5	3-3.5	3-3.5	0-0.5	2-2.5	2-2.5	2-2.5	3-3.5	3-3.5	3-3.5
				Sample Date	8/11/2022	12/14/2022	4/13/2023	12/15/2022	12/15/2022	4/13/2023	5/22/2023	5/19/2023	5/19/2023	8/11/2022	8/11/2022	8/11/2022
				Sample QA/QC Type	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Location Type	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Wall	Wall	Wall
				Soil Status	Removed	Removed	In Place	Removed	In Place	Removed	In Place	In Place	Removed	Removed	Removed	Removed
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	AOC10TAA4-CF1-5	AOC10TAA4-CF2-5	AOC10TAA4-CF2a-7	AOC10TAA4-CF3-3	AOC10TAA4-CF4-3	AOC10TAA4-CF5-0	AOC10TAA4-CF6-2	AOC10TAA4-CF7-2	AOC10TAA4-CF8-2	AOC10TAA4-CW1-3	AOC10TAA4-CW2-3	AOC10TAA4-CW3-3
Chromium, hexavalent	7199	mg/kg	3.1	31	0.7	1.4	0.22U	1.0	0.21U	0.32	0.21U	0.47	2.4	0.67	0.42	8.2J
Chromium, total	6010B	mg/kg	145	145	28.0J	49.0	21.0J	34.0	14.0	23.0	23.0	27.0	340^	43.0J	32.0J	320J^
Copper	6010B	mg/kg	145	145	13.0	15.0	13.0	11.0	8.6	15.0	12.0	14.0	130	23.0	21.0	49.0
Lead	6010B	mg/kg	36	36	4.0J	13.0	3.4J	7.1	2.9	4.5	3.5	3.9	17.0	33.0J	22.0J	25.0J
Mercury	7471A	mg/kg	1	1	0.11U	0.11U	0.11U	0.11U	0.1U	0.1U	0.1U	0.11U	0.25	0.11U	0.11U	0.11U
Molybdenum	6010B	mg/kg	22	22	1.1UJ	1.1U	1.1UJ	1.1U	1.0U	1.0U	1.0U	1.1U	1.0U	1.1UJ	1.1UJ	1.1UJ
Zinc	6010B	mg/kg	1050	1050	40.0J	54.0	51.0J	31.0	22.0	42.0	38.0	41.0	250	55.0J	56.0J	100J
TEQ Human/Mammal	8290	ng/kg	100	190	NA	300^	1.5	1.7	0.89	2.8	12.0	19.0	7500^	43.0	NA	NA
TEQ Human/Mammal	4025m	ng/kg	100	190	6.0J	77.0J	2.0	26.0	14.0	5.0	45.0	95.0	NA	58.0	102	125J

Notes:

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FD = field duplicate sample

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mg/kg = milligram(s) per kilogram

N = normal sample

NA = not analyzed

ng/kg = nanogram(s) per kilogram

NTCRA = non-time-critical removal action

QA = quality assurance

QC = quality control

TAA = target action area

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UJ = the analyte concentration was less than the reported sample quantitation limit; however, the reported value is approximate

Table 3-11. AOC10 TAA4 Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

				Sample ID	AOC10TAA4-CW3-3FD	AOC10TAA4-CW4-3	AOC10TAA4-CW5-3	AOC10TAA4-CW6-3	AOC10TAA4-CW7-2	AOC10TAA4-CW8-2	AOC10TAA4-CW9-1	AOC10TAA4-CW10-3	AOC10TAA4-CW11-3	AOC10TAA4-CW12-2	AOC10TAA4-CW12a-1	AOC10TAA4-CW12b-1
				Sample Depth (feet bgs)	3-3.5	3-3.5	3-3.5	3-3.5	2-2.5	2-2.5	1-1.5	3-3.5	3-3.5	2-2.5	1-1.5	1-1.5
				Sample Date	8/11/2022	8/11/2022	8/11/2022	12/6/2022	12/14/2022	12/14/2022	12/14/2022	12/14/2022	12/14/2022	12/14/2022	12/15/2022	4/13/2023
				Sample QA/QC Type	FD	N	N	N	N	N	N	N	N	N	N	N
				Sample Location Type	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall
				Soil Status	Removed	Removed	Removed	In Place	In Place	In Place	In Place	In Place	In Place	Removed	Removed	In Place
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	AOC10TAA4-CW3-3FD	AOC10TAA4-CW4-3	AOC10TAA4-CW5-3	AOC10TAA4-CW6-3	AOC10TAA4-CW7-2	AOC10TAA4-CW8-2	AOC10TAA4-CW9-1	AOC10TAA4-CW10-3	AOC10TAA4-CW11-3	AOC10TAA4-CW12-2	AOC10TAA4-CW12a-1	AOC10TAA4-CW12b-1
Chromium, hexavalent	7199	mg/kg	3.1	31	6.2J	1.6	9.9	8.3	0.24	0.23U	0.22	0.54	3.0	4.9	4.8^	0.22U
Chromium, total	6010B	mg/kg	145	145	260J^	56.0J	530J^	400^	19.0	24.0	17.0	21.0J	79.0	240^	120	23.0
Copper	6010B	mg/kg	145	145	46.0	23.0	75.0	60.0	19.0	20.0	12.0	17.0	16.0	38.0	23.0	14.0
Lead	6010B	mg/kg	36	36	25.0J	32.0J	29.0J	20.0	15.0	19.0	25.0	10.0J	11.0	26.0	27.0	3.1
Mercury	7471A	mg/kg	1	1	0.11U	0.11U	0.1U	0.12U	0.11U	0.11U	0.11U	0.11U	0.11U	0.12U	0.11U	0.11U
Molybdenum	6010B	mg/kg	22	22	1.1UJ	1.1UJ	1.1UJ	1.2UJ	1.1U	1.1U	1.1U	1.1UJ	1.1U	1.2U	1.1U	1.1U
Zinc	6010B	mg/kg	1050	1050	100J	61.0J	150J	130	47.0	62.0	49.0	52.0J	60.0	120	69.0	46.0
TEQ Human/Mammal	8290	ng/kg	100	190	NA	NA	1300^	880^	9.9	16.0	12.0	12.0	68.0	NA	190^	0.76
TEQ Human/Mammal	4025m	ng/kg	100	190	88.0J	81.0	>241^	>222^	40.0	48.0	62.0	53.0	76.0	>171^	112^	1.0U

Notes:

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mg/kg = milligram(s) per kilogram

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NA = not analyzed

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Table 3-11. AOC10 TAA4 Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

				Sample ID	AOC10TAA4- CW12b-1FD	AOC10TAA4- CW13-2	AOC10TAA4- CW14-1	AOC10TAA4- CW15-1	AOC10TAA4- CW16-1	AOC10TAA4- CW16a-1	AOC10TAA4- CW16b-2.5	AOC10TAA4- CW16b-2.5FD	AOC10TAA4- CW16C-2	AOC10TAA4- CW17-1	AOC10TAA4- CW17-1FD	AOC10TAA4- CW17a-1
				Sample Depth (feet bgs)	1-1.5	2-2.5	1-1.5	1-1.5	1-1.5	1-1.5	2.5-3	2.5-3	2-2.5	1-1.5	1-1.5	1-1.5
				Sample Date	4/13/2023	12/15/2022	12/15/2022	12/15/2022	12/15/2022	4/13/2023	5/19/2023	5/19/2023	6/14/2023	12/15/2022	12/15/2022	4/13/2023
				Sample QA/QC Type	FD	N	N	N	N	N	N	FD	N	N	FD	N
				Sample Location Type	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall
				Soil Status	In Place	In Place	In Place	In Place	Removed	Removed	Removed	Removed	In Place	Removed	Removed	In Place
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	AOC10TAA4- CW12b-1FD	AOC10TAA4- CW13-2	AOC10TAA4- CW14-1	AOC10TAA4- CW15-1	AOC10TAA4- CW16-1	AOC10TAA4- CW16a-1	AOC10TAA4- CW16b-2.5	AOC10TAA4- CW16b-2.5FD	AOC10TAA4- CW16C-2	AOC10TAA4- CW17-1	AOC10TAA4- CW17-1FD	AOC10TAA4- CW17a-1
Chromium, hexavalent	7199	mg/kg	3.1	31	0.22U	1.9	0.75	0.27	5.0^	1.6	2.3	2.1	0.37	3.9J^	1.0J	0.21U
Chromium, total	6010B	mg/kg	145	145	23.0	70.0	28.0	26.0	78.0	48.0	170^	150^	39.0J	14.0J	42.0J	23.0
Copper	6010B	mg/kg	145	145	16.0	21.0	14.0	14.0	20.0	31.0	40.0	34.0	16.0	99.0J	21.0J	15.0
Lead	6010B	mg/kg	36	36	3.2	36.0	16.0	10.0	16.0	12.0	6.8	5.9	3.5J	12.0J	3.7J	2.7
Mercury	7471A	mg/kg	1	1	0.11U	0.11U	0.11U	0.1U	0.1U	0.11U	0.11U	0.1U	0.1U	0.1U	0.11U	0.11U
Molybdenum	6010B	mg/kg	22	22	1.1U	1.1U	1.1U	1.1U	1.1U	1.1U	1.0U	1.0U	1.0UJ	1.0U	1.0U	1.1U
Zinc	6010B	mg/kg	1050	1050	49.0	60.0	43.0	46.0	48.0	75.0	140	130	38.0J	32.0J	77.0J	50.0
TEQ Human/Mammal	8290	ng/kg	100	190	0.82	210^	52.0	37.0	60.0	130^	600^	520^	17.0	140^	360^	0.67
TEQ Human/Mammal	4025m	ng/kg	100	190	1.0U	168	141^	75.0	81.0	63.0	>311^	NA	NA	159^	>226^	1.0

Notes:

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Table 3-11. AOC10 TAA4 Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

				Sample ID	AOC10TAA4- CW18-1	AOC10TAA4- CW19-4	AOC10TAA4- CW20-1	AOC10TAA4- CW21-1
				Sample Depth (feet bgs)	1-1.5	4-4.5	1-1.5	1-1.5
				Sample Date	5/22/2023	5/22/2023	5/22/2023	5/22/2023
				Sample QA/QC Type	N	N	N	N
				Sample Location Type	Wall	Wall	Wall	Wall
				Soil Status	In Place	In Place	In Place	In Place
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	AOC10TAA4- CW18-1	AOC10TAA4- CW19-4	AOC10TAA4- CW20-1	AOC10TAA4- CW21-1
Chromium, hexavalent	7199	mg/kg	3.1	31	0.99	0.51	0.88	0.94
Chromium, total	6010B	mg/kg	145	145	41.0	26.0	39.0	39.0
Copper	6010B	mg/kg	145	145	13.0	24.0	15.0	17.0
Lead	6010B	mg/kg	36	36	6.3	4.2	8.6	12.0
Mercury	7471A	mg/kg	1	1	0.1U	0.1U	0.11U	0.1U
Molybdenum	6010B	mg/kg	22	22	1.0U	1.0U	1.1U	1.1U
Zinc	6010B	mg/kg	1050	1050	40.0	69.0	52.0	47.0
TEQ Human/Mammal	8290	ng/kg	100	190	16.0	49.0	17.0	21.0
TEQ Human/Mammal	4025m	ng/kg	100	190	83.0	109	49.0	74.0

Notes:

Shading with ^ indicates the analyte exceeded screening criteria

AOC = area of concern

bgs = below ground surface

FD = field duplicate sample

ID = identification

J = the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample

mg/kg = milligram(s) per kilogram

N= normal sample

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NTCRA = non-time-critical removal action

QA = quality assurance

QC = quality control

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UJ = the analyte concentration was less than the reported sample quantitation limit; however, the reported value is approximate

Table 3-12. AOC11 TAA1 Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

				Sample ID	AOC11TAA1-CF-1-7.5	AOC11TAA1-CF-2-7.5	AOC11TAA1-CF-2-7.5FD	AOC11TAA1-CF-3-10	AOC11TAA1-CF4-7	AOC11TAA1-CF5-7	AOC11TAA1-CF6-7	AOC11TAA1-CF7-7	AOC11TAA1-CW-1-3	AOC11TAA1-CW-3-6	AOC11TAA1-CW-5-6	AOC11TAA1-CW5a-4
				Sample Depth (feet bgs)	7.5-8	7.5-8	7.5-8	10-10.5	7-7.5	7-7.5	7-7.5	7-7.5	3-3.5	6-6.5	6-6.5	4-4.5
				Sample Date	7/28/2022	7/28/2022	7/28/2022	7/28/2022	9/15/2022	9/15/2022	9/15/2022	9/15/2022	7/26/2022	7/26/2022	7/26/2022	9/15/2022
				Sample QA/QC Type	N	N	FD	N	N	N	N	N	N	N	N	N
				Sample Location Type	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Wall	Wall	Wall	Wall
				Soil Status	In Place	In Place	In Place	In Place	In Place	In Place	In Place	In Place	Removed	Removed	Removed	In Place
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	AOC11TAA1-CF-1-7.5	AOC11TAA1-CF-2-7.5	AOC11TAA1-CF-2-7.5FD	AOC11TAA1-CF-3-10	AOC11TAA1-CF4-7	AOC11TAA1-CF5-7	AOC11TAA1-CF6-7	AOC11TAA1-CF7-7	AOC11TAA1-CW-1-3	AOC11TAA1-CW-3-6	AOC11TAA1-CW-5-6	AOC11TAA1-CW5a-4
Chromium, hexavalent	7199	mg/kg	3.1	31	0.23	0.69	0.72	0.43	0.46	0.91	0.36	0.22	2.9	1.3	3.5	0.45
Chromium, total	6010B	mg/kg	145	145	29.0	46.0J	37.0J	33.0	20.0	20.0	19.0	21.0	92.0	29.0	100	26.0
Copper	6010B	mg/kg	145	145	18.0	23.0J	17.0J	14.0	9.9	7.0	10.0	16.0	34.0	14.0	53.0	7.9
Lead	6010B	mg/kg	36	36	3.6	3.7	3.4	3.6	3.4	5.4	3.1	2.9	5.2J	11.0J	14.0J	6.1
Mercury	7471A	mg/kg	1	1	0.1U	0.1U	0.11U	0.1U	0.1U	0.11U	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U
Molybdenum	6010B	mg/kg	22	22	1.0U	1.1U	1.1U	1.0U	1.0U	1.1U	1.0U	1.0U	1.0U	1.4	1.0U	1.0U
Zinc	6010B	mg/kg	1050	1050	58.0	64.0	58.0	54.0	36.0	27.0	37.0	40.0	75.0J	70.0J	200J	52.0
TEQ Human/Mammal	8290	ng/kg	100	190	17.0	67.0	78.0	86.0	130	0.79	96.0	24.0	NA	82.0	NA	60.0
TEQ Human/Mammal	4025m	ng/kg	100	190	33.0J	62.0	50.0	53.0	81.0J	16.0	50.0J	35.0	157	62.0	>259^	60.0J

Notes:

Shading with ^ indicates the analyte exceeded screening criteria

AOC = area of concern

bgs = below ground surface

FD = field duplicate sample

ID = identification

J = the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample

mg/kg = milligram(s) per kilogram

N = normal sample

NA = not analyzed

ng/kg = nanogram(s) per kilogram

NTCRA = non-time-critical removal action

QA = quality assurance

QC = quality control

TAA = target action area

TEQ = toxicity equivalent

U = the analyte was analyzed for but was not detected exceeding the reported sample quantitation limit

Table 3-12. AOC11 TAA1 Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

				Sample ID	AOC11TAA1-CW6-3	AOC11TAA1-CW6a-4	AOC11TAA1-CW6a-4FD	AOC11TAA1-CW7-3	AOC11TAA1-CW7a-4	AOC11TAA1-CW8-3	AOC11TAA1-CW9-3	AOC11TAA1-CW9a-4	AOC11TAA1-CW10-4	AOC11TAA1-CW11-5	AOC11TAA1-CW11a-4
				Sample Depth (feet bgs)	3-3.5	4-4.5	4-4.5	3-3.5	4-4.5	3-3.5	3-3.5	4-4.5	4-4.5	5-5.5	4-4.5
				Sample Date	8/3/2022	9/14/2022	9/14/2022	8/3/2022	9/15/2022	8/3/2022	8/3/2022	9/15/2022	8/3/2022	8/9/2022	9/14/2022
				Sample QA/QC Type	N	N	FD	N	N	N	N	N	N	N	N
				Sample Location Type	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall
				Soil Status	Removed	In Place	In Place	Removed	In Place	In Place	Removed	In Place	Removed	Removed	In Place
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	AOC11TAA1-CW6-3	AOC11TAA1-CW6a-4	AOC11TAA1-CW6a-4FD	AOC11TAA1-CW7-3	AOC11TAA1-CW7a-4	AOC11TAA1-CW8-3	AOC11TAA1-CW9-3	AOC11TAA1-CW9a-4	AOC11TAA1-CW10-4	AOC11TAA1-CW11-5	AOC11TAA1-CW11a-4
Chromium, hexavalent	7199	mg/kg	3.1	31	0.81	0.33	0.31	4.2	0.91	0.22	5.1	0.36	8.4	9.3	0.21U
Chromium, total	6010B	mg/kg	145	145	54.0	31.0	27.0	160^	35.0	18.0	420^	25.0	1400^	1700^	25.0
Copper	6010B	mg/kg	145	145	27.0	14.0	16.0	78.0	8.3	8.9	280^	11.0	400^	850^	12.0
Lead	6010B	mg/kg	36	36	10.0	3.2	3.4	9.4	12.0	10.0	16.0	2.9	30.0	46.0^	2.5
Mercury	7471A	mg/kg	1	1	0.1U	0.11U	0.11U	0.1U	0.1U	0.099U	0.1U	0.1U	0.1U	0.12	0.11U
Molybdenum	6010B	mg/kg	22	22	1.0U	1.1U	1.1U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	8.0	1.6
Zinc	6010B	mg/kg	1050	1050	82.0	53.0	56.0	330	31.0	29.0	570	29.0	910	2000^	40.0
TEQ Human/Mammal	8290	ng/kg	100	190	NA	140	210^	NA	14.0	3.0	NA	17.0	NA	NA	4.0
TEQ Human/Mammal	4025m	ng/kg	100	190	199^	68.0	66.0J	>365^	59.0J	24.0	NA	41.0J	NA	163	19.0J

Notes:

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FD = field duplicate sample

ID = identification

J = the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample

mg/kg = milligram(s) per kilogram

N = normal sample

NA = not analyzed

ng/kg = nanogram(s) per kilogram

NTCRA = non-time-critical removal action

QA = quality assurance

QC = quality control

TAA = target action area

TEQ = toxicity equivalent

U = the analyte was analyzed for but was not detected exceeding the reported sample quantitation limit

Table 3-13. AOC14 TAA1 Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

				Sample ID	AOC14TAA1-CF1-6	AOC14TAA1-CF1-6FD	AOC14TAA1-CF1a-10	AOC14TAA1-CF2-10	AOC14TAA1-CF2a-13	AOC14TAA1-CF2a-13FD	AOC14TAA1-CF3-10	AOC14TAA1-CF3a-13	AOC14TAA1-CF4-6	AOC14TAA1-CW1-2	AOC14TAA1-CW2-4	AOC14TAA1-CW3-4
				Sample Depth (feet bgs)	6-6.5	6-6.5	10-10.5	10-10.5	13-13.5	13-13.5	10-10.5	13-13.5	6-6.5	2-2.5	4-4.5	4-4.5
				Sample Date	2/10/2023	2/10/2023	11/17/2023	11/17/2023	1/18/2024	1/18/2024	11/17/2023	1/18/2024	1/11/2024	2/6/2023	2/10/2023	2/10/2023
				Sample QA/QC Type	N	FD	N	N	N	FD	N	N	N	N	N	N
				Sample Location Type	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Floor	Wall	Wall	Wall
				Soil Status	Removed	Removed	In Place	Removed	In Place	In Place	Removed	In Place	In Place	Removed	In Place	Removed
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	AOC14TAA1-CF1-6	AOC14TAA1-CF1-6FD	AOC14TAA1-CF1a-10	AOC14TAA1-CF2-10	AOC14TAA1-CF2a-13	AOC14TAA1-CF2a-13FD	AOC14TAA1-CF3-10	AOC14TAA1-CF3a-13	AOC14TAA1-CF4-6	AOC14TAA1-CW1-2	AOC14TAA1-CW2-4	AOC14TAA1-CW3-4
Chromium, hexavalent	7199	mg/kg	3.1	31	0.21U	0.39	0.27	0.87	0.25U	0.22U	3.4	0.55	0.22U	3.9	0.21U	0.21U
Chromium, total	6010B	mg/kg	145	145	23.0	19.0	19.0	340^	15.0	14.0	290^	35.0	20.0	26.0J	18.0	19.0
Copper	6010B	mg/kg	145	145	75.0J	15.0J	34.0J	410^	16.0	11.0	2800^	310^	12.0	3.5	12.0	14.0
Lead	6010B	mg/kg	36	36	11.0J	19.0J	8.2	49.0^	6.0	5.5	2500^	31.0	2.7	1.1UJ	4.0	9.6
Mercury	7471A	mg/kg	1	1	0.13	0.1U	0.36	0.15	0.13U	0.11U	1.5^	0.22	0.39	0.11U	0.1U	0.14
Molybdenum	6010B	mg/kg	22	22	1.5	1.0U	1.1U	6.0	1.3U	1.1U	29.0^	14.0	1.1U	1.1UJ	1.0U	1.1U
Zinc	6010B	mg/kg	1050	1050	30.0	28.0	33.0J	200	60.0J	44.0J	3400^	220	34.0	1.4J	33.0	32.0
TEQ Human/Mammal	8290	ng/kg	100	190	5.6	NA	1.9	NA	6.1	2.9	NA	26.0	1.8	1.9	1.2	3.6
TEQ Human/Mammal	4025m	ng/kg	100	190	15.0	NA	26.0J	66.0	22.0	NA	>400^	49.0J	28.0J	9.0	11.0	11.0

Notes:

Shading with ^ indicates the analyte exceeded screening criteria

> = greater than

AOC = area of concern

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FD = field duplicate sample

ID = identification

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mg/kg = milligram(s) per kilogram

N= normal sample

NA = not analyzed

ng/kg = nanogram(s) per kilogram

NTCRA = non-time-critical removal action

QA = quality assurance

QC = quality control

TAA = target action area

TEQ = toxicity equivalent

U = the analyte was analyzed for but was not detected exceeding the reported sample quantitation limit

UJ = the analyte concentration was less than the reported sample quantitation limit; however, the reported value is approximate

Table 3-13. AOC14 TAA1 Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

				Sample ID	AOC14TAA1- CW4-4	AOC14TAA1- CW5-5	AOC14TAA1- CW6-5	AOC14TAA1- CW7-1	AOC14TAA1- CW7a-3	AOC14TAA1- CW8-4	AOC14TAA1- CW9-4	AOC14TAA1- CW10-5	AOC14TAA1- CW11-3	AOC14TAA1- CW11-FD3	AOC14TAA1- CW12-5	AOC14TAA1- CW1a-1
				Sample Depth (feet bgs)	4-4.5	5-5.5	5-5.5	1-1.5	3-3.5	4-4.5	4-4.5	5-5.5	3-3.5	3-3.5	5-5.5	1-1.5
				Sample Date	2/10/2023	11/17/2023	11/17/2023	11/17/2023	1/11/2024	1/10/2024	1/10/2024	1/19/2024	1/11/2024	1/11/2024	1/19/2024	11/17/2023
				Sample QA/QC Type	N	N	N	N	N	N	N	N	N	FD	N	N
				Sample Location Type	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall	Wall
				Soil Status	Removed	Removed	Removed	Removed	In Place	In Place	In Place	In Place	In Place	In Place	In Place	In Place
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	AOC14TAA1- CW4-4	AOC14TAA1- CW5-5	AOC14TAA1- CW6-5	AOC14TAA1- CW7-1	AOC14TAA1- CW7a-3	AOC14TAA1- CW8-4	AOC14TAA1- CW9-4	AOC14TAA1- CW10-5	AOC14TAA1- CW11-3	AOC14TAA1- CW11-FD3	AOC14TAA1- CW12-5	AOC14TAA1- CW1a-1
Chromium, hexavalent	7199	mg/kg	3.1	31	0.21U	0.5	0.28	5.7^	0.71	0.27	0.29	0.21U	0.21U	0.24	0.21U	0.22
Chromium, total	6010B	mg/kg	145	145	16.0	24.0	15.0	90.0	57.0	13.0	22.0	17.0	20.0	18.0	15.0	16.0
Copper	6010B	mg/kg	145	145	15.0	13.0	9.9	1800^	1600^	11.0	12.0	9.7	22.0J	14.0J	9.7	14.0
Lead	6010B	mg/kg	36	36	5.3	9.0	3.9	610^	150^	5.1J	4.3J	2.7	4.9	5.0	2.8	8.1
Mercury	7471A	mg/kg	1	1	0.1U	0.11U	0.11U	2.2^	0.49	0.11U	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U
Molybdenum	6010B	mg/kg	22	22	1.0U	1.1U	1.1U	6.5	3.0	1.1U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U
Zinc	6010B	mg/kg	1050	1050	34.0	38.0	32.0	1300^	670	39.0	44.0	31.0J	42.0J	56.0J	32.0J	42.0
TEQ Human/Mammal	8290	ng/kg	100	190	6.0	24.0	13.0	NA	37.0	13.0	12.0	2.7	6.8	6.1	0.16	4.8
TEQ Human/Mammal	4025m	ng/kg	100	190	14.0	28.0J	27.0J	145J^	124J	87.0	60.0J	2.0J	23.0	NA	2.0J	19.0J

Notes:

Shading with ^ indicates the analyte exceeded screening criteria

> = greater than

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bgs = below ground surface

FD = field duplicate sample

ID = identification

J = the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample

mg/kg = milligram(s) per kilogram

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ng/kg = nanogram(s) per kilogram

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QA = quality assurance

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TAA = target action area

TEQ = toxicity equivalent

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UJ = the analyte concentration was less than the reported sample quantitation limit; however, the reported value is approximate

Table 3-14. AOC16 TAA1 Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

				Sample ID	AOC16TAA1-CF1-1	AOC16TAA1-CW1-0.5	AOC16TAA1-CW1-0.5FD	AOC16TAA1-CW1a-0.5	AOC16TAA1-CW2-0.5	AOC16TAA1-CW3-0.5	AOC16TAA1-CW4-0.5
				Sample Depth (feet bgs)	1-1.5	0.5-1	0.5-1	0.5-1	0.5-1	0.5-1	0.5-1
				Sample Date	10/5/2023	10/5/2023	10/5/2023	11/10/2023	10/5/2023	10/5/2023	10/5/2023
				Sample QA/QC Type	N	N	FD	N	N	N	N
				Sample Location Type	Floor	Wall	Wall	Wall	Wall	Wall	Wall
				Soil Status	In Place	Removed	Removed	In Place	In Place	In Place	In Place
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	AOC16TAA1-CF1-1	AOC16TAA1-CW1-0.5	AOC16TAA1-CW1-0.5FD	AOC16TAA1-CW1a-0.5	AOC16TAA1-CW2-0.5	AOC16TAA1-CW3-0.5	AOC16TAA1-CW4-0.5
Chromium, hexavalent	7199	mg/kg	3.1	31	0.21U	0.2U	0.2U	0.2U	0.2U	0.41	0.24
Chromium, total	6010B	mg/kg	145	145	13.0	14.0	13.0	17.0	18.0	15.0	22.0
Copper	6010B	mg/kg	145	145	10.0	10.0	9.4	10.0	20.0	34.0	23.0
Lead	6010B	mg/kg	36	36	4.6	5.2	4.3	6.7	8.3	23.0	11.0
Mercury	7471A	mg/kg	1	1	0.1U	1.3J^	0.1UJ	0.1U	0.1U	0.1U	0.1U
Molybdenum	6010B	mg/kg	22	22	1.0U	1.0U	1.0U	1.0U	1.0U	1.4	1.0U
Zinc	6010B	mg/kg	1050	1050	29.0	30.0	30.0	33.0J	38.0	53.0	57.0
TEQ Human/Mammal	8290	ng/kg	100	190	3.6	NA	NA	5.7	4.0	3.0	2.7
TEQ Human/Mammal	4025m	ng/kg	100	190	42.0	30.0J	NA	57.0J	43.0	32.0	56.0

Notes:

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AOC = area of concern

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ID = identification

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mg/kg = milligram(s) per kilogram

N = normal sample

NA = not analyzed

ng/kg = nanogram(s) per kilogram

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QA = quality assurance

QC = quality control

TAA = target action area

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Table 3-15. AOC27 TAA1 Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

				Sample ID	AOC27TAA1-CF1-5	AOC27TAA1-CF2-7	AOC27TAA1-CW1-3	AOC27TAA1-CW1-3FD	AOC27TAA1-CW2-3	AOC27TAA1-CW3-4	AOC27TAA1-CW4-1.5	AOC27TAA1-CW5-3
				Sample Depth (feet bgs)	5-5.5	7-7.5	3-3.5	3-3.5	3-3.5	4-4.5	1.5-2	3-3.5
				Sample Date	10/13/2023	10/25/2023	10/13/2023	10/13/2023	10/13/2023	10/13/2023	10/13/2023	10/25/2023
				Sample QA/QC Type	N	N	N	FD	N	N	N	N
				Sample Location Type	Floor	Floor	Wall	Wall	Wall	Wall	Wall	Wall
				Soil Status	In Place	In Place	In Place	In Place	In Place	In Place	In Place	In Place
Analyte	Method	Unit	Screening Level (0 to 2 feet bgs)	Screening Level (2 to 10 feet bgs)	AOC27TAA1-CF1-5	AOC27TAA1-CF2-7	AOC27TAA1-CW1-3	AOC27TAA1-CW1-3FD	AOC27TAA1-CW2-3	AOC27TAA1-CW3-4	AOC27TAA1-CW4-1.5	AOC27TAA1-CW5-3
Chromium, hexavalent	7199	mg/kg	3.1	31	0.21U	0.21U	0.21U	0.22U	0.2U	0.2U	0.22	0.31
Chromium, total	6010B	mg/kg	145	145	18.0	18.0	16.0J	22.0J	13.0	13.0	16.0	14.0
Copper	6010B	mg/kg	145	145	18.0	14.0	13.0J	18.0J	8.8	10.0	10.0	11.0
Lead	6010B	mg/kg	36	36	12.0	7.7	7.8J	11.0J	3.7	5.1	6.3	6.5
Mercury	7471A	mg/kg	1	1	0.11U	0.1U	0.11U	0.11U	0.1U	0.1U	0.11U	0.1U
Molybdenum	6010B	mg/kg	22	22	1.1U	1.0U	1.1UJ	1.1U	1.0U	1.0U	1.1U	1.0U
Zinc	6010B	mg/kg	1050	1050	56.0	47.0	46.0J	54.0	34.0	42.0	33.0	43.0
TEQ Human/Mammal	8290	ng/kg	100	190	5.6	2.8	3.2	2.8	1.1	2.6	2.1	3.1
TEQ Human/Mammal	4025m	ng/kg	100	190	13.0J	37.0	36.0J	NA	22.0	92.0J	16.0	36.0

Notes:

Shading with ^ indicates the analyte exceeded screening criteria

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FD = field duplicate sample

ID = identification

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mg/kg = milligram(s) per kilogram

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Table 3-16. Remaining Soil Exceeding Removal Action Goals

Soil NTCRA Completion Report
Topock Compressor Station, Needles, California

Target Action Area	Sample ID	Sample Depth (feet bgs)	Total Chromium (mg/kg)	Hexavalent Chromium (mg/kg)	D/F TEQ human/mammal (ng/kg)	Copper (mg/kg)	Lead (mg/kg)	Rationale for Remaining Soil Exceeding RAGs
SWMU1 TAA1	SWMU1TAA1-CF3-10	10-10.5	1800 [^]	DNE	DNE	DNE	DNE	Beyond the maximum removal depth of the NTCRA
SWMU1 TAA1	SWMU1TAA1-CF4-10	10-10.5	560 [^]	DNE	200 [^]	DNE	DNE	Beyond the maximum removal depth of the NTCRA
SWMU1 TAA1	SWMU1TAA1-CF13-10	10-10.5	2100 ^{^ J}	DNE	370 [^]	DNE	DNE	Beyond the maximum removal depth of the NTCRA
SWMU1 TAA1	SWMU1TAA1-CF14-10	10-10.5	1400 [^]	DNE	580 [^]	DNE	DNE	Beyond the maximum removal depth of the NTCRA
SWMU1 TAA1	SWMU1TAA1-CW23-2	2-2.5	920 [^]	DNE	DNE	DNE	DNE	Beneath unsafe steep hillside
AOC1 TAA1	AOC1TAA1-CW3b-5	5-5.5	DNE	DNE	280 [^]	DNE	DNE	Beneath I-40 stormwater culvert
AOC1 TAA2	AOC1TAA2-CF1-10	10-10.5	330 [^]	DNE	DNE	DNE	DNE	Beyond the maximum removal depth of the NTCRA
AOC1 TAA2	AOC1TAA2-CF2-10	10-10.5	340 [^]	DNE	DNE	DNE	DNE	Beyond the maximum removal depth of the NTCRA
AOC1 TAA2	AOC1TAA2-CW6-6	6-6.5	3300 [^]	DNE	DNE	DNE	DNE	Beneath active Transwestern gas pipeline
AOC1 TAA2	AOC1TAA2-CW6a-6	6-6.5	190 [^]	DNE	DNE	DNE	DNE	Beneath active Transwestern gas pipeline
AOC1 TAA2	AOC1TAA2-CW10-4	4-4.5	240 [^]	DNE	320 [^]	DNE	DNE	Beneath unsafe steep hillside
AOC10 TAA1	AOC10TAA1-CW6a-1	1-1.5	DNE	DNE	1700 [^]	DNE	DNE	Beneath TCS parking lot
AOC10 TAA1	AOC10TAA1-CW16-3	3-3.5	160 [^]	DNE	DNE	DNE	DNE	Beneath active high-voltage electrical line
AOC10 TAA4	AOC10TAA4-CW6-3	3-3.5	400 [^]	DNE	880 [^]	DNE	DNE	Beneath mesquite tree
AOC10 TAA4	AOC10TAA4-CW13-2	2-2.5	DNE	DNE	210 [^]	DNE	DNE	Beneath mesquite tree
AOC14 TAA1	AOC14TAA1-CW7a-3	3-3.5	DNE	DNE	DNE	1600 [^]	150 [^]	Beneath I-40 and beyond work area of the NTCRA
AOC14 TAA1	AOC14TAA1-CF3a-13	13-13.5	DNE	DNE	DNE	310 [^]	DNE	Beyond the maximum removal depth of the NTCRA

Notes:

Shaded values denoted with [^] exceed the applicable NTCRA RAG.

AOC = area of concern

bgs = below ground surface

D/F = dioxins/furans

DNE = does not exceed applicable RAG

I-40 = Interstate 40

J = the analyte was positively identified, and the associated numerical value is the approximate concentration of the analyte in the sample

mg/kg = milligram(s) per kilogram

ng/kg = nanogram(s) per kilogram

NTCRA = non-time critical removal action

RAG = Removal Action Goal

TAA = target action area

TCS = Topock Compressor Station

TEQ = toxic equivalent

SWMU = solid waste management unit

Numerical RAG	Total Chromium (mg/kg)	Hexavalent Chromium (mg/kg)	D/F TEQ human/mammal (ng/kg)	Copper (mg/kg)	Lead (mg/kg)
Screening Level (0 to 2 feet bgs)	145	3.1	100	145	36
Screening Level (2 to 10 feet bgs)	145	31	190	145	36

Table 3-17. Soil Samples Removed During Soil NTCRA*Soil NTCRA Completion Report**Topock Compressor Station, Needles, California*

Area	Sample Location	Sample Date	Sample Depth - Top (feet bgs)	Sample Depth - Bottom (feet bgs)
SWMU1	Bank - b	13-Nov-98	NA	NA
SWMU1	Bank-WP	13-Nov-98	NA	NA
SWMU1	SSB-2	30-Jun-97	1	1
SWMU1	SSB-2	30-Jun-97	3	3
SWMU1	SSB-4	30-Jun-97	1	1
SWMU1	SSB-4	30-Jun-97	10	10
SWMU1	SSB-4	30-Jun-97	3	3
SWMU1	SSB-4	30-Jun-97	6	6
SWMU1	SSB-5	30-Jun-97	1	1
SWMU1	SSB-5	30-Jun-97	10	10
SWMU1	SSB-5	30-Jun-97	3	3
SWMU1	SSB-5	30-Jun-97	6	6
SWMU1	SWMU1-1	16-Oct-08	0	0.5
SWMU1	SWMU1-1	16-Oct-08	2	3
SWMU1	SWMU1-1	16-Oct-08	5	6
SWMU1	SWMU1-1	16-Oct-08	9	10
SWMU1	SWMU1-11	15-Oct-08	0	0.5
SWMU1	SWMU1-11	15-Oct-08	2	3
SWMU1	SWMU1-11	15-Oct-08	5	6
SWMU1	SWMU1-11	15-Oct-08	9	10
SWMU1	SWMU1-19	09-Jan-16	0	1
SWMU1	SWMU1-19	09-Jan-16	2	3
SWMU1	SWMU1-19	09-Jan-16	5	6
SWMU1	SWMU1-19	09-Jan-16	9	10
SWMU1	SWMU1-2	15-Oct-08	0	0.5
SWMU1	SWMU1-2	15-Oct-08	2	3
SWMU1	SWMU1-2	15-Oct-08	5	6
SWMU1	SWMU1-2	15-Oct-08	9	10
SWMU1	SWMU1-20	13-Jan-16	1	1.5
SWMU1	SWMU1-20	13-Jan-16	9	10
SWMU1	SWMU1-20	13-Jan-16	2	3
SWMU1	SWMU1-20	13-Jan-16	5	6
SWMU1	SWMU1-21	26-Jan-16	0	1
SWMU1	SWMU1-21	26-Jan-16	2	3
SWMU1	SWMU1-21	26-Jan-16	5	6
SWMU1	SWMU1-21	26-Jan-16	9	10
SWMU1	SWMU1-22	17-Dec-15	0	1
SWMU1	SWMU1-23	17-Dec-15	0	1
SWMU1	SWMU1-24	17-Dec-15	0	1
SWMU1	SWMU1-25	26-Jan-16	0	1
SWMU1	SWMU1-25	26-Jan-16	2	3

Table 3-17. Soil Samples Removed During Soil NTCRA*Soil NTCRA Completion Report**Topock Compressor Station, Needles, California*

Area	Sample Location	Sample Date	Sample Depth - Top (feet bgs)	Sample Depth - Bottom (feet bgs)
SWMU1	SWMU1-25	26-Jan-16	5	6
SWMU1	SWMU1-25	26-Jan-16	9	10
SWMU1	SWMU1-26	08-Jan-17	0	0.5
SWMU1	SWMU1-26	08-Jan-17	0	0.5
SWMU1	SWMU1-26	08-Jan-17	2	3
SWMU1	SWMU1-26	08-Jan-17	5	6
SWMU1	SWMU1-26	08-Jan-17	9	10
SWMU1	SWMU1-27	07-Jan-17	0	0.5
SWMU1	SWMU1-27	07-Jan-17	2	3
SWMU1	SWMU1-27	07-Jan-17	5	6
SWMU1	SWMU1-27	07-Jan-17	9	10
SWMU1	SWMU1-29	16-Feb-17	0	0.5
SWMU1	SWMU1-29	16-Feb-17	2	3
SWMU1	SWMU1-29	16-Feb-17	5	6
SWMU1	SWMU1-29	16-Feb-17	9	10
SWMU1	SWMU1-3	06-Oct-08	0	0.5
SWMU1	SWMU1-3	06-Oct-08	2	3
SWMU1	SWMU1-3	06-Oct-08	2	3
SWMU1	SWMU1-3	06-Oct-08	5	6
SWMU1	SWMU1-3	06-Oct-08	9	10
SWMU1	SWMU1-4	15-Oct-08	0	0.5
SWMU1	SWMU1-4	15-Oct-08	2	3
SWMU1	SWMU1-4	15-Oct-08	5	6
SWMU1	SWMU1-4	15-Oct-08	7	8
SWMU1	SWMU1-4	15-Oct-08	9	10
SWMU1	SWMU1-5	15-Oct-08	9	10
SWMU1	SWMU1-6	15-Oct-08	0	0.5
SWMU1	SWMU1-6	15-Oct-08	2	3
SWMU1	SWMU1-6	15-Oct-08	5	6
SWMU1	SWMU1-6	15-Oct-08	9	10
SWMU1	SWMU1-7	15-Oct-08	0	0.5
SWMU1	SWMU1-7	15-Oct-08	2	3
SWMU1	SWMU1-7	15-Oct-08	5	6
SWMU1	SWMU1-7	15-Oct-08	9	10
SWMU1	SWMU1-7	15-Oct-08	9	10
SWMU1	SWMU1-8	15-Oct-08	0	0.5
SWMU1	SWMU1-8	15-Oct-08	2	3
SWMU1	SWMU1-8	15-Oct-08	5	6
SWMU1	SWMU1-8	15-Oct-08	9	10
SWMU1	SWMU1-9	14-Oct-08	0	0.5
SWMU1	SWMU1-9	14-Oct-08	2	3

Table 3-17. Soil Samples Removed During Soil NTCRA

Soil NTCRA Completion Report

Topock Compressor Station, Needles, California

Area	Sample Location	Sample Date	Sample Depth - Top (feet bgs)	Sample Depth - Bottom (feet bgs)
SWMU1	SWMU1-9	14-Oct-08	5	6
SWMU1	SWMU1-9	14-Oct-08	9	10
SWMU1	SWMU1-WP-10	05-Oct-08	0	0.5
SWMU1	SWMU1-WP-10	05-Oct-08	2	3
SWMU1	SWMU1-WP-1h	07-Oct-08	0	0.5
SWMU1	SWMU1-WP-1h	07-Oct-08	2	3
SWMU1	SWMU1-WP-1h	07-Oct-08	5	6
SWMU1	SWMU1-WP-1h	07-Oct-08	9	10
SWMU1	SWMU1-WP-3h	07-Oct-08	0	0.5
SWMU1	SWMU1-WP-3h	07-Oct-08	2	3
SWMU1	SWMU1-WP-5h	07-Oct-08	0	0.5
SWMU1	SWMU1-WP-5h	07-Oct-08	2	3
SWMU1	SWMU1-WP-6h	06-Oct-08	0	0.5
SWMU1	SWMU1-WP-6h	06-Oct-08	2	3
SWMU1	SWMU1-WP-7	06-Oct-08	0	0.5
SWMU1	SWMU1-WP-7	06-Oct-08	2	3
SWMU1	SWMU1-WP-8	06-Oct-08	0	0.5
SWMU1	SWMU1-WP-8	06-Oct-08	2	3
SWMU1	T-1	13-Nov-98	NA	NA
SWMU1	T-1	13-Nov-98	NA	NA
SWMU1	T-2	13-Nov-98	NA	NA
SWMU1	T-2	13-Nov-98	NA	NA
SWMU1	T-3-B	13-Nov-98	0	0
SWMU1	WP-1	30-Jun-97	0	0
SWMU1	WP-2	18-Sep-97	0	0
SWMU1	WP-3	18-Sep-97	0.5	0.5
SWMU1	WP-3	18-Sep-97	2	2
SWMU1	WP-4	18-Sep-97	0	0
SWMU1	WP-5	18-Sep-97	0	0
SWMU1	WP-5	18-Sep-97	1	1
SWMU1	WP-5	18-Sep-97	2	2
SWMU1	WP-5	18-Sep-97	3	3
SWMU1	WP-6	18-Sep-97	0	0
SWMU1	WP-6	18-Sep-97	1	1
SWMU1	WP-6	18-Sep-97	2	2
SWMU1	WP-Bank1	23-Nov-98	0	0
SWMU1	WP-Bank2	23-Nov-98	0	0
SWMU1	WP-Floor	23-Nov-98	NA	NA
AOC1	AOC1-1	23-Jan-16	0	0.5
AOC1	AOC1-1	23-Jan-16	2	3
AOC1	AOC1-1	23-Jan-16	5	6

Table 3-17. Soil Samples Removed During Soil NTCRA*Soil NTCRA Completion Report**Topock Compressor Station, Needles, California*

Area	Sample Location	Sample Date	Sample Depth - Top (feet bgs)	Sample Depth - Bottom (feet bgs)
AOC1	AOC1-3	25-Jan-16	0	0.5
AOC1	AOC1-3	25-Jan-16	2	3
AOC1	AOC1-3	25-Jan-16	5	6
AOC1	AOC1-T2b	16-Oct-08	0	0.5
AOC1	AOC1-T2b	16-Oct-08	2	3
AOC1	AOC1-T2b	16-Oct-08	5	6
AOC1	AOC1-T2b	16-Oct-08	9	10
AOC1	AOC1-T2b	16-Oct-08	9	10
AOC1	AOC1-T2d	07-Oct-08	0	0.5
AOC1	AOC1-T2d	07-Oct-08	2	3
AOC1	AOC1-T2d	07-Oct-08	5	6
AOC1	AOC1-T2d	07-Oct-08	9	10
AOC1	AOC1-T2g	03-Mar-16	9	10
AOC1	AOC1-T2h	04-Mar-16	0	1
AOC1	AOC1-T2h	04-Mar-16	2	3
AOC1	AOC1-T2h	04-Mar-16	5	6
AOC1	AOC1-T2h	04-Mar-16	9	10
AOC1	AOC1-T2i	05-Mar-16	0	1
AOC1	AOC1-T2i	05-Mar-16	2	3
AOC1	AOC1-T2i	05-Mar-16	5	6
AOC1	AOC1-T2i	05-Mar-16	9	10
AOC1	AOC1-T2j	05-Mar-16	0	1
AOC1	AOC1-T2j	05-Mar-16	2	3
AOC1	AOC1-T2j	05-Mar-16	2	3
AOC1	AOC1-T2j	05-Mar-16	5	6
AOC1	AOC1-T2j	05-Mar-16	9	10
AOC1	AOC1-T5D	12-Jan-16	0	1
AOC1	AOC1-T5D	12-Jan-16	2	3
AOC1	AOC1-T5D	12-Jan-16	2	3
AOC1	AOC1-T5D	12-Jan-16	5	6
AOC1	Old Well-BCW-1	11-Sep-13	7	8
AOC1	Old Well-BCW-2	11-Sep-13	4	5
AOC1	SS-3	29-Jun-97	0.5	0.5
AOC1	TCS4-E	01-Mar-16	4	5
AOC1	TCS4-E	01-Mar-16	4	5
AOC1	TCS4-E	01-Mar-16	5	6
AOC1	TCS4-N	01-Mar-16	4	5
AOC1	TCS4-N	01-Mar-16	5	6
AOC1	TCS4-S	01-Mar-16	4	5
AOC1	TCS4-S	01-Mar-16	5	6
AOC 9	#10	06-Apr-00	0	3

Table 3-17. Soil Samples Removed During Soil NTCRA*Soil NTCRA Completion Report**Topock Compressor Station, Needles, California*

Area	Sample Location	Sample Date	Sample Depth - Top (feet bgs)	Sample Depth - Bottom (feet bgs)
AOC 9	#4	06-Apr-00	0	3
AOC 9	#5	06-Apr-00	0	3
AOC 9	#6	06-Apr-00	0	3
AOC 9	#7	06-Apr-00	0	3
AOC 9	#8	06-Apr-00	0	3
AOC 9	#9	06-Apr-00	0	3
AOC 9	AOC9-3	18-Sep-08	0	0.5
AOC 9	AOC9-3	18-Sep-08	2	3
AOC 9	AOC9-8	01-Oct-08	0	0.5
AOC 9	AOC9-8	01-Oct-08	2.5	3
AOC 9	AOC9-9	01-Oct-08	0	0.5
AOC 9	AOC9-9	01-Oct-08	2.5	3
AOC10	AOC10-10	22-Jan-16	0	1
AOC10	AOC10-10	22-Jan-16	2	3
AOC10	AOC10-11	22-Jan-16	0	1
AOC10	AOC10-11	22-Jan-16	0	1
AOC10	AOC10-11	22-Jan-16	2	3
AOC10	AOC10-12	22-Jan-16	0	0.5
AOC10	AOC10-12	22-Jan-16	2	3
AOC10	AOC10-15	15-Dec-15	0	1
AOC10	AOC10-15	15-Dec-15	0	1
AOC10	AOC10-16	15-Dec-15	0	1
AOC10	AOC10-16	15-Dec-15	2	3
AOC10	AOC10-20	17-Feb-16	0	0.5
AOC10	AOC10-20	25-Feb-16	2	3
AOC10	AOC10-21	25-Feb-16	0	0.5
AOC10	AOC10-21	25-Feb-16	2	3
AOC10	AOC10-22	17-Feb-16	0	0.5
AOC10	AOC10-22	17-Feb-16	1	2
AOC10	AOC10-22	17-Feb-16	2	3
AOC10	AOC10-23	25-Feb-16	0	1
AOC10	AOC10-23	25-Feb-16	2	3
AOC10	AOC10-23	25-Feb-16	1	2
AOC10	AOC10-24	07-Mar-16	0	1
AOC10	AOC10-24	07-Mar-16	2	3
AOC10	AOC10-26	21-Feb-17	0	0.5
AOC10	AOC10-26	21-Feb-17	2	3
AOC10	AOC10-26	21-Feb-17	2	3
AOC10	AOC10-26	21-Feb-17	2.5	2.7
AOC10	AOC10b-1	30-Sep-08	0	0.5
AOC10	AOC10b-1	30-Sep-08	2	3

Table 3-17. Soil Samples Removed During Soil NTCRA*Soil NTCRA Completion Report**Topock Compressor Station, Needles, California*

Area	Sample Location	Sample Date	Sample Depth - Top (feet bgs)	Sample Depth - Bottom (feet bgs)
AOC10	AOC10b-1	30-Sep-08	2	3
AOC10	AOC10b-2	30-Sep-08	0	0.5
AOC10	AOC10b-2	30-Sep-08	2	3
AOC10	AOC10b-3	30-Sep-08	0	0.5
AOC10	AOC10b-3	01-Oct-08	2	3
AOC10	AOC10c-1	01-Oct-08	0	0.5
AOC10	AOC10c-1	01-Oct-08	2	3
AOC10	AOC10c-2	01-Oct-08	0	0.5
AOC10	AOC10c-2	01-Oct-08	2	3
AOC10	AOC10c-2	01-Oct-08	2	3
AOC10	AOC10c-3	02-Oct-08	0	0.5
AOC10	AOC10c-3	02-Oct-08	2	3
AOC10	AOC10c-3	02-Oct-08	2	3
AOC10	AOC10c-4	01-Oct-08	0	0.5
AOC10	AOC10c-4	01-Oct-08	2	3
AOC10	AOC10c-5	01-Oct-08	0	0.5
AOC10	AOC10c-5	01-Oct-08	2	3
AOC10	AOC10d-1	18-Sep-08	0	0.5
AOC10	AOC10d-1	18-Sep-08	2	3
AOC10	AOC10d-2	17-Sep-08	0	0.5
AOC10	AOC10d-2	17-Sep-08	2	3
AOC10	AOC10d-3	17-Sep-08	0	0.5
AOC10	AOC10d-3	18-Sep-08	2	3
AOC10	AOC10d-4	18-Sep-08	0	0.5
AOC10	AOC10d-4	18-Sep-08	2	3
AOC10	DTSC-AOC10d-1	18-Jan-08	0	0
AOC10	L-1	20-Feb-03	2	2
AOC10	L-1	20-Feb-03	0	0
AOC10	L-2	20-Feb-03	2	2
AOC10	L-2	20-Feb-03	0	0
AOC10	L-2-2	05-Mar-03	0	2
AOC10	L-2-3	05-Mar-03	0	2
AOC10	L-3	20-Feb-03	1	1
AOC10	L-3	20-Feb-03	1.5	1.5
AOC10	L-3	20-Feb-03	0	0
AOC10	L-3-2	05-Mar-03	0	0.5
AOC10	MW-58BR_S	29-Jan-09	1.5	2
AOC10	PA-18	27-Jan-16	0	1
AOC10	PA-18	26-Jan-17	2	3
AOC10	PA-18	26-Jan-17	2	3
AOC10	PA-19	27-Jan-16	0	1

Table 3-17. Soil Samples Removed During Soil NTCRA

Soil NTCRA Completion Report

Topock Compressor Station, Needles, California

Area	Sample Location	Sample Date	Sample Depth - Top (feet bgs)	Sample Depth - Bottom (feet bgs)
AOC10	PA-19	31-Jan-17	2	3
AOC10	PA-20	27-Jan-16	0	1
AOC10	PA-20	31-Jan-17	2	3
AOC10	PA-21	27-Jan-16	0	1
AOC10	PA-21	31-Jan-17	2	3
AOC10	PS-21	13-Apr-99	0	0
AOC10	PS-21	13-Apr-99	2	2
AOC10	SD-02	10-Nov-15	0	1
AOC10	SD-02	10-Nov-15	2	3
AOC10	SD-03	10-Nov-15	0	1
AOC10	SD-03	10-Nov-15	2	3
AOC10	SD-04	10-Nov-15	0	1
AOC10	SD-04	10-Nov-15	2	3
AOC11	AOC11e-1	23-Sep-08	0	0.5
AOC11	AOC11e-1	23-Sep-08	2.5	3
AOC11	AOC11e-1	23-Sep-08	5.5	6
AOC11	AOC11e-2	24-Sep-08	0	0.5
AOC11	AOC11e-2	24-Sep-08	2	3
AOC11	AOC11e-2	24-Sep-08	2	3
AOC11	AOC11e-2	24-Sep-08	5	6
AOC11	AOC11e-4	28-Jan-16	0	1
AOC11	AOC11e-4	28-Jan-16	2	3
AOC11	AOC11e-4	28-Jan-16	5	6
AOC14	AOC14-1	30-Sep-08	0	0.5
AOC14	AOC14-1	30-Sep-08	2	3
AOC14	AOC14-14E	18-Feb-16	0	1
AOC14	AOC14-14E	18-Feb-16	2	3
AOC14	AOC14-14E	18-Feb-16	2	3
AOC14	AOC14-14W	16-Feb-16	0	1
AOC14	AOC14-14W	16-Feb-16	2	3
AOC14	AOC14-14W	16-Feb-16	5	5.5
AOC14	AOC14-14W	16-Feb-16	6	7
AOC14	AOC14-14W	16-Feb-16	9	10
AOC14	AOC14-15	18-Feb-16	0	1
AOC14	AOC14-15	18-Feb-16	2	3
AOC14	AOC14-15	18-Feb-16	5	6
AOC14	AOC14-15	18-Feb-16	7	8
AOC14	AOC14-16E	23-Feb-16	0	1
AOC14	AOC14-16E	23-Feb-16	2	3
AOC14	AOC14-16W	22-Feb-16	0	1
AOC14	AOC14-16W	22-Feb-16	2	3

Table 3-17. Soil Samples Removed During Soil NTCRA*Soil NTCRA Completion Report**Topock Compressor Station, Needles, California*

Area	Sample Location	Sample Date	Sample Depth - Top (feet bgs)	Sample Depth - Bottom (feet bgs)
AOC14	AOC14-16W	22-Feb-16	5	6
AOC14	AOC14-16W	22-Feb-16	7	8
AOC14	AOC14-16W	22-Feb-16	9	10
AOC14	AOC14-16W	22-Feb-16	9	10
AOC14	AOC14-19	17-Feb-16	2	3
AOC14	AOC14-19	17-Feb-16	3	4
AOC14	AOC14-3	01-Oct-08	0	0.5
AOC14	AOC14-3	01-Oct-08	2	3
AOC14	AOC14-3	01-Oct-08	5	6
AOC14	AOC14-SS-1	01-Oct-08	0	0.5
AOC14	AOC14-SS-1	01-Oct-08	2	3
AOC14	AOC14-SS-1	01-Oct-08	5	6
AOC14	AOC14-SS-1	01-Oct-08	9	10
AOC14	GS-1	01-Nov-98	0	0
AOC14	RR-4	02-Feb-00	0	0
AOC14	RR-5	02-Feb-00	0	0
AOC14	RR-6	02-Feb-00	0	0
AOC14	RR-7	02-Feb-00	0	0
AOC14	S1-20	01-Nov-98	3	3
AOC16	AOC16-grit	05-Jan-17	0	0.5
AOC27	AOC27-50	02-Mar-16	0	1
AOC27	AOC27-50	02-Mar-16	2	3
AOC27	AOC27-50	02-Mar-16	5	6
AOC27	AOC27-6	29-Feb-16	0	1
AOC27	AOC27-6	29-Feb-16	2	3
AOC27	AOC27-6	29-Feb-16	5	6
AOC27	AOC27-7	29-Feb-16	0	1
AOC27	AOC27-7	29-Feb-16	2	3
AOC27	AOC27-7	01-Mar-16	5	6
AOC27	AOC27-8	01-Mar-16	1	2
AOC27	AOC27-8	01-Mar-16	5	6

Table 4-1. Post-Stockpile Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

					Sample ID	LowerSPY-PS1-2024	LowerSPY-PS2-2024	LowerSPY-PS3-2024	LowerSPY-PS3a-2024	LowerSPY-PS3a-2024FD	LowerSPY-PS4-2024	LowerSPY-PS5-2024	LowerSPY-PS6N-2024
					Sample Depth ^[a]	6 inches	6 inches	6 inches	9 inches	9 inches	6 inches	3 inches	3 inches
					Sample Date	3/14/2024	3/14/2024	3/14/2024	4/3/2024	4/3/2024	3/19/2024	2/29/2024	2/27/2024
					Sample QA/QC Type	N	N	N	N	FD	N	N	N
					Sample Location Type	Lower SPY	Lower SPY	Lower SPY	Lower SPY	Lower SPY	Lower SPY	Lower SPY	Lower SPY
					Soil Status	In Place	In Place	Removed	In Place	In Place	In Place	In Place	Removed
Analyte	Method	Unit	SPY Baseline ^[d]	Topock Background ^[e]	Approved Screening Criteria	LowerSpy-PS1-2024	LowerSpy-PS2-2024	LowerSpy-PS3-2024	LowerSpy-PS3a-2024	LowerSpy-PS3a-2024FD	LowerSpy-PS4-2024	LowerSpy-PS5-2024	LowerSpy-PS6N-2024
Chromium, Hexavalent	7199	mg/kg	ND	0.83	0.83	0.44	0.2U	0.71	0.21U	0.21U	0.2U	0.45	3.8 [^]
Chromium, total	6010B	mg/kg	27	39.8	39.8	20.0	10.0	140 [^]	20.0J	14.0J	20.0	24.0	180 [^]
Copper	6010B	mg/kg	15	16.8	16.8	9.2	9.3	10.0	16.0J	12.0J	12.0	10.0	14.0
Lead	6010B	mg/kg	7.8	8.39	8.39	4.1	2.3	4.0	4.1	3.4	3.1	4.0	4.0
Mercury	7471A	mg/kg	ND	NA	ND	0.099U	0.099U	0.1U	0.1U	0.1U	0.1U	0.098U	0.099U
Molybdenum	6010B	mg/kg	ND	1.37	1.37	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U
Zinc	6010B	mg/kg	39	58	58	23.0	23.0	45.0	52.0J	34.0J	31.0J	30.0	62.0 [^]
TEQ Human	8290	ng/kg	NA	5.58	83 ^[f]	3.4	0.44	34.0	1.3	0.67	0.49	12.0	110 [^]
Asbestos	CARB 435	%	NA	NA	ND	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U

^[a] Post-stockpile confirmation samples are surface soil samples. The listed sample depths are an estimate of the total thickness of material removed from SPY stalls or SPY sampling units before sampling.

^[b] LowerSPY-PS13a-2024 chromium concentration is less than the SMP soil management level of 57 mg/kg and will remain in place until final SPY decommissioning.

^[c] UpperSPY-PS6-2024 and UpperSPY-PS7-2024 copper concentrations are less than or equal to the SMP soil management level of 70 mg/kg and will remain in place until final SPY decommissioning. UpperSPY-PS7-2024 was resampled and the copper concentration was less than the approved screening criteria.

^[d] Maximum of SPY baseline soil samples collected in September 2018 and 2022.

^[e] Topock soil background concentrations (CH2M 2009a).

^[f] DOI approved the use of the SMP soil management level for dioxin and furans on April 2, 2024.

Notes:

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CARB = California Air Resources Board

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NTCRA = Non-Time-Critical Removal Action

QA = quality assurance

QC = quality control

RAG = removal action goal

SMP = Topock Groundwater Remedy Soil Management Plan

SPY = Soil Processing Yard

TEQ = toxicity equivalent

U = analyte was analyzed for but not detected at the specified detection limit

Table 4-1. Post-Stockpile Confirmation Soil Sample Results
Soil NTCRA Completion Report
Topock Compressor Station, Needles, California

					Sample ID	LowerSPY-PS6Na-2024	LowerSPY-PS6Nb-2024	LowerSPY-PS6S-2024	LowerSPY-PS6Sa-2024	LowerSPY-PS6Sa-2024FD	LowerSPY-PS6Sb-2024	LowerSPY-PS7-2024	LowerSPY-PS8-2024
					Sample Depth ^[a]	9 inches	12 inches	3 inches	9 inches	9 inches	12 inches	3 inches	3 inches
					Sample Date	3/21/2024	4/3/2024	2/27/2024	3/21/2024	3/21/2024	4/3/2024	3/5/2024	2/23/2024
					Sample QA/QC Type	N	N	N	N	FD	N	N	N
					Sample Location Type	Lower SPY	Lower SPY	Lower SPY	Lower SPY	Lower SPY	Lower SPY	Lower SPY	Lower SPY
					Soil Status	Removed	In Place	Removed	Removed	Removed	In Place	In Place	Removed
Analyte	Method	Unit	SPY Baseline ^[d]	Topock Background ^[e]	Approved Screening Criteria	LowerSpy-PS6Na-2024	LowerSpy-PS6Nb-2024	LowerSpy-PS6S-2024	LowerSpy-PS6Sa-2024	LowerSpy-PS6Sa-2024FD	LowerSpy-PS6Sb-2024	LowerSpy-PS7-2024	LowerSpy-PS8-2024
Chromium, Hexavalent	7199	mg/kg	ND	0.83	0.83	0.68	0.22U	6.5 [^]	2.9J [^]	0.2UJ	0.22U	0.22	0.78
Chromium, total	6010B	mg/kg	27	39.8	39.8	52.0 [^]	12.0J	350 [^]	130J [^]	15.0J	11.0	16.0	81.0 [^]
Copper	6010B	mg/kg	15	16.8	16.8	15.0	12.0	14.0	7.8	10.0U	10.0	16.0	13.0
Lead	6010B	mg/kg	7.8	8.39	8.39	5.0	5.3	3.2	4.0	5.0U	5.3	5.4	5.0
Mercury	7471A	mg/kg	ND	NA	ND	0.1U	0.11U	0.099U	0.099U	0.099U	0.11U	0.1U	0.1U
Molybdenum	6010B	mg/kg	ND	1.37	1.37	1.0U	1.1U	1.0U	1.0U	5.0U	1.1U	1.0U	1.0U
Zinc	6010B	mg/kg	39	58	58	32.0	32.0J	79.0 [^]	37.0J	30.0J	27.0J	30.0	41.0
TEQ Human	8290	ng/kg	NA	5.58	83 ^[f]	16.0	0.98	180 [^]	89.0 [^]	9.6	0.89	4.6	26.0
Asbestos	CARB 435	%	NA	NA	ND	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U

^[a] Post-stockpile confirmation samples are surface soil samples. The listed sample depths are an estimate of the total thickness of material removed from SPY stalls or SPY sampling units before sampling.

^[b] LowerSPY-PS13a-2024 chromium concentration is less than the SMP soil management level of 57 mg/kg and will remain in place until final SPY decommissioning.

^[c] UpperSPY-PS6-2024 and UpperSPY-PS7-2024 copper concentrations are less than or equal to the SMP soil management level of 70 mg/kg and will remain in place until final SPY decommissioning. UpperSPY-PS7-2024 was resampled and the copper concentration was less than the approved screening criteria.

^[d] Maximum of SPY baseline soil samples collected in September 2018 and 2022.

^[e] Topock soil background concentrations (CH2M 2009a).

^[f] DOI approved the use of the SMP soil management level for dioxin and furans on April 2, 2024.

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QC = quality control

RAG = removal action goal

SMP = Topock Groundwater Remedy Soil Management Plan

SPY = Soil Processing Yard

TEQ = toxicity equivalent

U = analyte was analyzed for but not detected at the specified detection limit

Table 4-1. Post-Stockpile Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

					Sample ID	LowerSPY-PS8a-2024	LowerSPY-PS8a-2024FD	LowerSPY-PS9-2024	LowerSPY-PS9a-2024	LowerSPY-PS10-2024	LowerSPY-PS10a-2024	LowerSPY-PS10b-2024	LowerSPY-PS11-2024
					Sample Depth ^[a]	9 inches	9 inches	3 inches	9 inches	3 inches	9 inches	12 inches	3 inches
					Sample Date	3/19/2024	3/19/2024	2/23/2024	3/19/2024	2/27/2024	3/19/2024	4/3/2024	2/27/2024
					Sample QA/QC Type	N	FD	N	N	N	N	N	N
					Sample Location Type	Lower SPY	Lower SPY	Lower SPY	Lower SPY	Lower SPY	Lower SPY	Lower SPY	Lower SPY
					Soil Status	In Place	In Place	Removed	In Place	Removed	Removed	In Place	Removed
Analyte	Method	Unit	SPY Baseline ^[d]	Topock Background ^[e]	Approved Screening Criteria	LowerSpy-PS8a-2024	LowerSpy-PS8a-2024FD	LowerSpy-PS9-2024	LowerSpy-PS9a-2024	LowerSpy-PS10-2024	LowerSpy-PS10a-2024	LowerSpy-PS10b-2024	LowerSpy-PS11-2024
Chromium, Hexavalent	7199	mg/kg	ND	0.83	0.83	0.2U	0.2U	0.93 [^]	0.2U	4.2 [^]	1.7 [^]	0.22U	1.1 [^]
Chromium, total	6010B	mg/kg	27	39.8	39.8	5.2	6.0	47.0 [^]	11.0	150 [^]	78.0 [^]	12.0J	52.0 [^]
Copper	6010B	mg/kg	15	16.8	16.8	5.9	6.4	10.0	8.4	14.0	13.0	12.0	14.0
Lead	6010B	mg/kg	7.8	8.39	8.39	4.9	4.7	3.6	3.6	5.2	4.8	2.9	4.2
Mercury	7471A	mg/kg	ND	NA	ND	0.099U	0.1U	0.1U	0.1U	0.1U	0.099U	0.11U	0.1U
Molybdenum	6010B	mg/kg	ND	1.37	1.37	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.1U	1.0U
Zinc	6010B	mg/kg	39	58	58	19.0J	21.0J	27.0	21.0J	54.0	46.0J	32.0J	42.0
TEQ Human	8290	ng/kg	NA	5.58	83 ^[f]	0.12	0.13	63.0	0.33	89.0 [^]	17.0	0.36	37.0
Asbestos	CARB 435	%	NA	NA	ND	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U

^[a] Post-stockpile confirmation samples are surface soil samples. The listed sample depths are an estimate of the total thickness of material removed from SPY stalls or SPY sampling units before sampling.

^[b] LowerSPY-PS13a-2024 chromium concentration is less than the SMP soil management level of 57 mg/kg and will remain in place until final SPY decommissioning.

^[c] UpperSPY-PS6-2024 and UpperSPY-PS7-2024 copper concentrations are less than or equal to the SMP soil management level of 70 mg/kg and will remain in place until final SPY decommissioning. UpperSPY-PS7-2024 was resampled and the copper concentration was less than the approved screening criteria.

^[d] Maximum of SPY baseline soil samples collected in September 2018 and 2022.

^[e] Topock soil background concentrations (CH2M 2009a).

^[f] DOI approved the use of the SMP soil management level for dioxin and furans on April 2, 2024.

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QC = quality control

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SPY = Soil Processing Yard

TEQ = toxicity equivalent

U = analyte was analyzed for but not detected at the specified detection limit

Table 4-1. Post-Stockpile Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

					Sample ID	LowerSPY-PS11a-2024	LowerSPY-PS12-2024	LowerSPY-PS13-2024	LowerSPY-PS13a-2024	LowerSPY-PS14-2024	LowerSPY-PS14a-2024	LowerSPY-PS15-2024
					Sample Depth ^[a]	9 inches	3 inches	3 inches	5 inches	3 inches	9 inches	3 inches
					Sample Date	3/14/2024	2/23/2024	3/5/2024	4/3/2024	3/5/2024	3/14/2024	3/5/2024
					Sample QA/QC Type	N	N	N	N	N	N	N
					Sample Location Type	Lower SPY	Lower SPY	Lower SPY	Lower SPY	Lower SPY	Lower SPY	Lower SPY
					Soil Status	In Place	In Place	Removed	In Place ^[b]	Removed	In Place	Removed
Analyte	Method	Unit	SPY Baseline ^[d]	Topock Background ^[e]	Approved Screening Criteria	LowerSpy-PS11a-2024	LowerSpy-PS12-2024	LowerSpy-PS13-2024	LowerSpy-PS13a-2024	LowerSpy-PS14-2024	LowerSpy-PS14a-2024	LowerSpy-PS15-2024
Chromium, Hexavalent	7199	mg/kg	ND	0.83	0.83	0.2U	0.2U	1.0J [^]	0.78	1.6 [^]	0.2U	2.4 [^]
Chromium, total	6010B	mg/kg	27	39.8	39.8	11.0	22.0	26.0	47.0 [^]	88.0J [^]	12.0	59.0 [^]
Copper	6010B	mg/kg	15	16.8	16.8	10.0	11.0	9.6	15.0	12.0	7.6	14.0
Lead	6010B	mg/kg	7.8	8.39	8.39	2.9	3.9	2.1	5.0	2.0	1.7	3.2
Mercury	7471A	mg/kg	ND	NA	ND	0.099U	0.1U	0.1U	0.11U	0.1U	0.099U	0.1U
Molybdenum	6010B	mg/kg	ND	1.37	1.37	1.0U	1.0U	1.0U	1.1U	1.0U	1.0U	1.0U
Zinc	6010B	mg/kg	39	58	58	22.0	34.0	25.0	41.0J	40.0J	21.0	36.0
TEQ Human	8290	ng/kg	NA	5.58	83 ^[f]	0.7	1.3	13.0	14.0	28.0	0.99	28.0
Asbestos	CARB 435	%	NA	NA	ND	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U

^[a] Post-stockpile confirmation samples are surface soil samples. The listed sample depths are an estimate of the total thickness of material removed from SPY stalls or SPY sampling units before sampling.

^[b] LowerSPY-PS13a-2024 chromium concentration is less than the SMP soil management level of 57 mg/kg and will remain in place until final SPY decommissioning.

^[c] UpperSPY-PS6-2024 and UpperSPY-PS7-2024 copper concentrations are less than or equal to the SMP soil management level of 70 mg/kg and will remain in place until final SPY decommissioning. UpperSPY-PS7-2024 was resampled and the copper concentration was less than the approved screening criteria.

^[d] Maximum of SPY baseline soil samples collected in September 2018 and 2022.

^[e] Topock soil background concentrations (CH2M 2009a).

^[f] DOI approved the use of the SMP soil management level for dioxin and furans on April 2, 2024.

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Table 4-1. Post-Stockpile Confirmation Soil Sample Results
Soil NTCRA Completion Report
Topock Compressor Station, Needles, California

					Sample ID	LowerSPY-PS15a-2024	LowerSPY-PS16-2024	LowerSPY-PS16a-2024	LowerSPY-PS16b-SW-2024	LowerSPY-PS16b-NW-2024	LowerSPY-PS16b-SE-2024	LowerSPY-PS16b-NE-2024
					Sample Depth ^[a]	9 inches	6 inches	12 inches	16 inches	16 inches	16 inches	16 inches
					Sample Date	3/14/2024	2/23/2024	3/21/2024	4/3/2024	4/15/2024	4/15/2024	4/15/2024
					Sample QA/QC Type	N	N	N	N	N	N	N
					Sample Location Type	Lower SPY	Lower SPY	Lower SPY	Lower SPY	Lower SPY	Lower SPY	Lower SPY
					Soil Status	In Place	Removed	Removed	Removed	In Place	In Place	In Place
Analyte	Method	Unit	SPY Baseline ^[d]	Topock Background ^[e]	Approved Screening Criteria	LowerSpy-PS15a-2024	LowerSpy-PS16-2024	LowerSpy-PS16a-2024	LowerSpy-PS16b-SW-2024	LowerSpy-PS16b-NW-2024	LowerSpy-PS16b-SE-2024	LowerSpy-PS16b-NE-2024
Chromium, Hexavalent	7199	mg/kg	ND	0.83	0.83	0.2U	1.6 [^]	0.71	0.2U	0.26	0.2U	0.43
Chromium, total	6010B	mg/kg	27	39.8	39.8	11.0	82.0 [^]	58.0J [^]	18.0J	29.0J	17.0J	30.0J
Copper	6010B	mg/kg	15	16.8	16.8	8.1	10.0	15.0	12.0	11.0	11.0	12.0
Lead	6010B	mg/kg	7.8	8.39	8.39	1.6	3.8	6.5	4.4	2.6	7.4	3.6
Mercury	7471A	mg/kg	ND	NA	ND	0.1U	0.1U	0.099U	0.1U	0.099U	0.1U	0.099U
Molybdenum	6010B	mg/kg	ND	1.37	1.37	1.0U	1.0U	5.0U	1.0U	1.0U	1.0U	1.0U
Zinc	6010B	mg/kg	39	58	58	22.0	37.0	39.0	32.0J	34.0J	33.0J	35.0J
TEQ Human	8290	ng/kg	NA	5.58	83 ^[f]	0.45	40.0	7.0	NA	NA	NA	NA
Asbestos	CARB 435	%	NA	NA	ND	0.1U	0.1U	0.1U	NA	NA	NA	NA

^[a] Post-stockpile confirmation samples are surface soil samples. The listed sample depths are an estimate of the total thickness of material removed from SPY stalls or SPY sampling units before sampling.

^[b] LowerSPY-PS13a-2024 chromium concentration is less than the SMP soil management level of 57 mg/kg and will remain in place until final SPY decommissioning.

^[c] UpperSPY-PS6-2024 and UpperSPY-PS7-2024 copper concentrations are less than or equal to the SMP soil management level of 70 mg/kg and will remain in place until final SPY decommissioning. UpperSPY-PS7-2024 was resampled and the copper concentration was less than the approved screening criteria.

^[d] Maximum of SPY baseline soil samples collected in September 2018 and 2022.

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^[f] DOI approved the use of the SMP soil management level for dioxin and furans on April 2, 2024.

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Table 4-1. Post-Stockpile Confirmation Soil Sample Results
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

					Sample ID	LowerSPY-PS16b-C-2024	LowerSPY-PS16c-2024	LowerSPY-PS17-2024	LowerSPY-PS18-2024	LowerSPY-PS19-2024	LowerSPY-PS19-2024FD	LowerSPY-PS20-2024
					Sample Depth ^[a]	16 inches	16 inches plus center	4 inches	9 inches	9 inches	9 inches	9 inches
					Sample Date	4/15/2024	4/23/2024	3/29/2024	5/1/2024	5/1/2024	5/1/2024	5/1/2024
					Sample QA/QC Type	N	N	N	N	N	FD	N
					Sample Location Type	Lower SPY	Lower SPY	Lower SPY	Lower SPY	Lower SPY	Lower SPY	Lower SPY
					Soil Status	Removed	In Place	In Place	In Place	In Place	In Place	In Place
Analyte	Method	Unit	SPY Baseline ^[d]	Topock Background ^[e]	Approved Screening Criteria	LowerSpy-PS16b-C-2024	LowerSpy-PS16c-2024	LowerSpy-PS17-2024	LowerSpy-PS18-2024	LowerSpy-PS19-2024	LowerSpy-PS19-2024FD	LowerSpy-PS20-2024
Chromium, Hexavalent	7199	mg/kg	ND	0.83	0.83	2.5 [^]	0.2U	0.31	0.22	0.22U	0.22U	0.21U
Chromium, total	6010B	mg/kg	27	39.8	39.8	110J [^]	18.0	27.0	21.0	14.0	16.0	13.0
Copper	6010B	mg/kg	15	16.8	16.8	14.0	12.0	12.0	14.0J	14.0	15.0	14.0
Lead	6010B	mg/kg	7.8	8.39	8.39	3.9	3.3J	4.7	3.9	5.4	6.4	4.4
Mercury	7471A	mg/kg	ND	NA	ND	0.1U	0.1U	0.1U	0.1U	0.11U	0.11U	0.11U
Molybdenum	6010B	mg/kg	ND	1.37	1.37	1.0U	1.0U	1.0U	1.0U	1.1U	1.1U	1.1U
Zinc	6010B	mg/kg	39	58	58	44.0J	26.0J	35.0J	34.0J	32.0J	38.0J	33.0J
TEQ Human	8290	ng/kg	NA	5.58	83 ^[f]	NA	3.9	1.2	1.4	1.0	1.0	0.78
Asbestos	CARB 435	%	NA	NA	ND	NA	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U

^[a] Post-stockpile confirmation samples are surface soil samples. The listed sample depths are an estimate of the total thickness of material removed from SPY stalls or SPY sampling units before sampling.

^[b] LowerSPY-PS13a-2024 chromium concentration is less than the SMP soil management level of 57 mg/kg and will remain in place until final SPY decommissioning.

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 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

					Sample ID	LowerSPY-PS21-2024	LowerSPY-PS22-2024	LowerSPY-PS22a-2024	UpperSPY-PS1-2024	UpperSPY-PS2-2024	UpperSPY-PS3-2024	UpperSPY-PS3-2024FD	UpperSPY-PS4-2024
					Sample Depth ^[a]	6 inches	3 inches	6 inches	6 inches	6 inches	6 inches	6 inches	6 inches
					Sample Date	3/28/2024	3/29/2024	4/16/2024	3/28/2024	3/28/2024	3/29/2024	3/29/2024	3/29/2024
					Sample QA/QC Type	N	N	N	N	N	N	FD	N
					Sample Location Type	Lower SPY	Lower SPY	Lower SPY	Upper SPY	Upper SPY	Upper SPY	Upper SPY	Upper SPY
					Soil Status	In Place	Removed	In Place	In Place	In Place	In Place	In Place	In Place
Analyte	Method	Unit	SPY Baseline ^[d]	Topock Background ^[e]	Approved Screening Criteria	LowerSpy-PS21-2024	LowerSpy-PS22-2024	LowerSpy-PS22a-2024	UpperSpy-PS1-2024	UpperSpy-PS2-2024	UpperSpy-PS3-2024	UpperSpy-PS3-2024FD	UpperSpy-PS4-2024
Chromium, Hexavalent	7199	mg/kg	ND	0.83	0.83	0.2U	1.1 [^]	0.2U	0.21U	0.21U	0.2U	0.2U	0.2U
Chromium, total	6010B	mg/kg	27	39.8	39.8	18.0	60.0 [^]	14.0	21.0	17.0	18.0	16.0	22.0
Copper	6010B	mg/kg	15	16.8	16.8	13.0	19.0 [^]	10.0	14.0	12.0	13.0	13.0	14.0
Lead	6010B	mg/kg	7.8	8.39	8.39	3.5	20.0 [^]	2.4	4.1	2.8	3.5	3.0	4.5
Mercury	7471A	mg/kg	ND	NA	ND	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U
Molybdenum	6010B	mg/kg	ND	1.37	1.37	1.0U	1.1	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U
Zinc	6010B	mg/kg	39	58	58	35.0J	52.0J	32.0	36.0J	32.0J	34.0J	31.0J	36.0J
TEQ Human	8290	ng/kg	NA	5.58	83 ^[f]	0.6	9.8	0.14U	4.3	0.91	0.76	0.66	5.2
Asbestos	CARB 435	%	NA	NA	ND	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U

^[a] Post-stockpile confirmation samples are surface soil samples. The listed sample depths are an estimate of the total thickness of material removed from SPY stalls or SPY sampling units before sampling.

^[b] LowerSPY-PS13a-2024 chromium concentration is less than the SMP soil management level of 57 mg/kg and will remain in place until final SPY decommissioning.

^[c] UpperSPY-PS6-2024 and UpperSPY-PS7-2024 copper concentrations are less than or equal to the SMP soil management level of 70 mg/kg and will remain in place until final SPY decommissioning. UpperSPY-PS7-2024 was resampled and the copper concentration was less than the approved screening criteria.

^[d] Maximum of SPY baseline soil samples collected in September 2018 and 2022.

^[e] Topock soil background concentrations (CH2M 2009a).

^[f] DOI approved the use of the SMP soil management level for dioxin and furans on April 2, 2024.

Notes:

Shaded values denoted with ^ exceed the applicable screening criteria

CARB = California Air Resources Board

DOI = U.S. Department of the Interior

FD = field duplicate

J = estimated

mg/kg = milligram(s) per kilogram

N = normal

NA = not available

ND = nondetect

ng/kg = nanogram(s) per kilogram

NTCRA = Non-Time-Critical Removal Action

QA = quality assurance

QC = quality control

RAG = removal action goal

SMP = Topock Groundwater Remedy Soil Management Plan

SPY = Soil Processing Yard

TEQ = toxicity equivalent

U = analyte was analyzed for but not detected at the specified detection limit

Table 4-1. Post-Stockpile Confirmation Soil Sample Results

Soil NTCRA Completion Report

Topock Compressor Station, Needles, California

					Sample ID	UpperSPY-PS5-2024	UpperSPY-PS6-2024	UpperSPY-PS7-2024	UpperSPY-PS7R-2024
					Sample Depth ^[a]	6 inches	6 inches	6 inches	PS7 - Resample
					Sample Date	3/29/2024	3/29/2024	3/29/2024	4/16/2024
					Sample QA/QC Type	N	N	N	N
					Sample Location Type	Upper SPY	Upper SPY	Upper SPY	Upper SPY
					Soil Status	In Place	In Place ^[c]	In Place ^[c]	In Place
Analyte	Method	Unit	SPY Baseline ^[d]	Topock Background ^[e]	Approved Screening Criteria	UpperSpy-PS5-2024	UpperSpy-PS6-2024	UpperSpy-PS7-2024	UpperSpy-PS7R-2024
Chromium, Hexavalent	7199	mg/kg	ND	0.83	0.83	0.2U	0.2U	0.37	0.2U
Chromium, total	6010B	mg/kg	27	39.8	39.8	22.0	23.0	32.0	19.0
Copper	6010B	mg/kg	15	16.8	16.8	16.0	17.0 [^]	57.0 [^]	14.0
Lead	6010B	mg/kg	7.8	8.39	8.39	4.6	6.6	4.5	4.6
Mercury	7471A	mg/kg	ND	NA	ND	0.1U	0.1U	0.1U	0.099U
Molybdenum	6010B	mg/kg	ND	1.37	1.37	1.0U	1.0U	1.0U	1.0U
Zinc	6010B	mg/kg	39	58	58	39.0J	38.0J	39.0J	38.0
TEQ Human	8290	ng/kg	NA	5.58	83 ^[f]	0.4	4.1	1.8	0.24
Asbestos	CARB 435	%	NA	NA	ND	0.1U	0.1U	0.1U	0.1U

^[a] Post-stockpile confirmation samples are surface soil samples. The listed sample depths are an estimate of the total thickness of material removed from SPY stalls or SPY sampling units before sampling.

^[b] LowerSPY-PS13a-2024 chromium concentration is less than the SMP soil management level of 57 mg/kg and will remain in place until final SPY decommissioning.

^[c] UpperSPY-PS6-2024 and UpperSPY-PS7-2024 copper concentrations are less than or equal to the SMP soil management level of 70 mg/kg and will remain in place until final SPY decommissioning. UpperSPY-PS7-2024 was resampled and the copper concentration was less than the approved screening criteria.

^[d] Maximum of SPY baseline soil samples collected in September 2018 and 2022.

^[e] Topock soil background concentrations (CH2M 2009a).

^[f] DOI approved the use of the SMP soil management level for dioxin and furans on April 2, 2024.

Notes:

Shaded values denoted with ^ exceed the applicable screening criteria

CARB = California Air Resources Board

DOI = U.S. Department of the Interior

FD = field duplicate

J = estimated

mg/kg = milligram(s) per kilogram

N = normal

NA = not available

ND = nondetect

ng/kg = nanogram(s) per kilogram

NTCRA = Non-Time-Critical Removal Action

QA = quality assurance

QC = quality control

RAG = removal action goal

SMP = Topock Groundwater Remedy Soil Management Plan

SPY = Soil Processing Yard

TEQ = toxicity equivalent

U = analyte was analyzed for but not detected at the specified detection limit

Figures

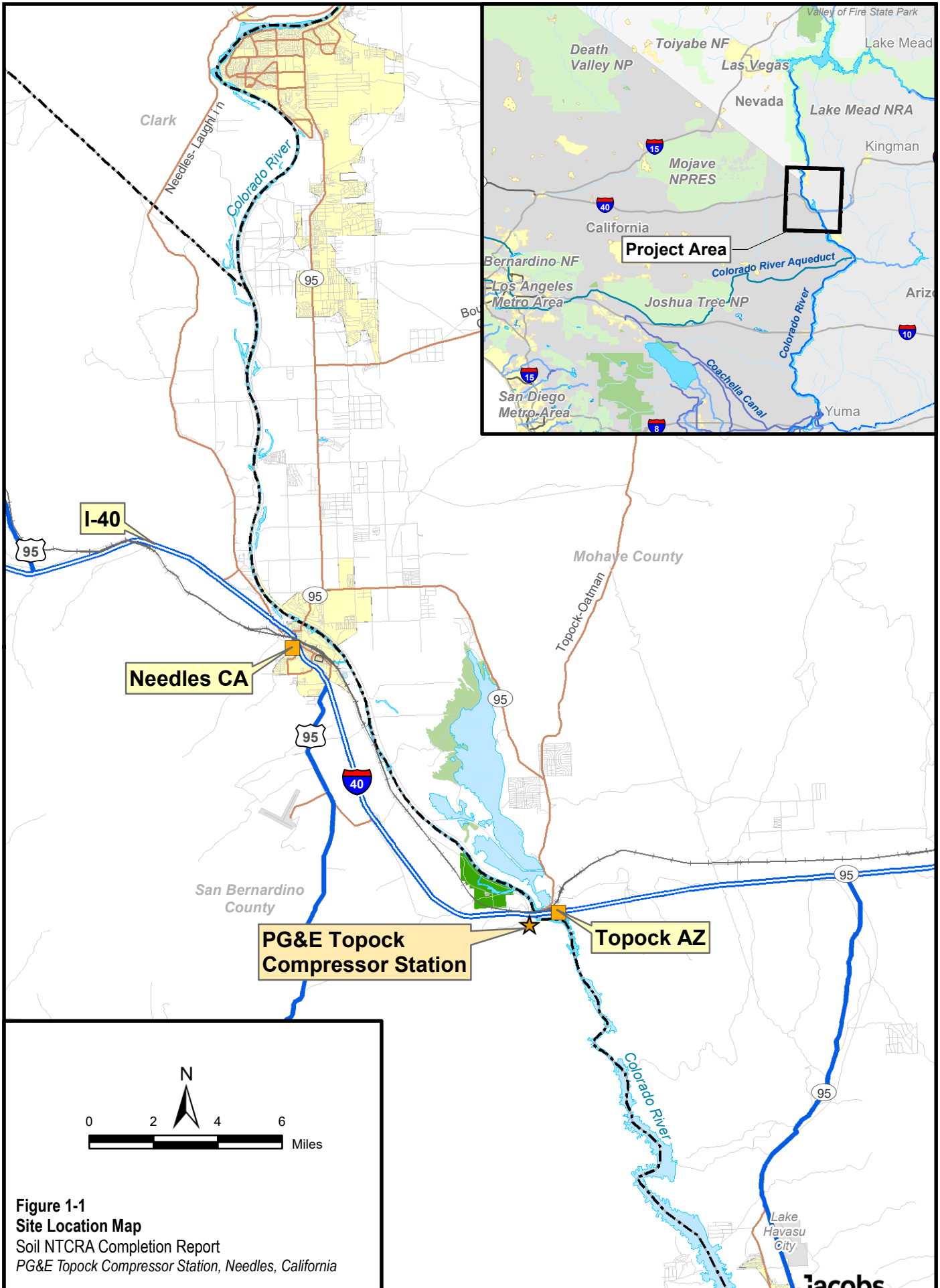
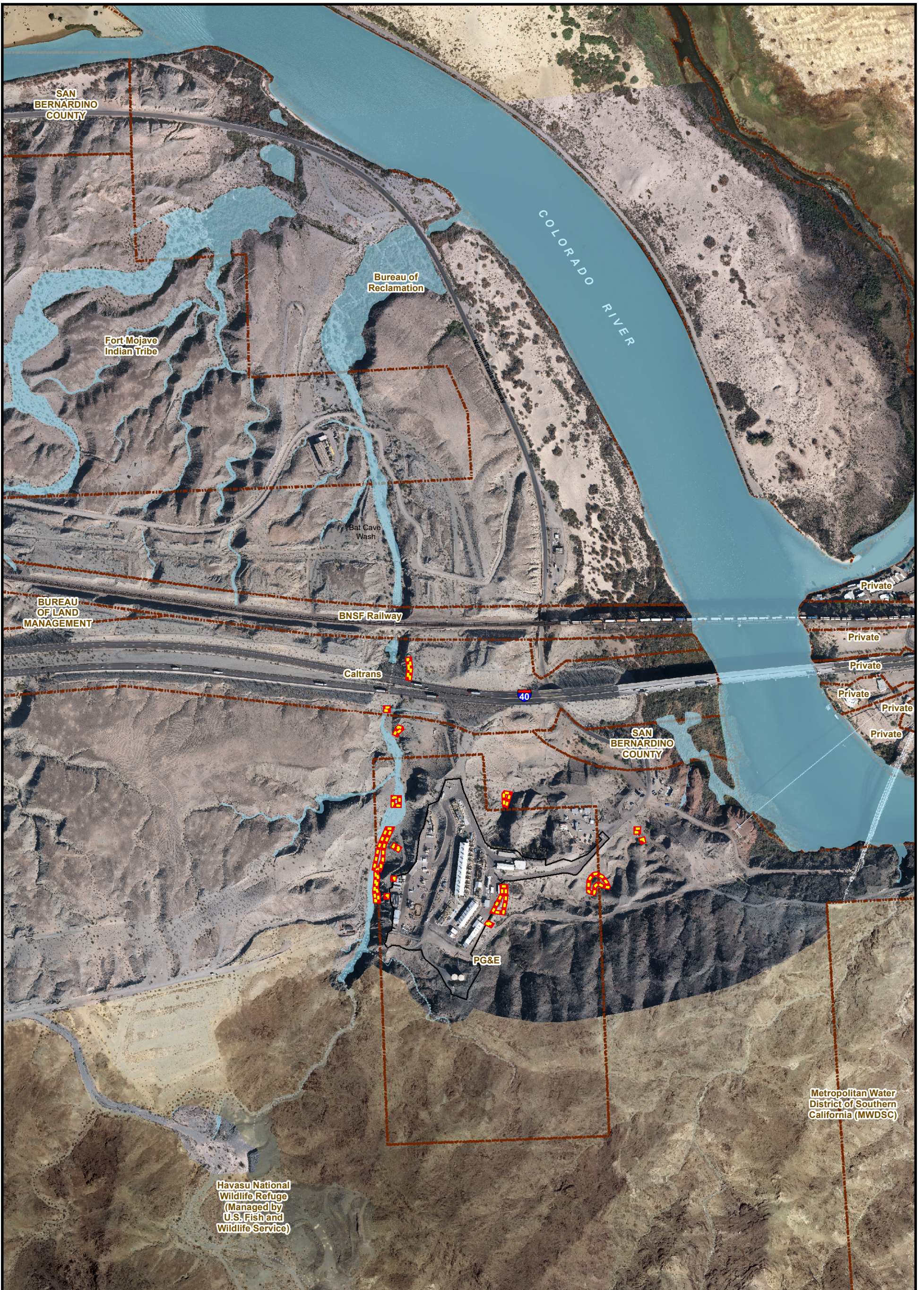


Figure 1-1
Site Location Map
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station, Needles, California

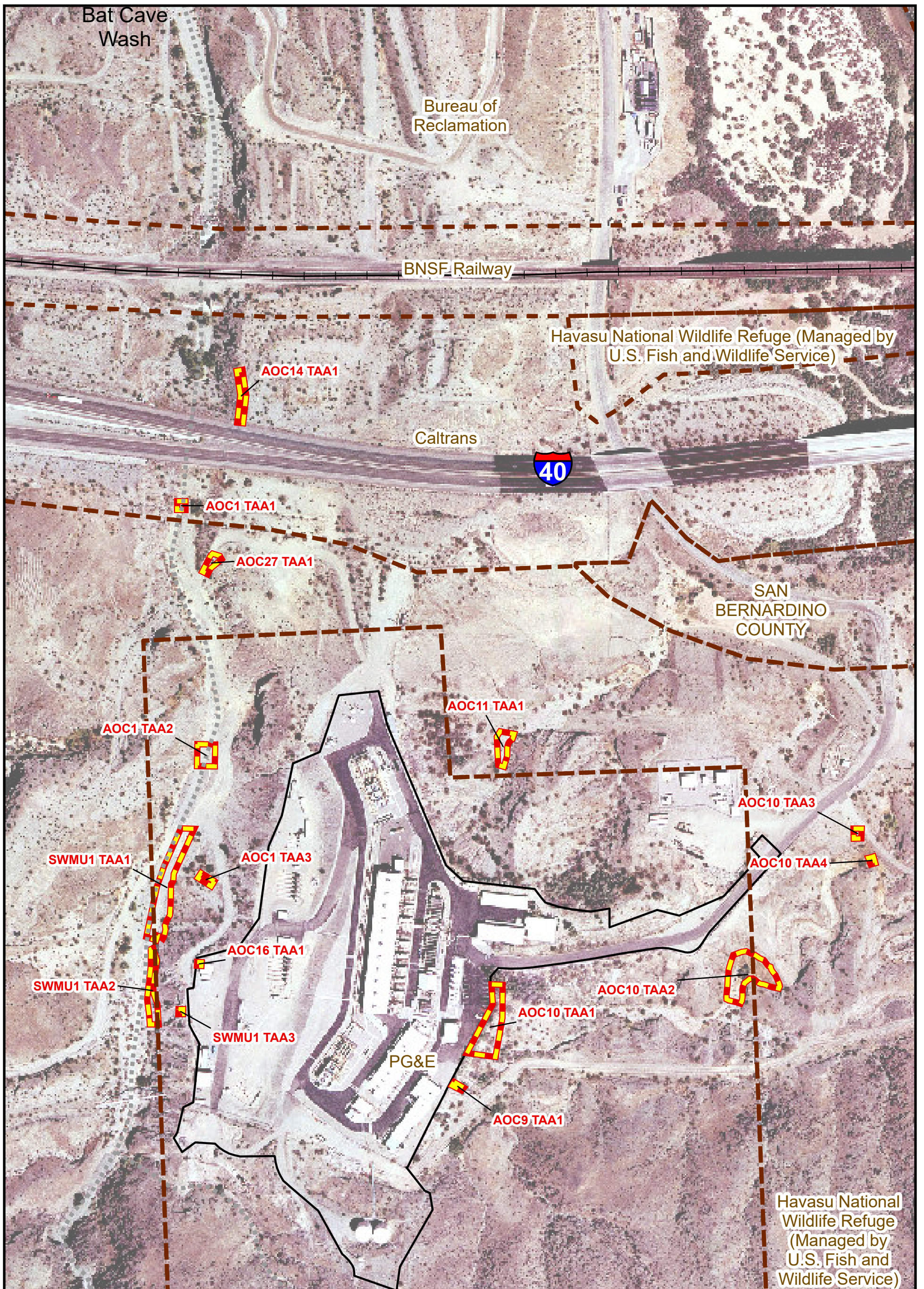


- LEGEND**
- Jurisdictional Waters and Wetlands
 - Parcel Boundaries
 - Topock Compressor Station Fence Line
 - Target Action Area




Note:
Aerial photo date 2011, 2017



Figure 1-2
Landowners and Jurisdictional Waters Map
Soil NTCRA Completion Report
PG&E Topock Compressor Station, Needles, California



LEGEND

-  Target Action Area
-  Parcel Boundaries
-  Topock Compressor Station Fence Line

Aerial Photo Date: 2011

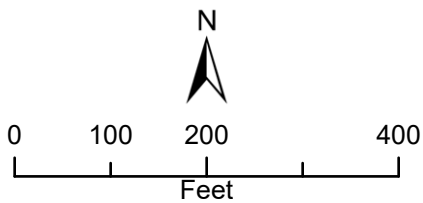
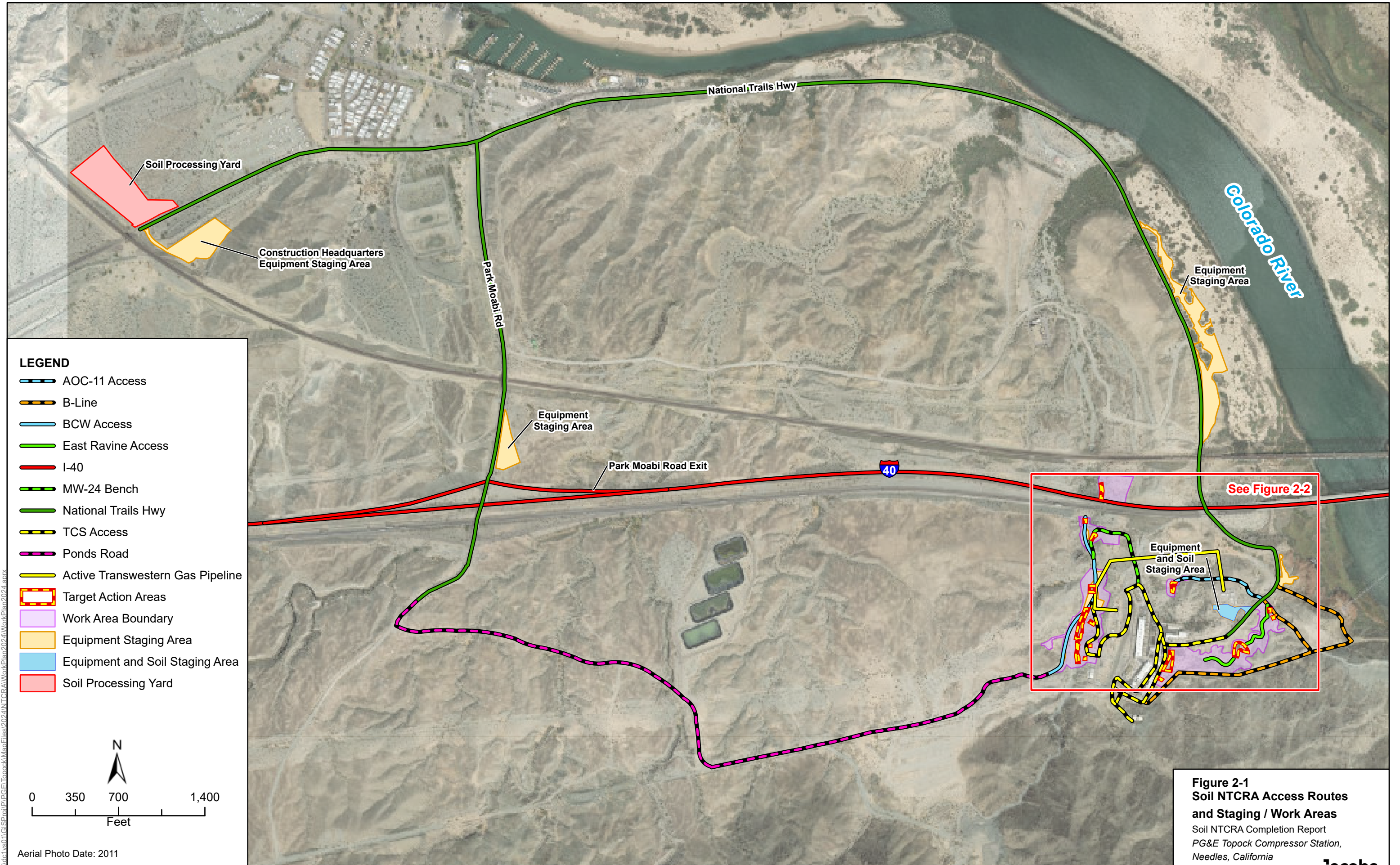
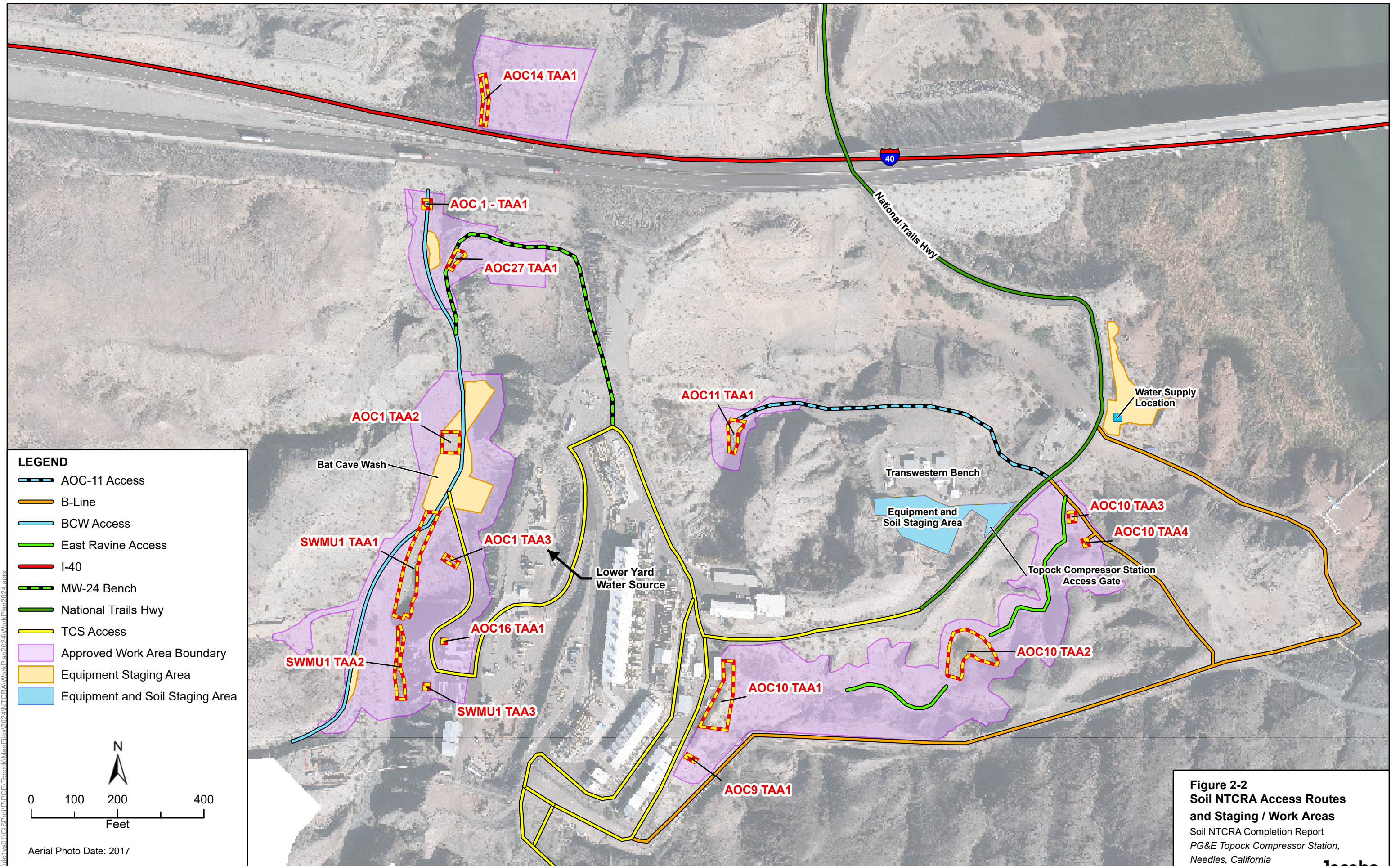
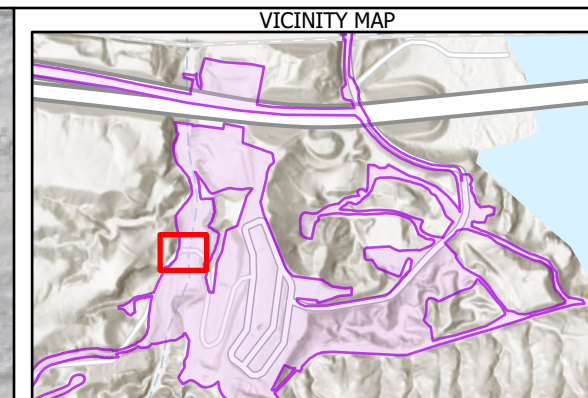
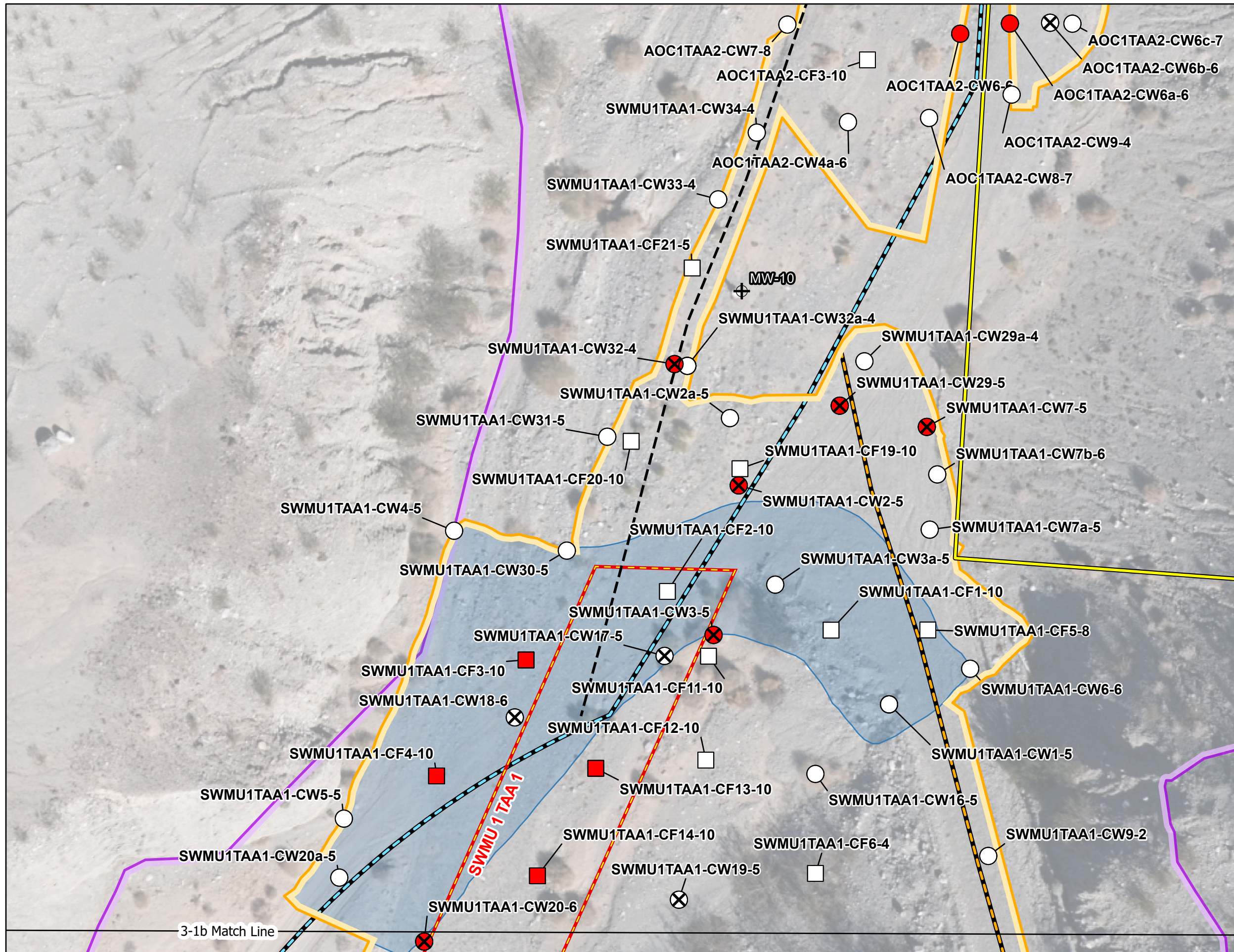


Figure 1-3
Soil NTCRA Target Action Areas
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station,
 Needles, California

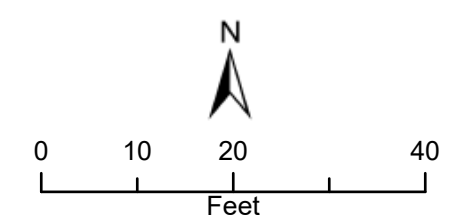


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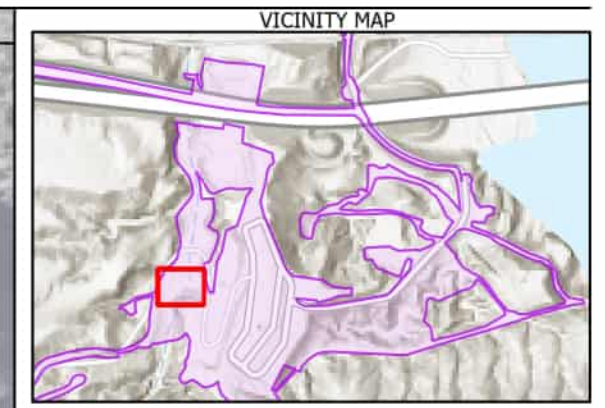
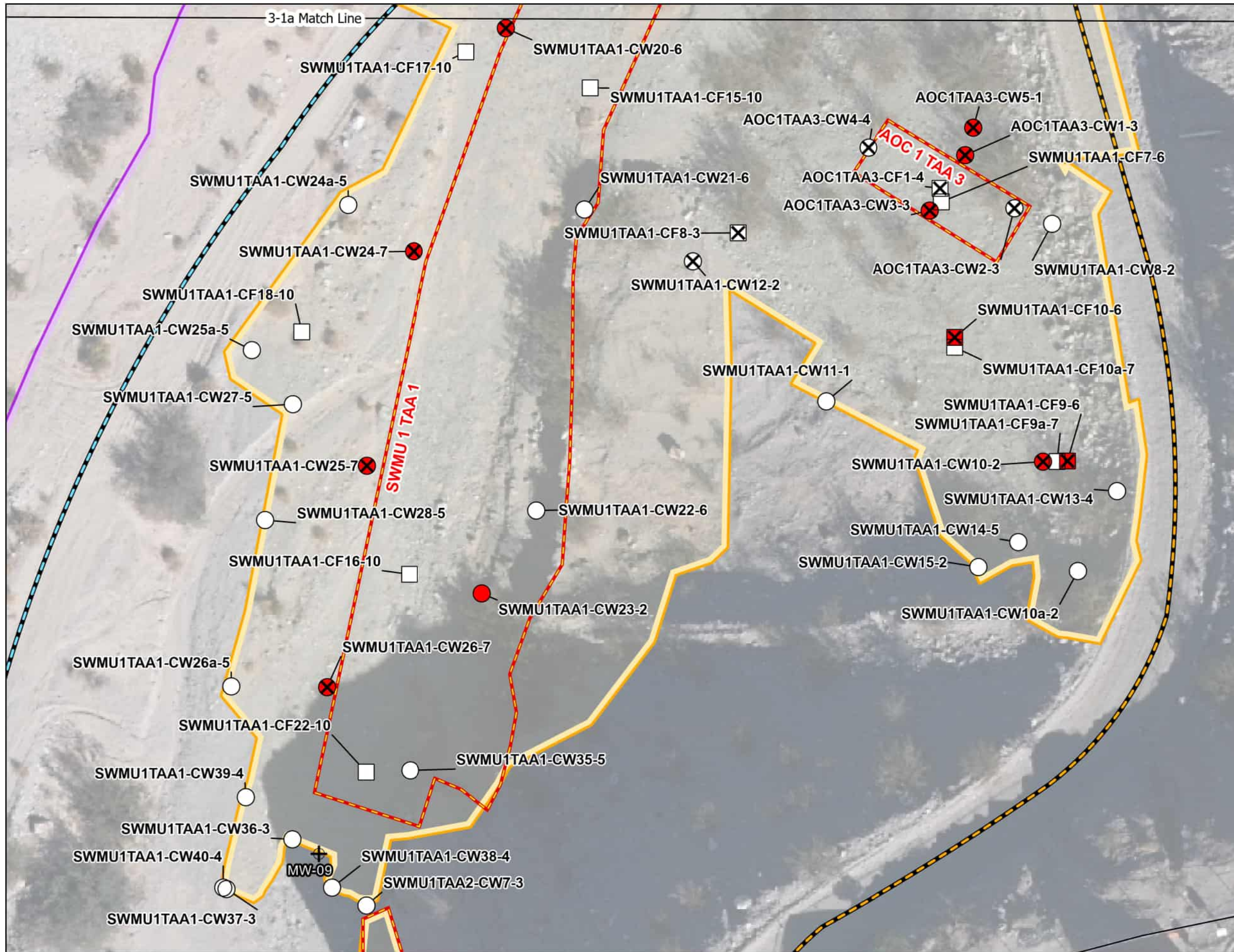
- LEGEND**
- Confirmation Floor Sample
 - Confirmation Wall Sample
 - Sample Exceeds Removal Action Goal
 - ⊗ Sample Removed
 - ⊕ Monitoring Well
 - Active Transwestern Gas Pipeline
 - - - Abandoned TCS-4 Pipeline
 - BCW Access
 - TCS Access
 - ▭ Target Action Area
 - Soil NTCRA Excavation Extent
 - Approved Work Area Boundary
 - Groundwater Remedy I-2 Clean Soil Corridor



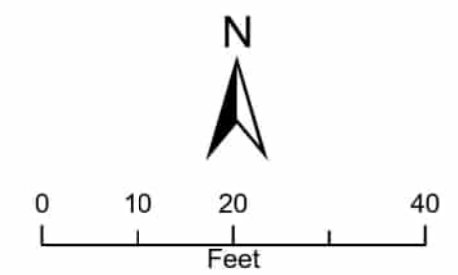
Sample depth is indicated by the final numbers in the sample ID, for example AOC1TAA1-CF1-5 was collected at 5 feet bgs.

Aerial Photo Date: 2017
 Credits: Esri Community Maps Contributors, California State Parks, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, USFWS, Esri, NASA, NGA, USGS, FEMA

FIGURE 3-1a
SWMU1 TAA1 Site Map - North
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station,
 Needles, California



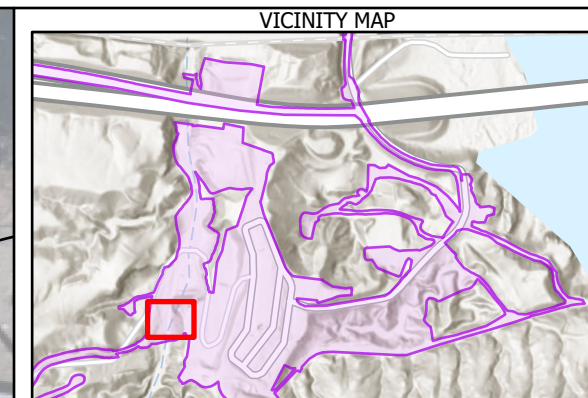
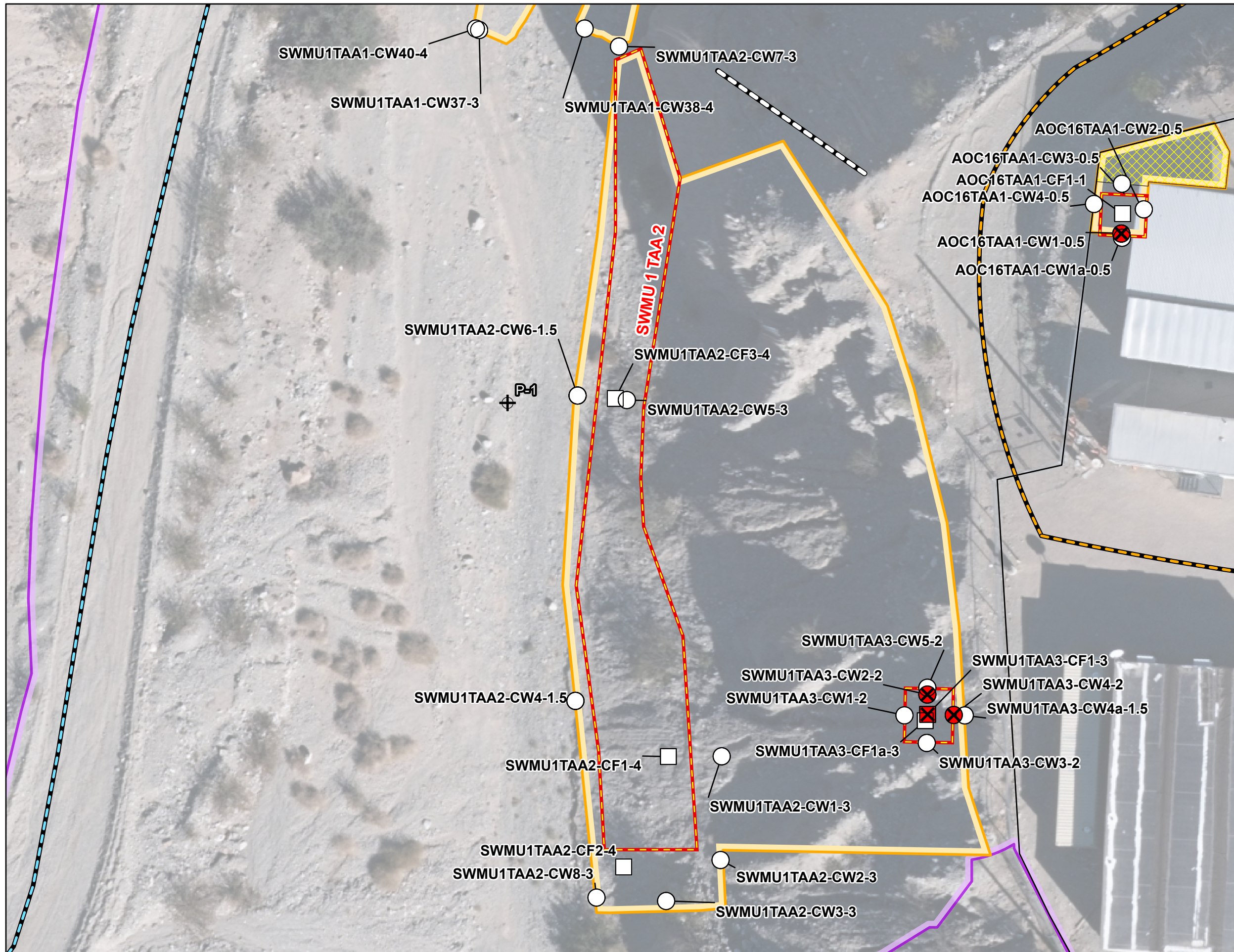
- LEGEND**
- Confirmation Floor Sample
 - Confirmation Wall Sample
 - Sample Exceeds Removal Action Goal
 - ⊗ Sample Removed
 - ⊕ Monitoring Well
 - BCW Access
 - TCS Access
 - Target Action Area
 - Soil NTCRA Excavation Extent
 - Approved Work Area Boundary
 - Topock Compressor Station Fence Line



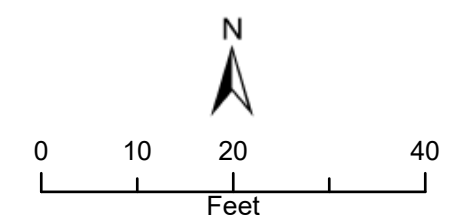
Sample depth is indicated by the final numbers in the sample ID, for example AOC1TAA1-CF1-5 was collected at 5 feet bgs.

Aerial Photo Date: 2017
 Credits: Esri Community Maps Contributors, California State Parks, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc., METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, USFWS, Esri, NASA, NGA, USGS, FEMA

FIGURE 3-1b
SWMU1 TAA1 Site Map - South
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station,
 Needles, California



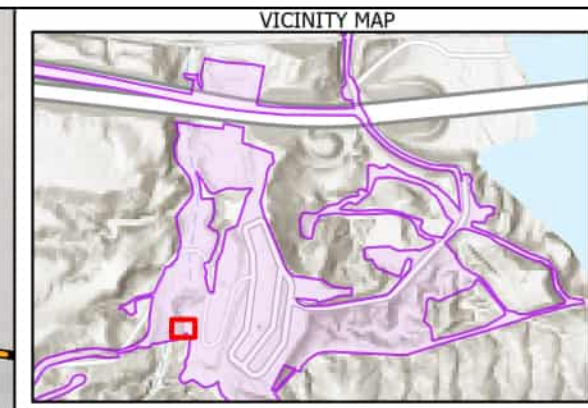
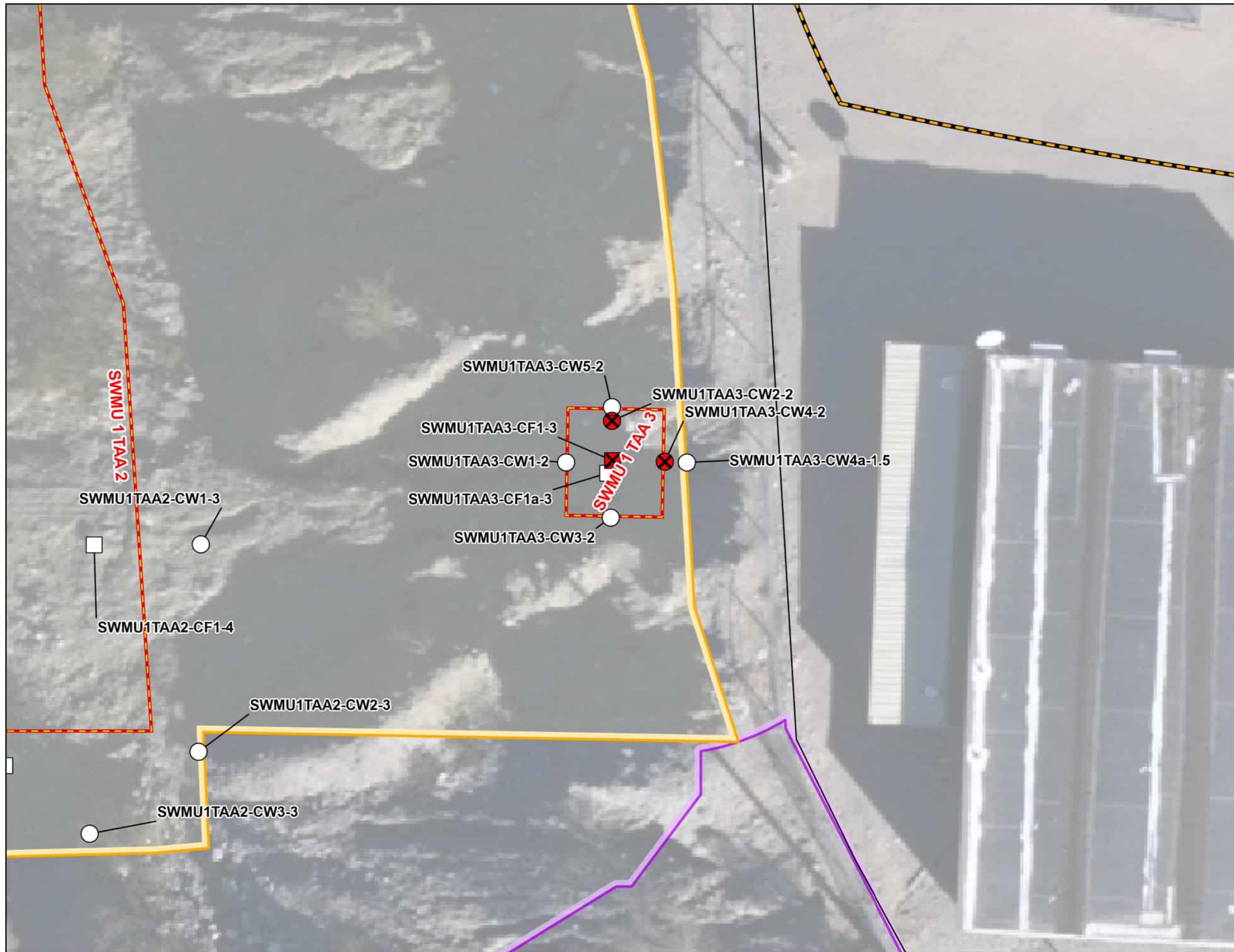
- LEGEND**
- Confirmation Floor Sample
 - Confirmation Wall Sample
 - Sample Exceeds Removal Action Goal
 - ✕ Sample Removed
 - ⊕ Monitoring Well
 - TCS Discharge Pipeline (Removed)
 - BCW Access
 - TCS Access
 - Target Action Area
 - Soil NTCRA Excavation Extent
 - Approved Work Area Boundary
 - Topock Compressor Station Fence Line
 - Soil NTCRA Surface Removal Only



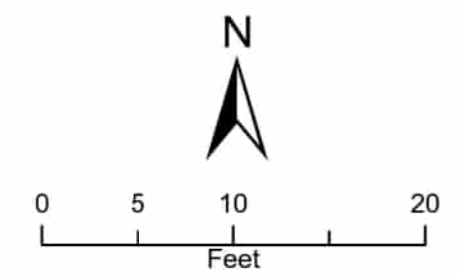
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Aerial Photo Date: 2017
Credits: Esri Community Maps Contributors, California State Parks, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, USFWS, Esri, NASA, NGA, USGS, FEMA

FIGURE 3-2
SWMU1 TAA2 Site Map
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station,
 Needles, California



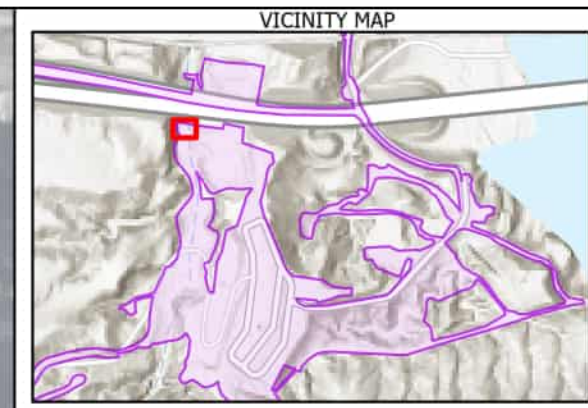
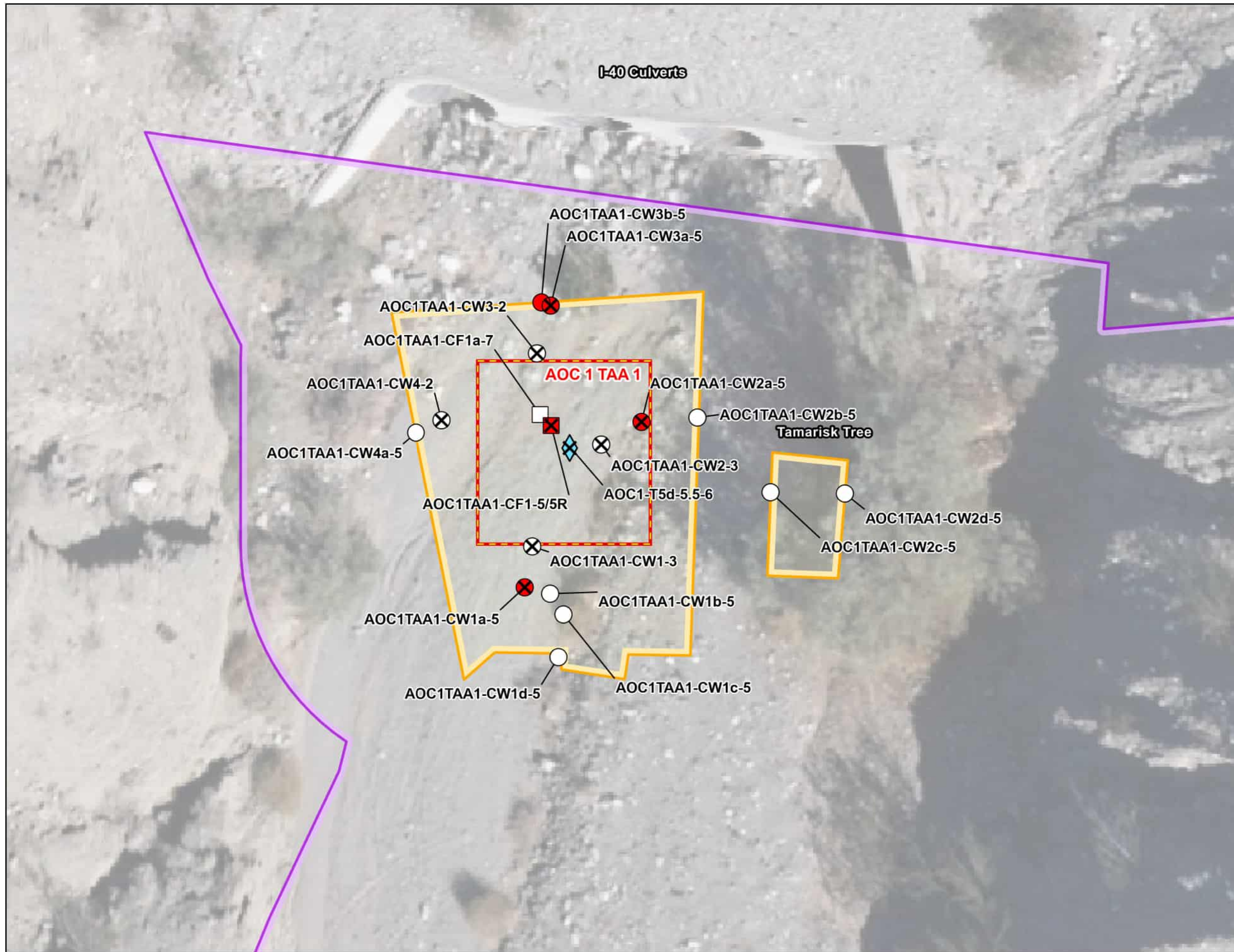
- LEGEND**
- Confirmation Floor Sample
 - Confirmation Wall Sample
 - Sample Exceeds Removal Action Goal
 - ✕ Sample Removed
 - TCS Access
 - ▭ Target Action Area
 - ▭ Soil NTCRA Excavation Extent
 - ▭ Approved Work Area Boundary
 - ▭ Topock Compressor Station Fence Line



Sample depth is indicated by the final numbers in the sample ID, for example AOC1TAA1-CF1-5 was collected at 5 feet bgs.

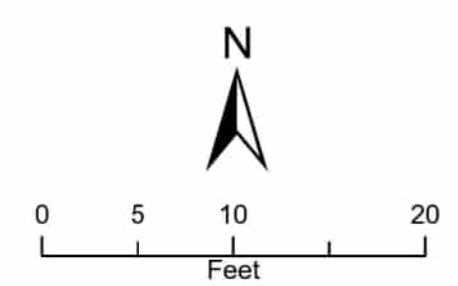
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FIGURE 3-3
SWMU1 TAA3 Site Map
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station,
 Needles, California



LEGEND

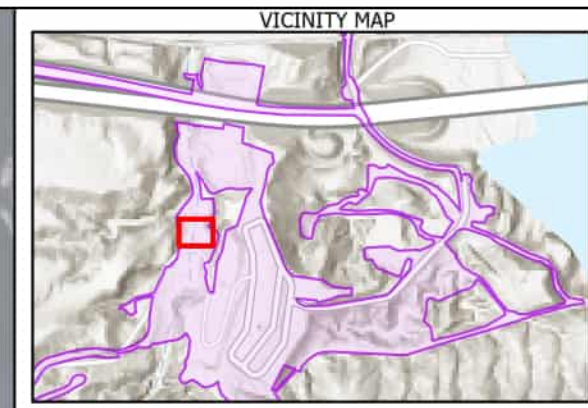
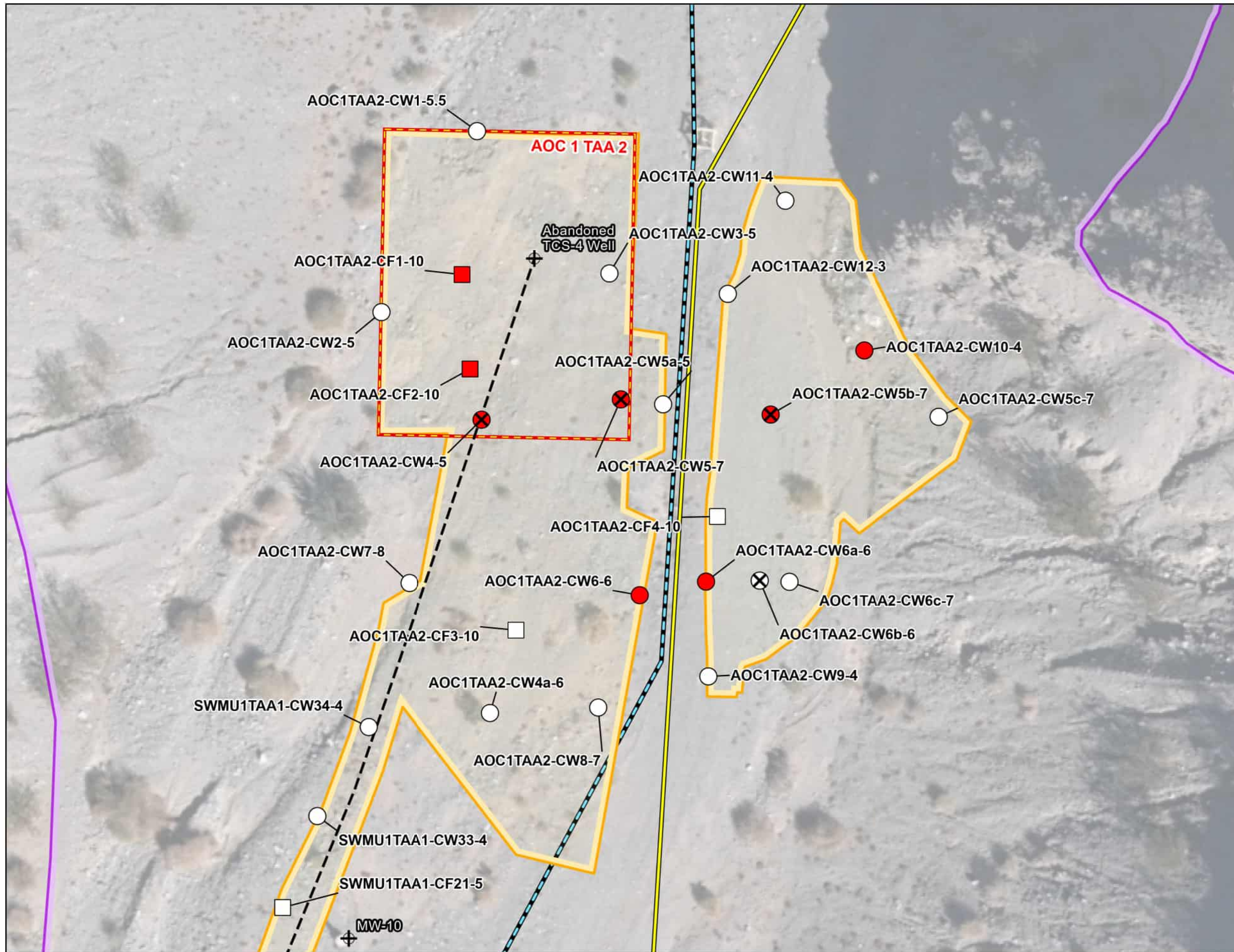
- Confirmation Floor Sample
- Confirmation Wall Sample
- Sample Exceeds Removal Action Goal
- ◆ RFI Vol 3 Data Gap Sample
- ⊗ Sample Removed
- ▭ Target Action Area
- ▭ Soil NTCRA Excavation Extent
- ▭ Approved Work Area Boundary



Sample depth is indicated by the final numbers in the sample ID, for example AOC1TAA1-CF1-5 was collected at 5 feet bgs.

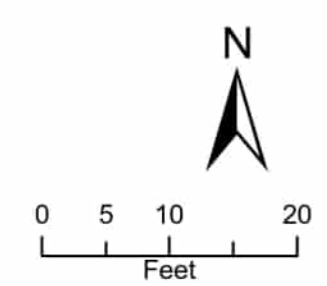
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FIGURE 3-4
AOC1 TAA1 Site Map
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station,
 Needles, California



LEGEND

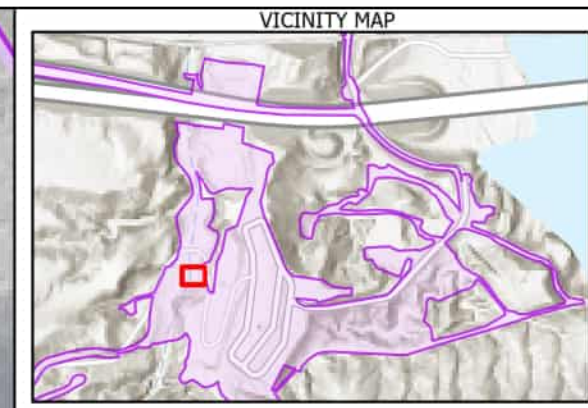
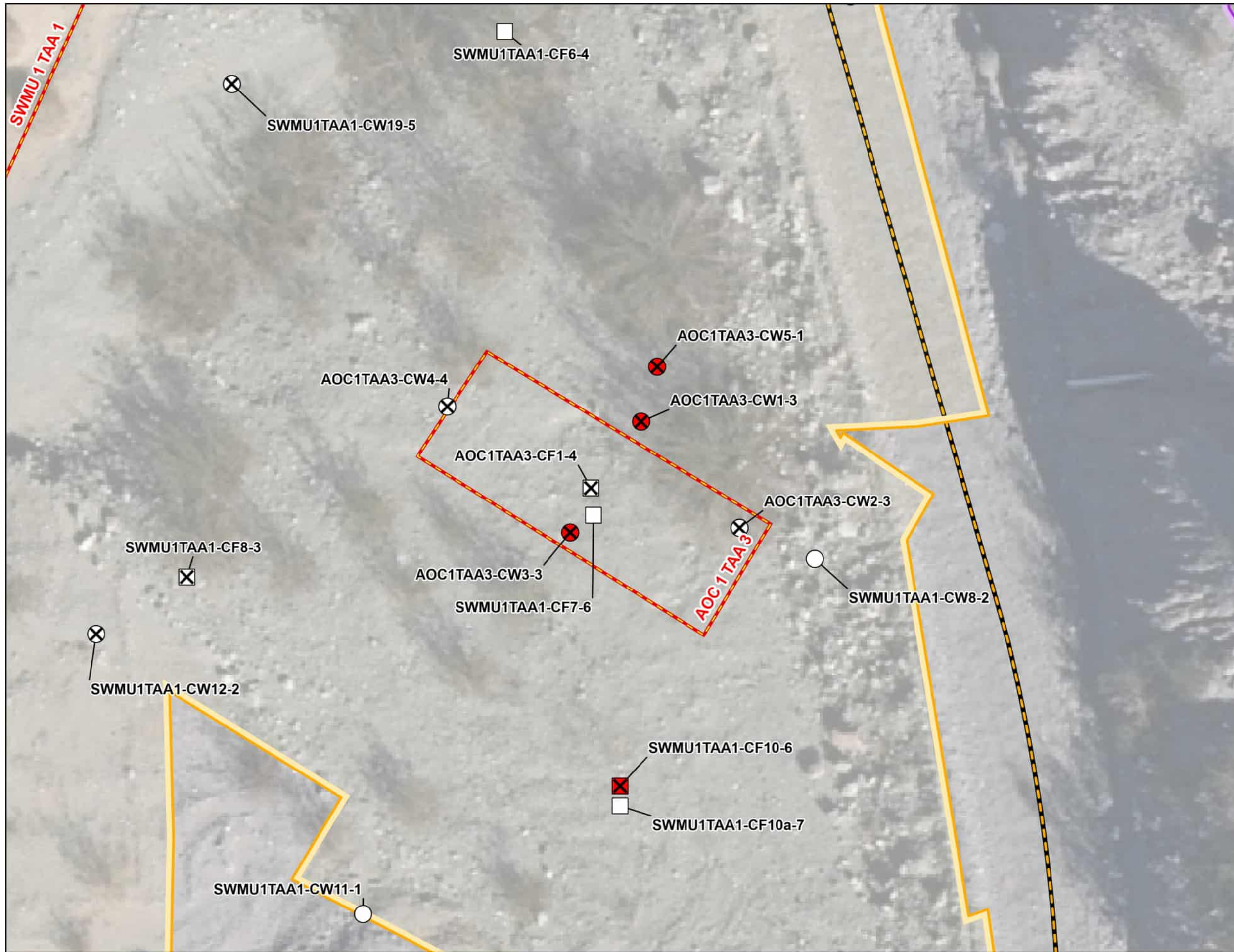
- Confirmation Floor Sample
- Confirmation Wall Sample
- Sample Exceeds Removal Action Goal
- ✕ Sample Removed
- ⊕ Monitoring Well
- Active Transwestern Gas Pipeline
- - - Abandoned TCS-4 Pipeline
- BCW Access
- ▭ Target Action Area
- ▭ Soil NTCRA Excavation Extent
- ▭ Approved Work Area Boundary



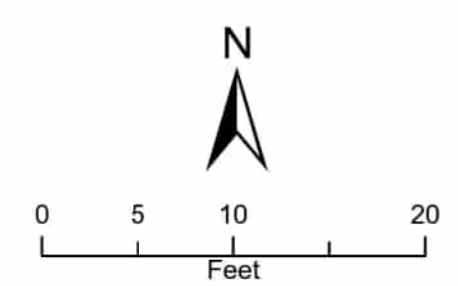
Sample depth is indicated by the final numbers in the sample ID, for example AOC1TAA1-CF1-5 was collected at 5 feet bgs.

Aerial Photo Date: 2017
Credits: Esri Community Maps Contributors, California State Parks, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc., METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, USFWS, Esri, NASA, NGA, USGS, FEMA

FIGURE 3-5
AOC1 TAA2 Site Map
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station,
 Needles, California



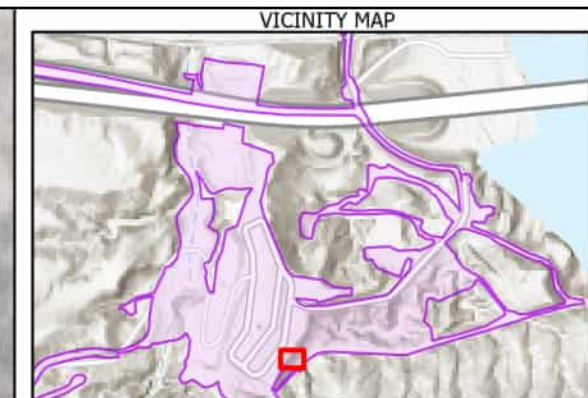
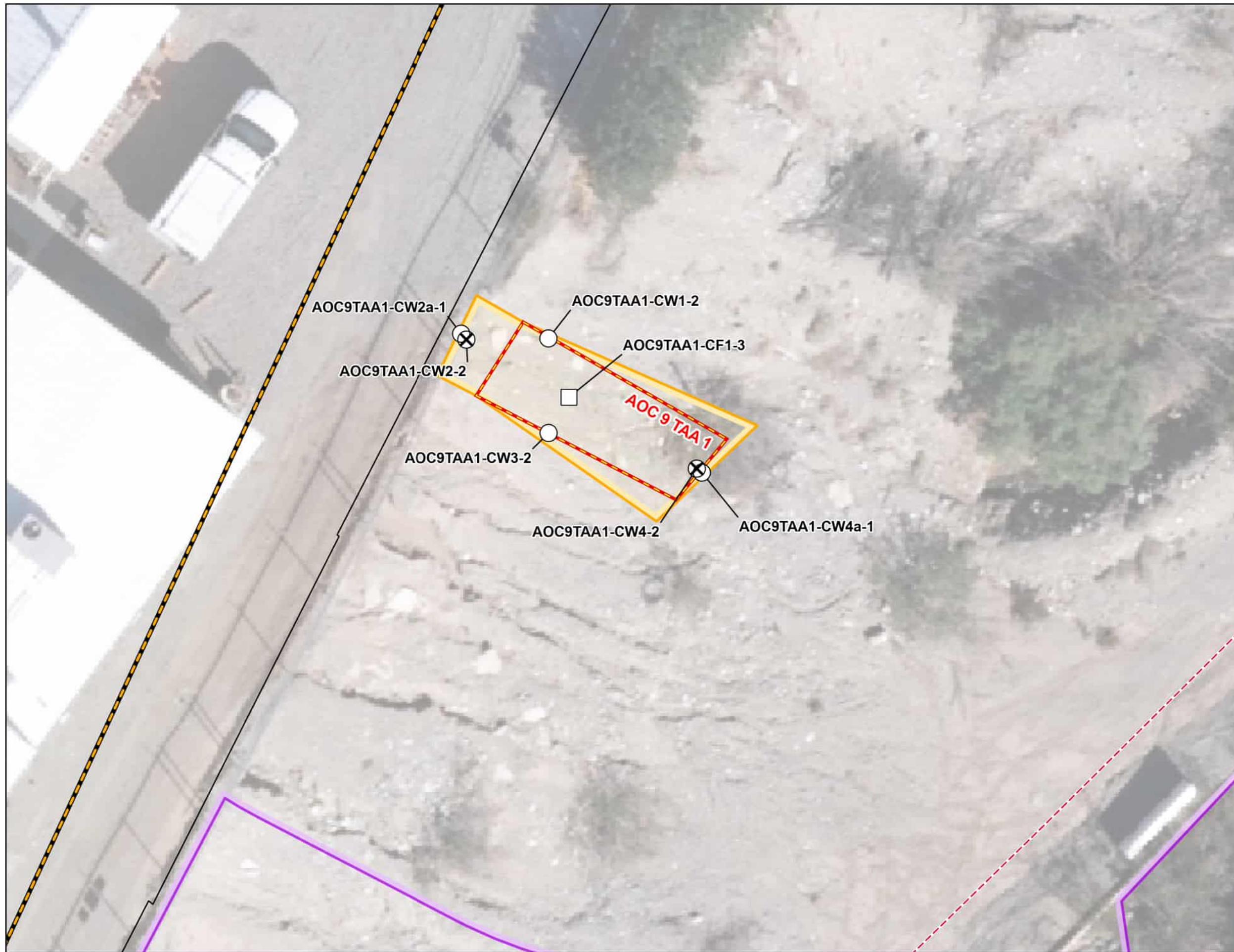
- LEGEND**
- Confirmation Floor Sample
 - Confirmation Wall Sample
 - Sample Exceeds Removal Action Goal
 - ⊗ Sample Removed
 - TCS Access
 - ▭ Target Action Area
 - ▭ Soil NTCRA Excavation Extent
 - ▭ Approved Work Area Boundary



Sample depth is indicated by the final numbers in the sample ID, for example AOC1TAA1-CF1-5 was collected at 5 feet bgs.

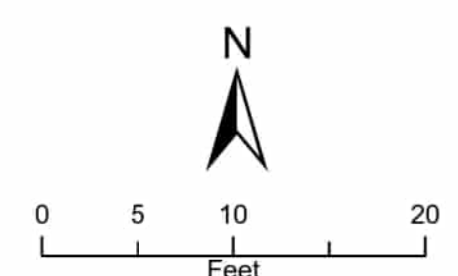
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FIGURE 3-6
AOC1 TAA3 Site Map
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station,
 Needles, California



LEGEND

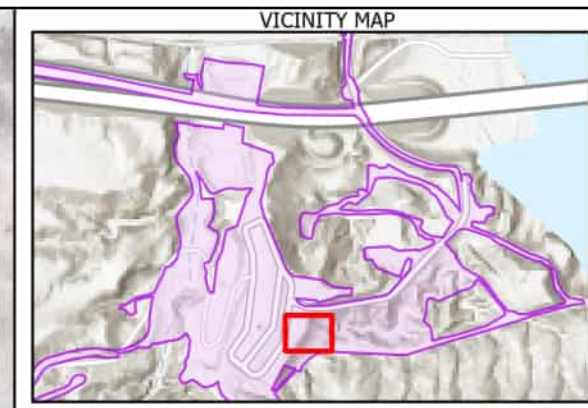
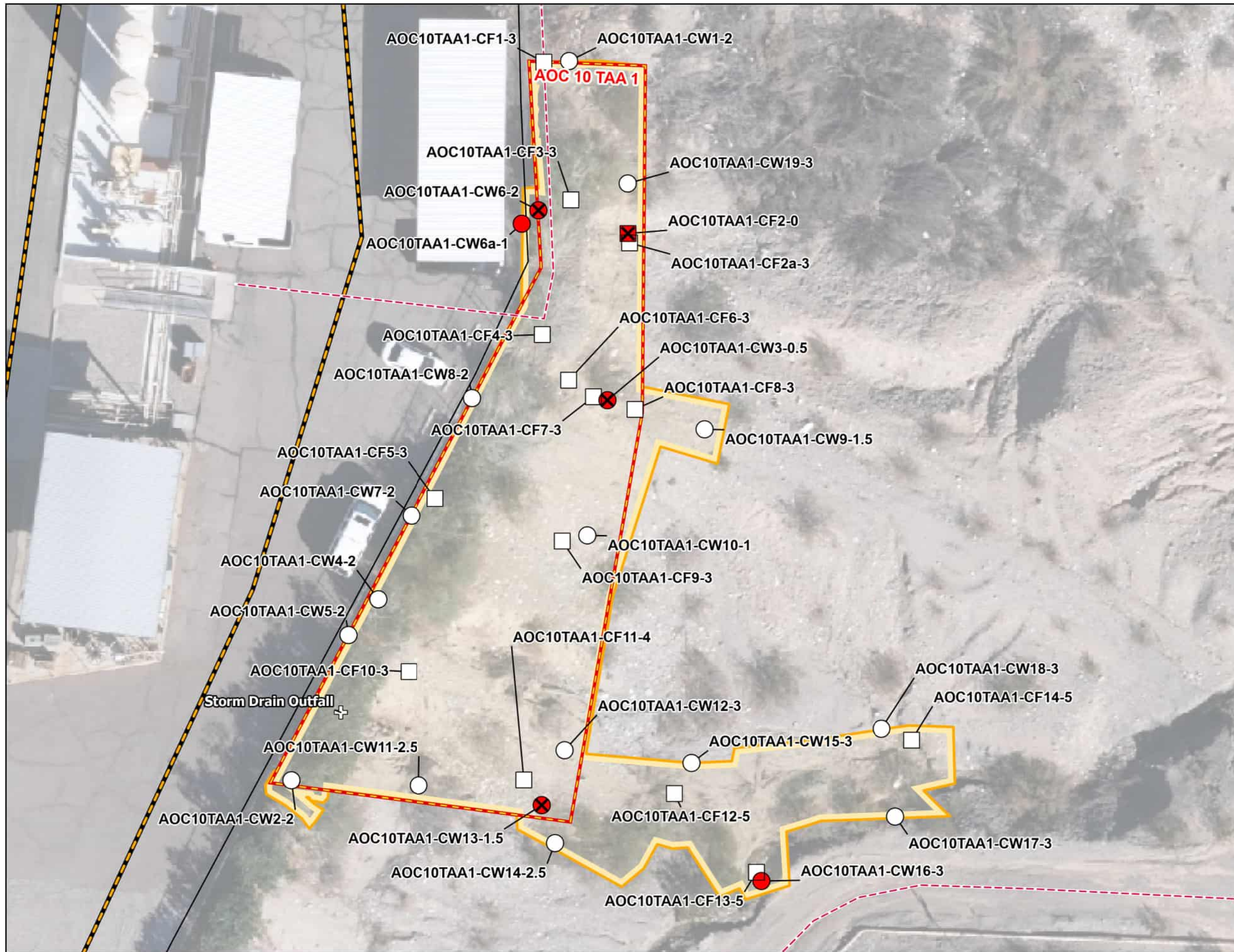
- Confirmation Floor Sample
- Confirmation Wall Sample
- ⊗ Sample Removed
- - - Electric Utility Line
- - - TCS Access
- - - Target Action Area
- Soil NTCRA Excavation Extent
- Approved Work Area Boundary
- Topock Compressor Station Fence Line



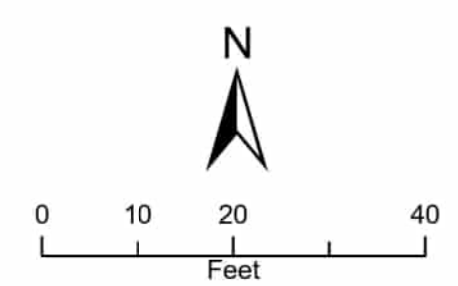
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Aerial Photo Date: 2017
Credits: Esri Community Maps Contributors, California State Parks, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc., METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, USFWS, Esri, NASA, NGA, USGS, FEMA

FIGURE 3-7
AOC9 TAA1 Site Map
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station,
 Needles, California



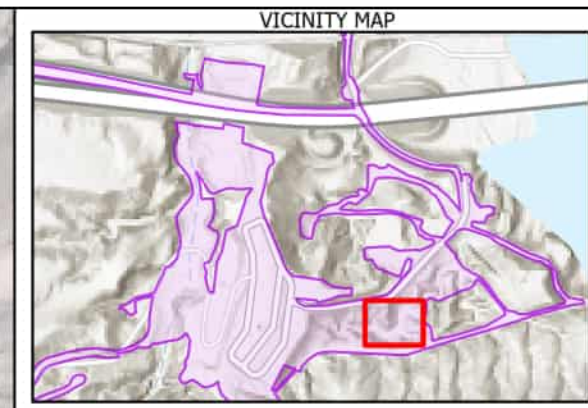
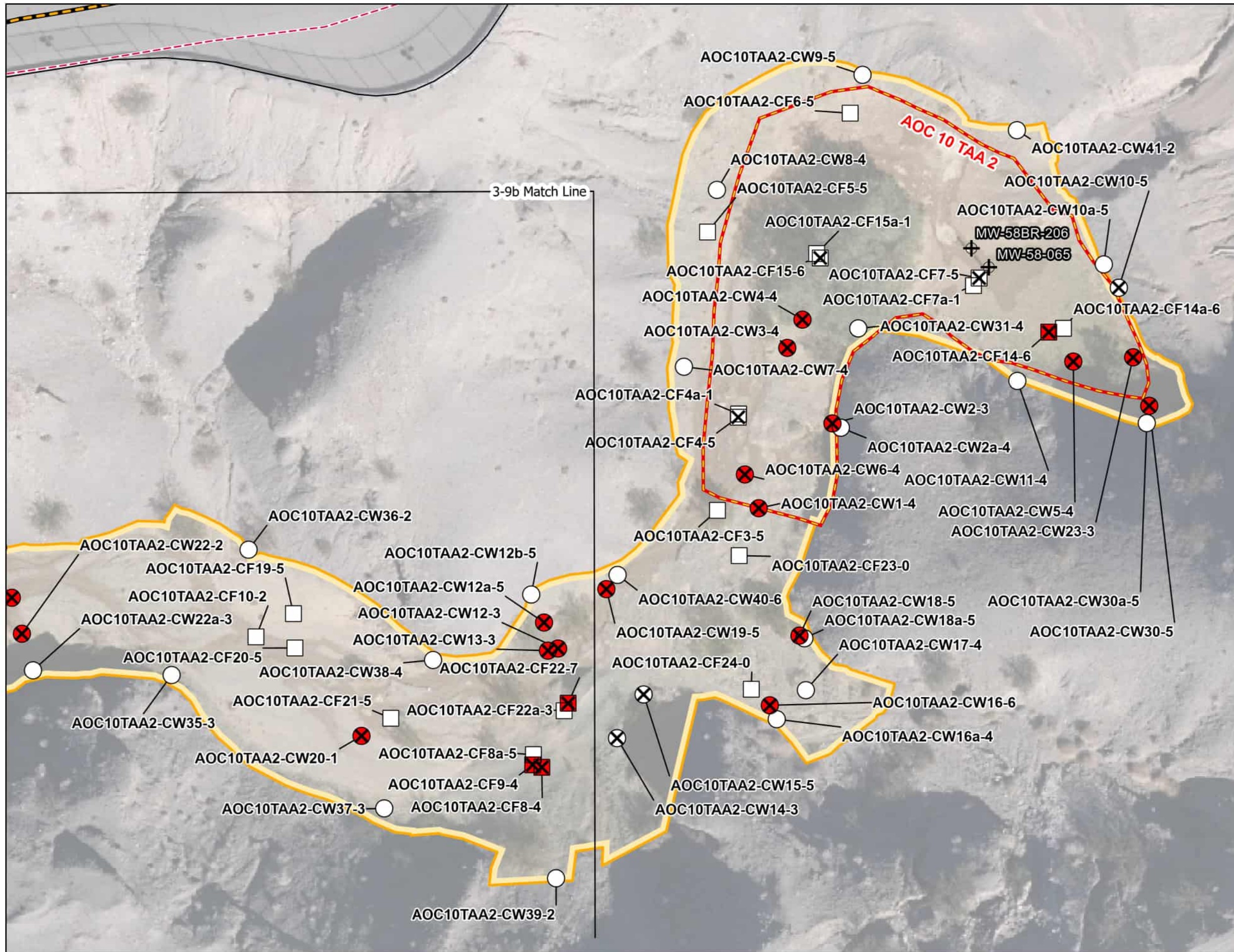
- LEGEND**
- Confirmation Floor Sample
 - Confirmation Wall Sample
 - Sample Exceeds Removal Action Goal
 - ✕ Sample Removed
 - - - Electric Utility Line
 - - - TCS Access
 - Target Action Area
 - Soil NTCRA Excavation Extent
 - Approved Work Area Boundary
 - Topock Compressor Station Fence Line



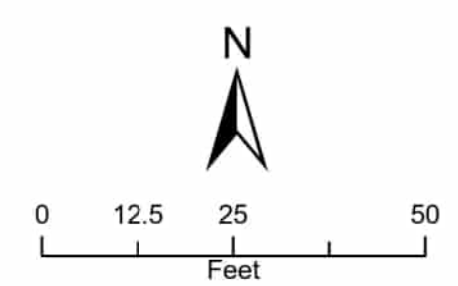
Sample depth is indicated by the final numbers in the sample ID, for example AOC1TAA1-CF1-5 was collected at 5 feet bgs.

Aerial Photo Date: 2017
Credits: Esri Community Maps Contributors, California State Parks, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc., METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, USFWS, Esri, NASA, NGA, USGS, FEMA

FIGURE 3-8
AOC10 TAA1 Site Map
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station,
 Needles, California



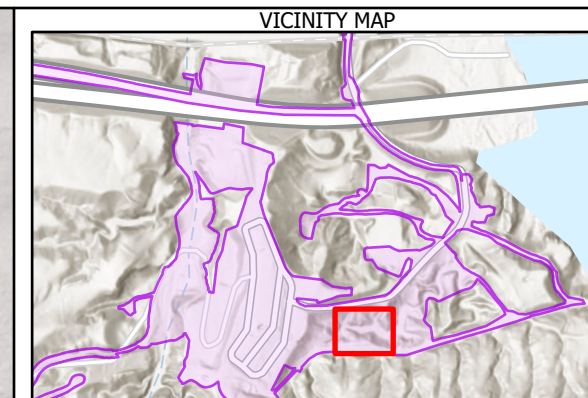
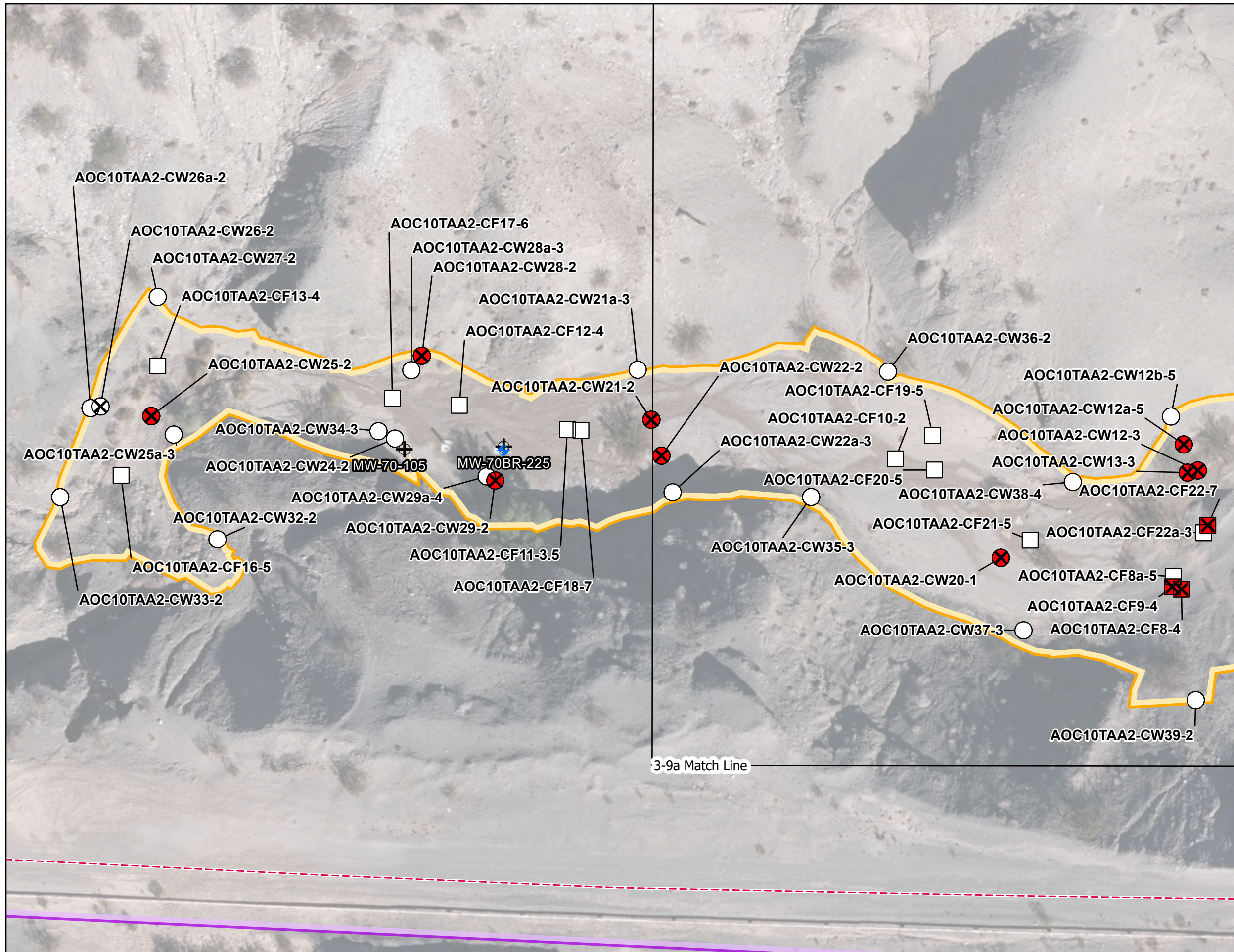
- LEGEND**
- Confirmation Floor Sample
 - Confirmation Wall Sample
 - Sample Exceeds Removal Action Goal
 - ⊗ Sample Removed
 - ⊕ Monitoring Well
 - - - Electric Utility Line
 - TCS Access
 - ▭ Target Action Area
 - Soil NTCRA Excavation Extent
 - ▭ Approved Work Area Boundary
 - ▭ Topock Compressor Station Fence Line



Sample depth is indicated by the final numbers in the sample ID, for example AOC1TAA1-CF1-5 was collected at 5 feet bgs.

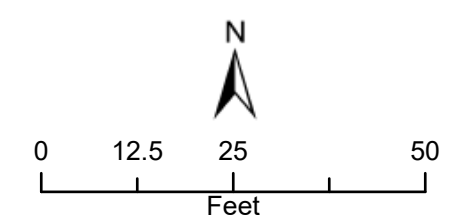
Aerial Photo Date: 2017
Credits: Esri Community Maps Contributors, California State Parks, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc., METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, USFWS, Esri, NASA, NGA, USGS, FEMA

FIGURE 3-9a
AOC10 TAA2 Site Map - East
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station,
 Needles, California



LEGEND

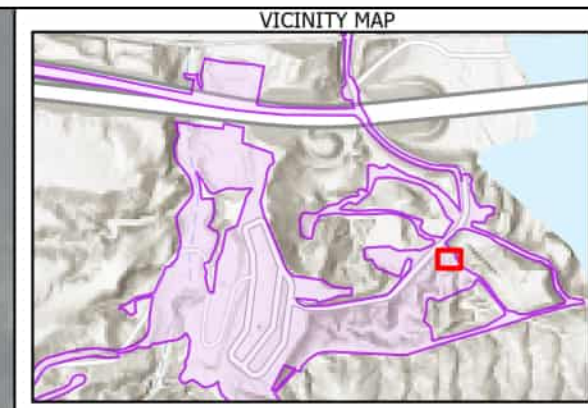
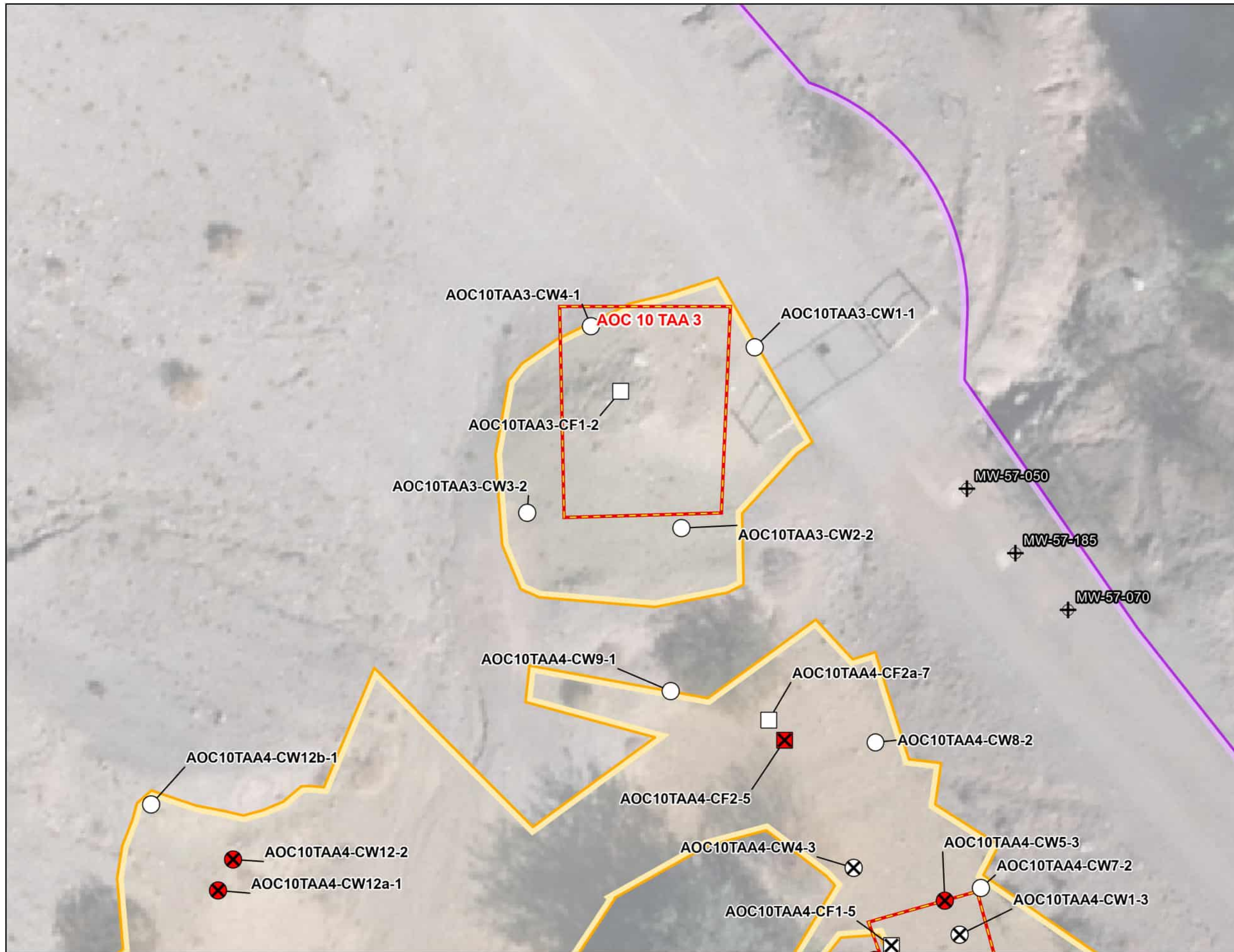
- Confirmation Floor Sample
- Confirmation Wall Sample
- Sample Exceeds Removal Action Goal
- ⊗ Sample Removed
- ⊕ Monitoring Well
- ⊕ ER-6 Groundwater Remedy Well
- - - Electric Utility Line
- ⊔ Abandoned TCS-4 Pipeline
- ▭ Target Action Area
- ▭ Soil NTCRA Excavation Extent
- ▭ Approved Work Area Boundary
- ▭ Topock Compressor Station Fence Line



Sample depth is indicated by the final numbers in the sample ID, for example AOC1TAA1-CF1-5 was collected at 5 feet bgs.

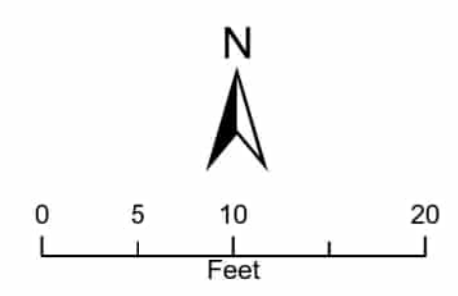
Aerial Photo Date: 2017
Credits: Esri Community Maps Contributors, California State Parks, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, USFWS, Esri, NASA, NGA, USGS, FEMA

FIGURE 3-9b
AOC10 TAA2 Site Map - West
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station,
 Needles, California



LEGEND

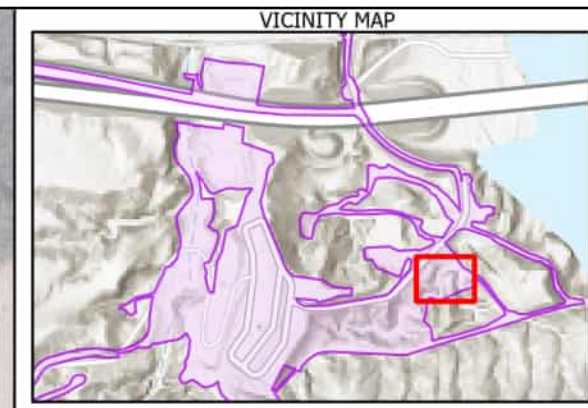
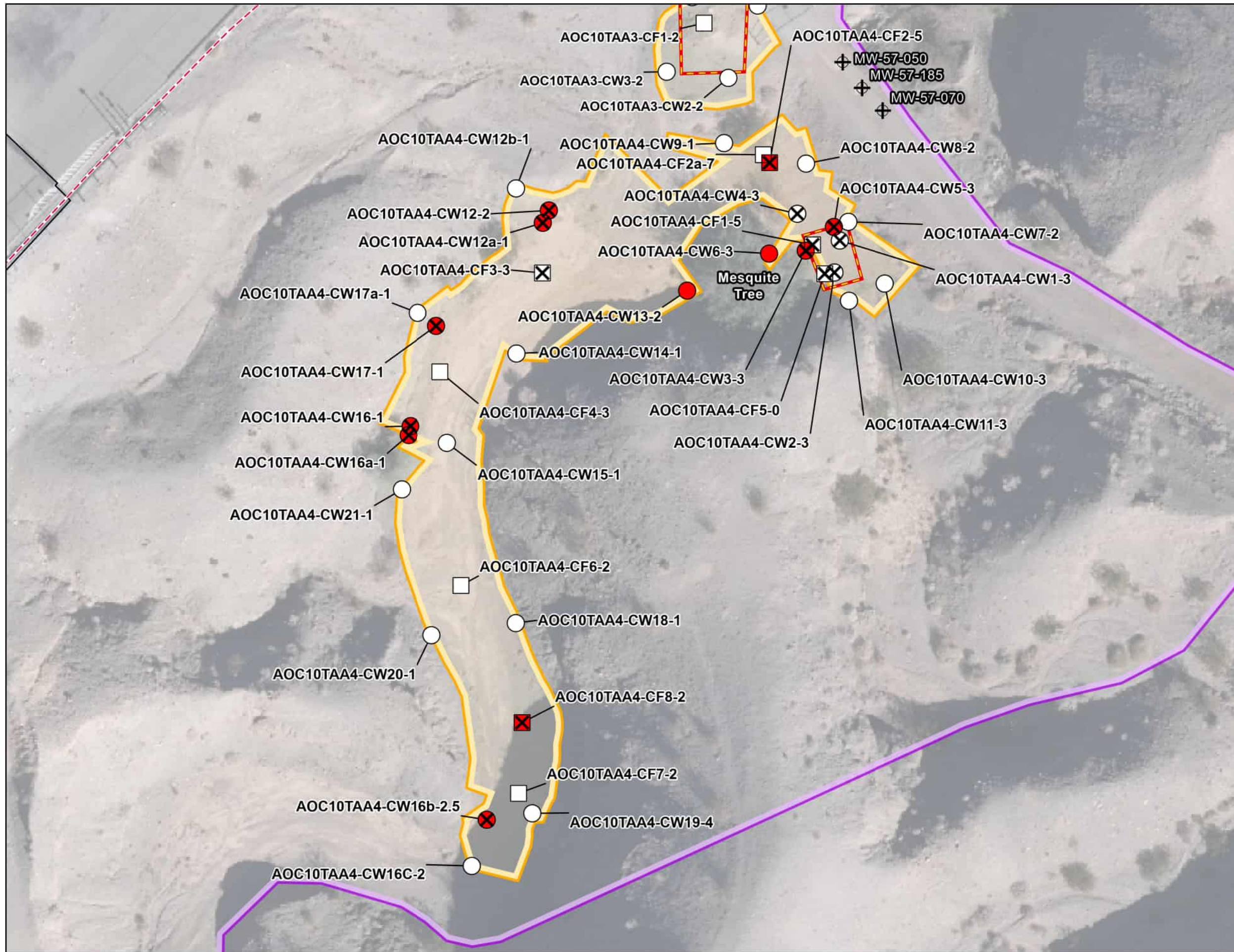
- Confirmation Floor Sample
- Confirmation Wall Sample
- Sample Exceeds Removal Action Goal
- ✕ Sample Removed
- ⊕ Monitoring Well
- ▭ Target Action Area
- ▭ Soil NTCRA Excavation Extent
- ▭ Approved Work Area Boundary



Sample depth is indicated by the final numbers in the sample ID, for example AOC1TAA1-CF1-5 was collected at 5 feet bgs.

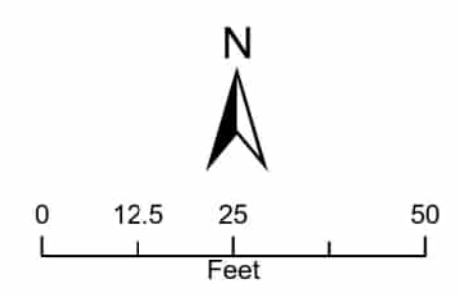
Aerial Photo Date: 2017
Credits: Esri Community Maps Contributors, California State Parks, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc., METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, USFWS, Esri, NASA, NGA, USGS, FEMA

FIGURE 3-10
AOC10 TAA3 Site Map
Soil NTCRA Completion Report
PG&E Topock Compressor Station,
Needles, California



LEGEND

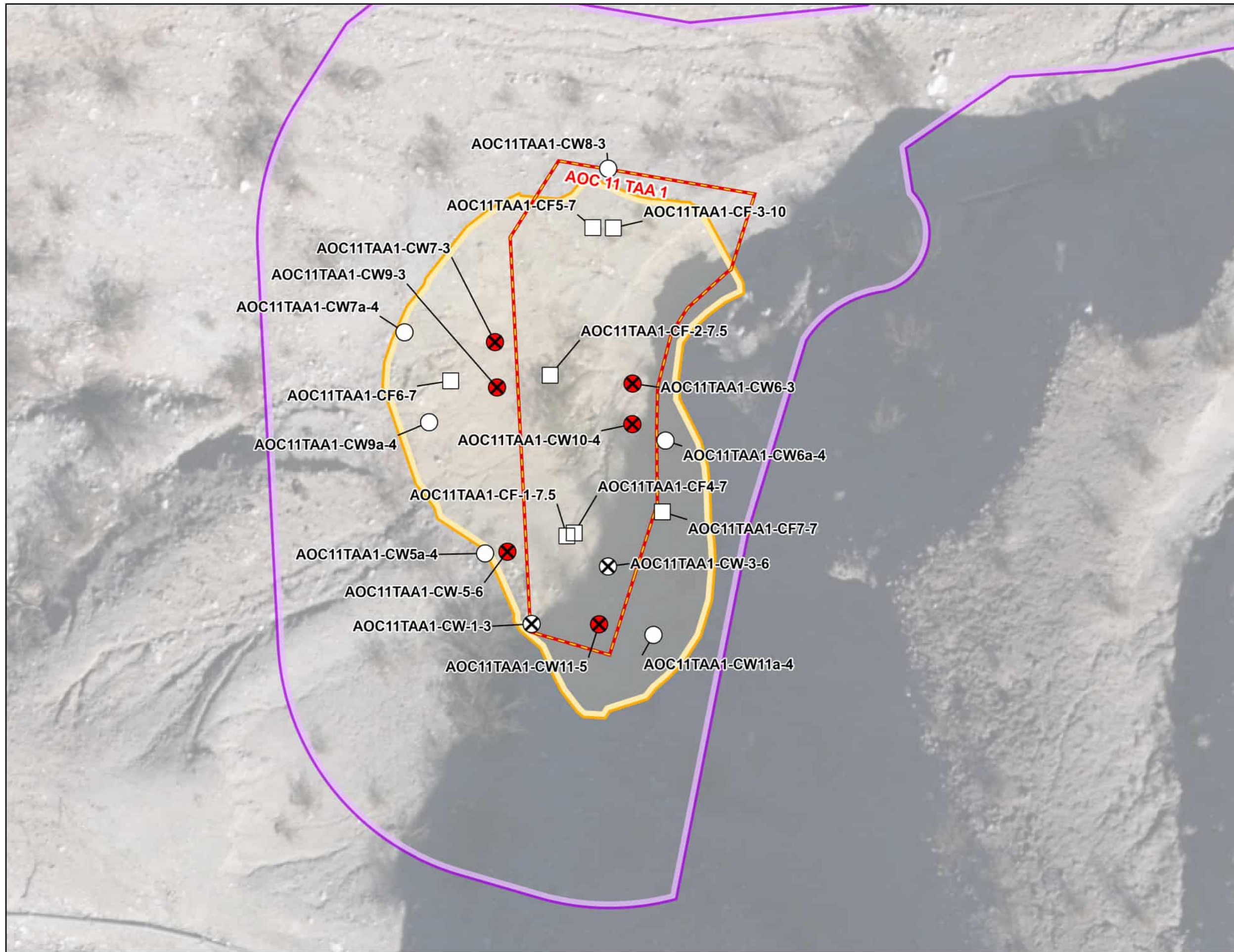
- Confirmation Floor Sample
- Confirmation Wall Sample
- Sample Exceeds Removal Action Goal
- ⊗ Sample Removed
- ⊕ Monitoring Well
- - - Electric Utility Line
- ▭ Target Action Area
- ▭ Soil NTCRA Excavation Extent
- ▭ Approved Work Area Boundary
- ▭ Topock Compressor Station Fence Line



Sample depth is indicated by the final numbers in the sample ID, for example AOC1TAA1-CF1-5 was collected at 5 feet bgs.

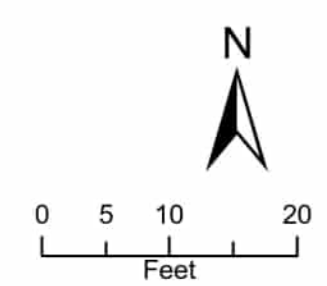
Aerial Photo Date: 2017
Credits: Esri Community Maps Contributors, California State Parks, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc., METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, USFWS, Esri, NASA, NGA, USGS, FEMA

FIGURE 3-11
AOC10 TAA4 Site Map
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station,
 Needles, California



LEGEND

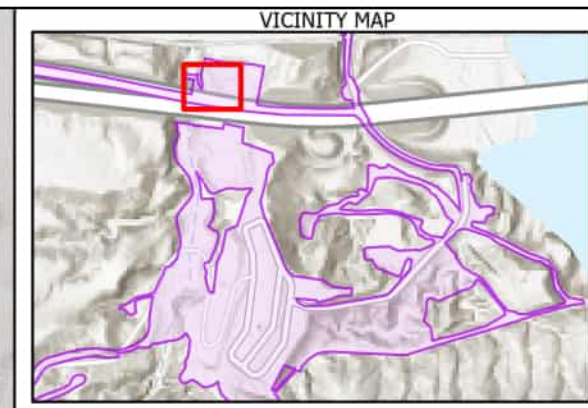
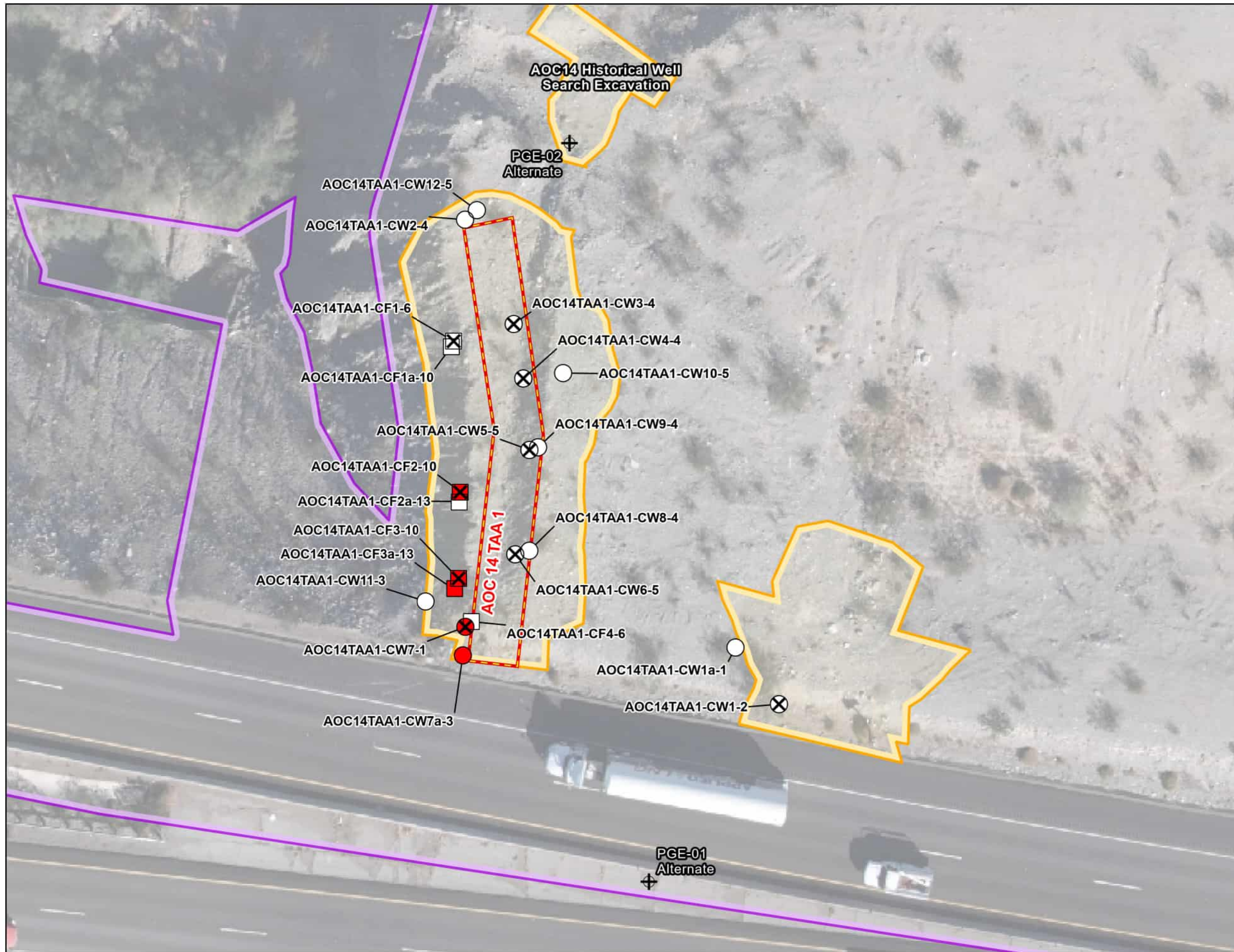
- Confirmation Floor Sample
- Confirmation Wall Sample
- Sample Exceeds Removal Action Goal
- ⊗ Sample Removed
- ▭ Target Action Area
- Soil NTCRA Excavation Extent
- Approved Work Area Boundary



Sample depth is indicated by the final numbers in the sample ID, for example AOC1TAA1-CF1-5 was collected at 5 feet bgs.

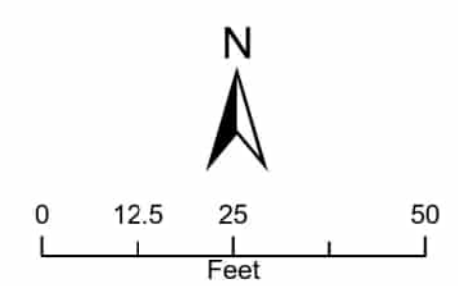
Aerial Photo Date: 2017
Credits: Esri Community Maps Contributors, California State Parks, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc., METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, USFWS, Esri, NASA, NGA, USGS, FEMA

FIGURE 3-12
AOC11 TAA1 Site Map
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station,
 Needles, California



LEGEND

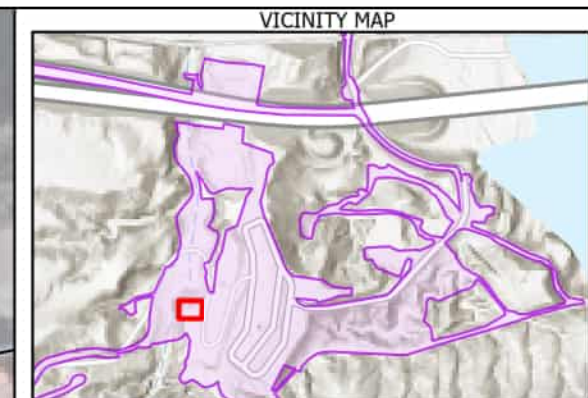
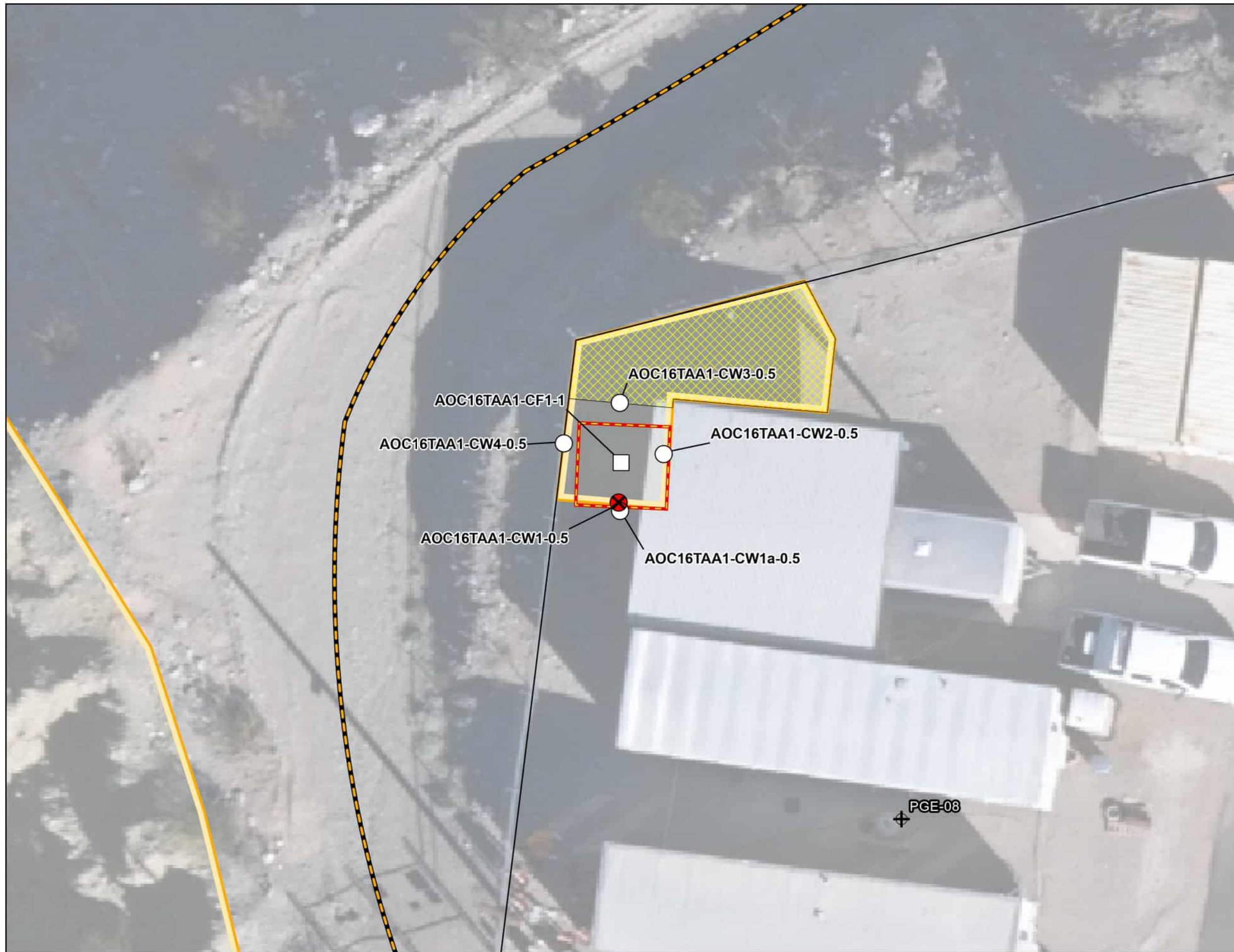
- Confirmation Floor Sample
- Confirmation Wall Sample
- Sample Exceeds Removal Action Goal
- ⊗ Sample Removed
- ⊕ Monitoring Well
- ▭ Target Action Area
- ▭ Soil NTCRA Excavation Extent
- ▭ Approved Work Area Boundary



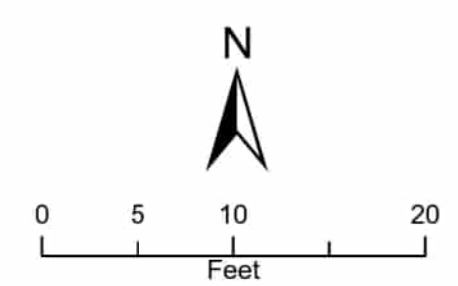
Sample depth is indicated by the final numbers in the sample ID, for example AOC1TAA1-CF1-5 was collected at 5 feet bgs.

Aerial Photo Date: 2017
Credits: Esri Community Maps Contributors, California State Parks, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc., METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, USFWS, Esri, NASA, NGA, USGS, FEMA

FIGURE 3-13
AOC14 TAA1 Site Map
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station,
 Needles, California



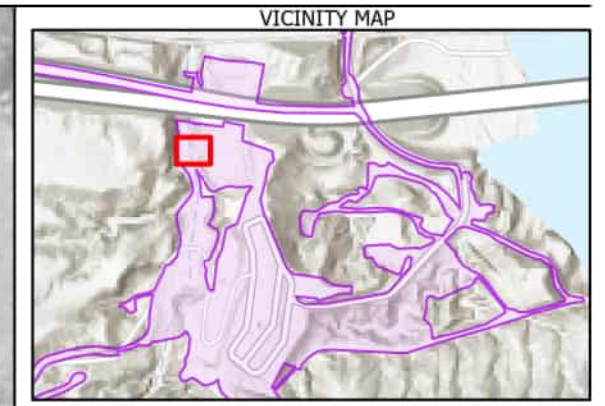
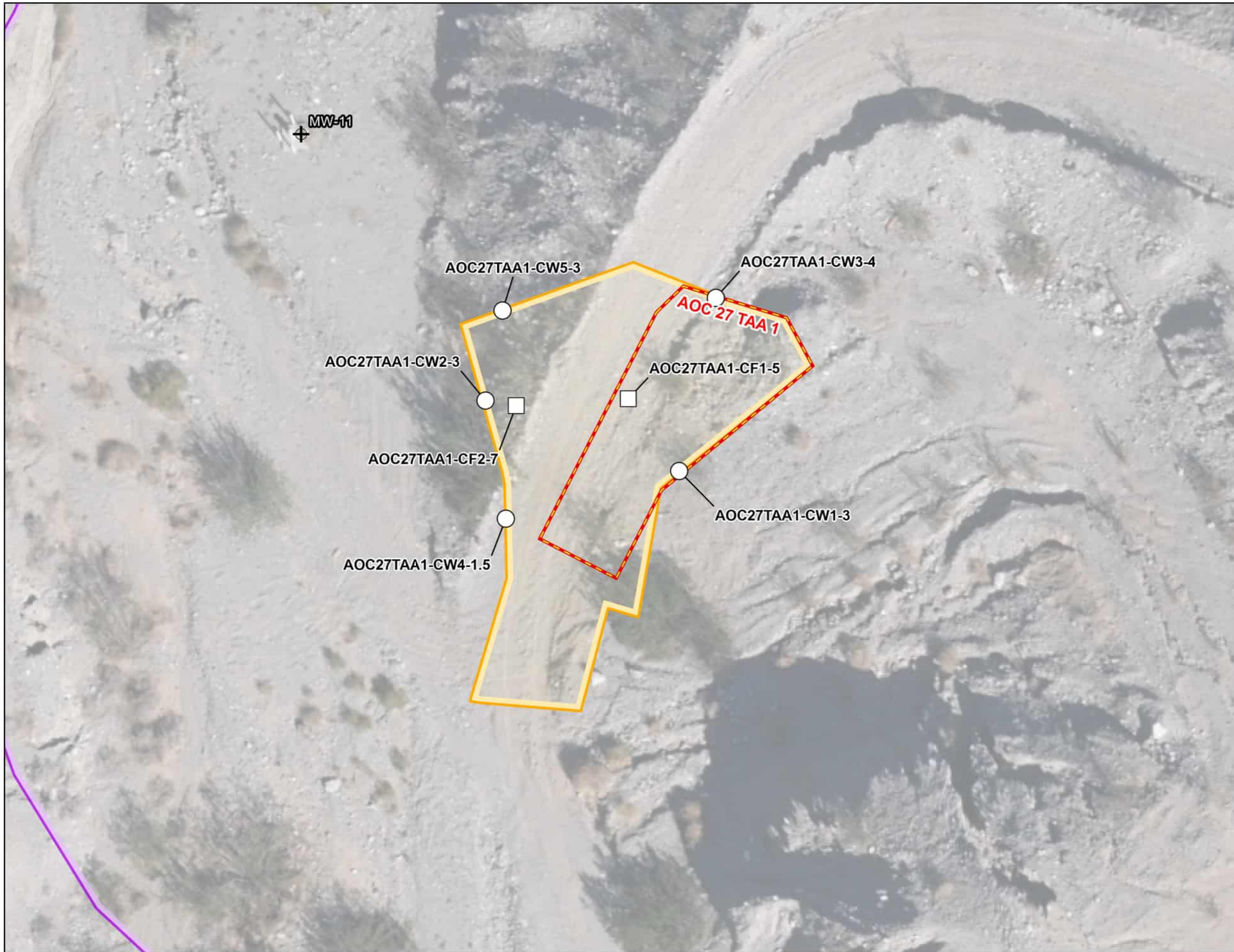
- LEGEND**
- Confirmation Floor Sample
 - Confirmation Wall Sample
 - Sample Exceeds Removal Action Goal
 - ✕ Sample Removed
 - ⊕ Monitoring Well
 - TCS Access
 - ▭ Target Action Area
 - ▭ Soil NTCRA Excavation Extent
 - ▭ Approved Work Area Boundary
 - ▭ Topock Compressor Station Fence Line
 - ▭ Soil NTCRA Surface Removal Only



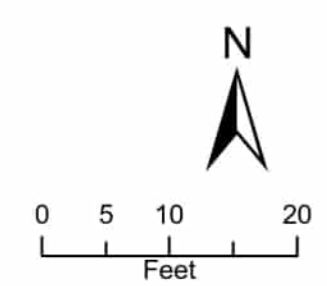
Sample depth is indicated by the final numbers in the sample ID, for example AOC1TAA1-CF1-5 was collected at 5 feet bgs.

Aerial Photo Date: 2017
Credits: Esri Community Maps Contributors, California State Parks, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc., METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, USFWS, Esri, NASA, NGA, USGS, FEMA

FIGURE 3-14
AOC16 TAA1 Site Map
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station,
 Needles, California



- LEGEND**
- Confirmation Floor Sample
 - Confirmation Wall Sample
 - ⊕ Monitoring Well
 - ▭ Target Action Area
 - ▭ Soil NTCRA Excavation Extent
 - ▭ Approved Work Area Boundary

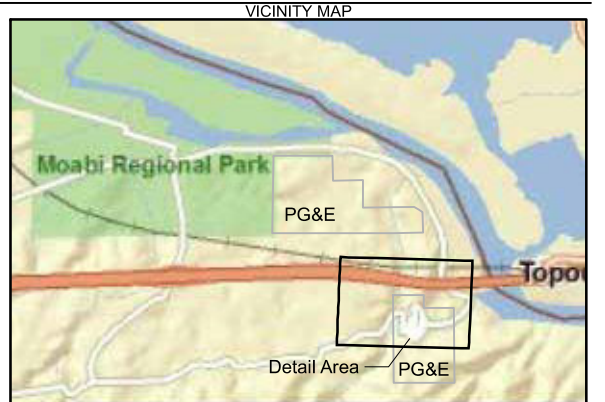
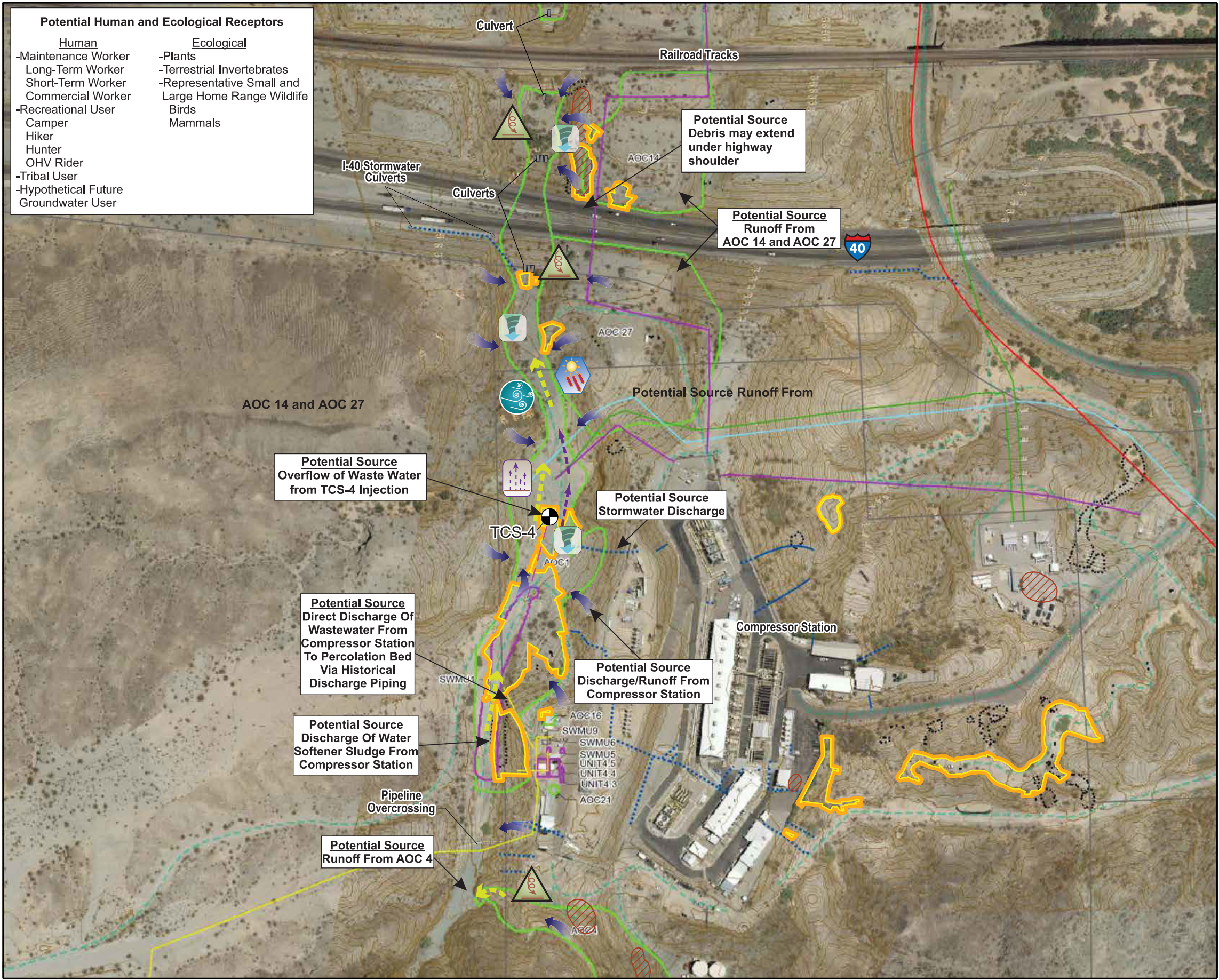


Sample depth is indicated by the final numbers in the sample ID, for example AOC1TAA1-CF1-5 was collected at 5 feet bgs.

Aerial Photo Date: 2017
Credits: Esri Community Maps Contributors, California State Parks, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc., METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, USFWS, Esri, NASA, NGA, USGS, FEMA

FIGURE 3-15
AOC27 TAA1 Site Map
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station,
 Needles, California

- Potential Human and Ecological Receptors**
- | Human | Ecological |
|---------------------------------------|---|
| -Maintenance Worker | -Plants |
| -Long-Term Worker | -Terrestrial Invertebrates |
| -Short-Term Worker | -Representative Small and Large Home Range Wildlife |
| -Commercial Worker | -Birds |
| -Recreational User | -Mammals |
| -Camper | |
| -Hiker | |
| -Hunter | |
| -OHV Rider | |
| -Tribal User | |
| -Hypothetical Future Groundwater User | |



LEGEND

- Soil NTCRA Excavation Extent
- Potential Burning Related Location
- Property Boundary
- Caltrans Right Of Way
- SWMU1 Boundary
- AOC Boundary
- Potential New Investigation Area
- White Powder Area
- SWMU Area
- Transwestern Pipeline
- Mojave Pipeline
- PG&E Pipeline
- SoCal Gas Pipeline
- Historical Discharge Piping
- Potential Locations of Stormwater Piping Below Ground
- Potential Location of Stormwater Piping Above Ground
- Estimated TCS-4 Pipeline Location

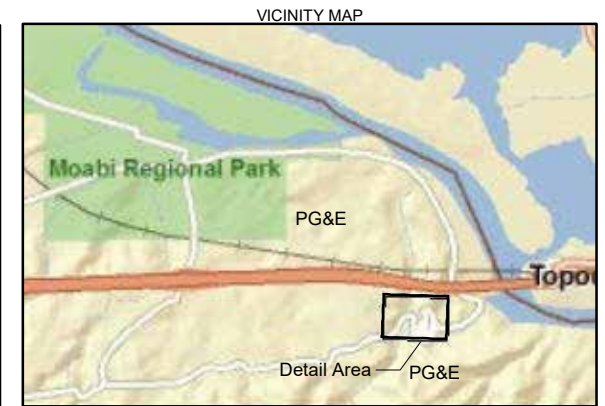
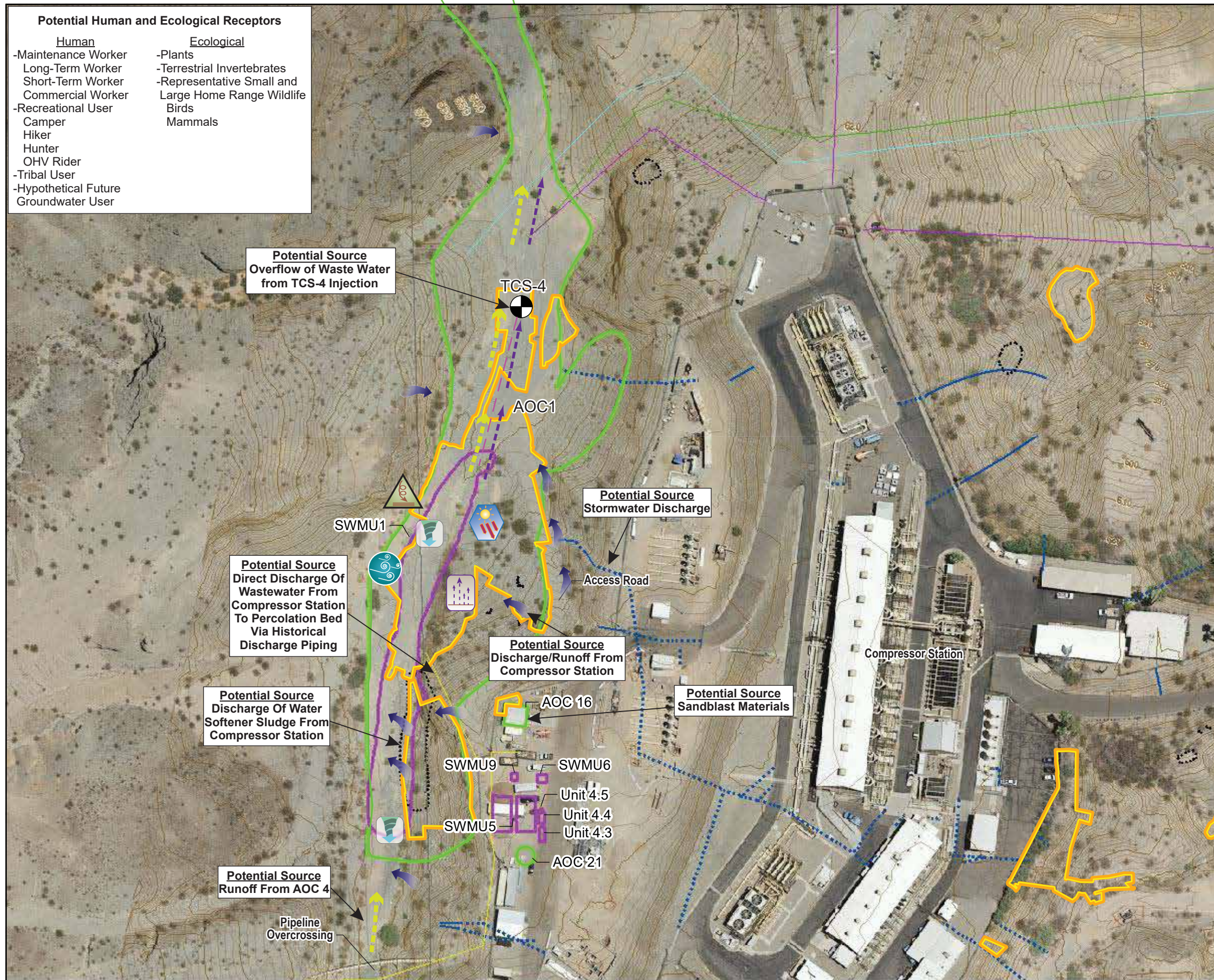
Potential Release Mechanisms

- ➔ Infrequent Surface Water Runoff
- ⬇ Infiltration (Site-wide)
- ⊙ Windblown Dispersion of Soil (Site-wide)
- ⬆ Volatilization (Site-wide)
- ⚡ Degradation by Heat/Light (Site-wide)
- ⚠ Surface Soil Scouring & Redeposition (Possible Throughout the Wash)
- ➔ Downstream Movement During Flow Events
- ➔ Historic Wastewater Flow

Note:
Topographic contours shown are in 2 foot intervals.

Figure 3-16
Conceptual Site Model Update
SWMU1/AOC1
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station,
 Needles, California

- Potential Human and Ecological Receptors**
- | Human | Ecological |
|---------------------------------------|---|
| -Maintenance Worker | -Plants |
| -Long-Term Worker | -Terrestrial Invertebrates |
| -Short-Term Worker | -Representative Small and Large Home Range Wildlife |
| -Commercial Worker | Birds |
| -Recreational User | Mammals |
| -Camper | |
| -Hiker | |
| -Hunter | |
| -OHV Rider | |
| -Tribal User | |
| -Hypothetical Future Groundwater User | |



- LEGEND**
- Soil NTCRA Excavation Extent
 - AOC Boundary
 - SWMU/Unit Boundary
 - White Powder Area
 - Property Boundary
 - Mojave Pipeline
 - PG&E Pipeline
 - SoCal Gas Pipeline
 - Transwestern Pipeline
 - Historical Discharge Piping
 - Approximate Location of Stormwater Piping Below Ground
 - Approximate Location of Stormwater Piping Above Ground
 - Estimated TCS-4 Pipeline Location

- Potential Release Mechanisms**
- Infrequent Surface Water Runoff
 - ⬇ Infiltration (Site-wide)
 - ⊙ Windblown Dispersion of Soil (Site-wide)
 - ⬆ Volatilization (Site-wide)
 - ⬆ Degradation by Heat/Light (Site-wide)
 - ⚠ Surface Soil Scouring & Redeposition (Possible Throughout the Wash)
 - ➡ Downstream Movement During Flow Events
 - ➡ Historic Wastewater Flow

Note:
Topographic contours shown are in 2 foot intervals.

N

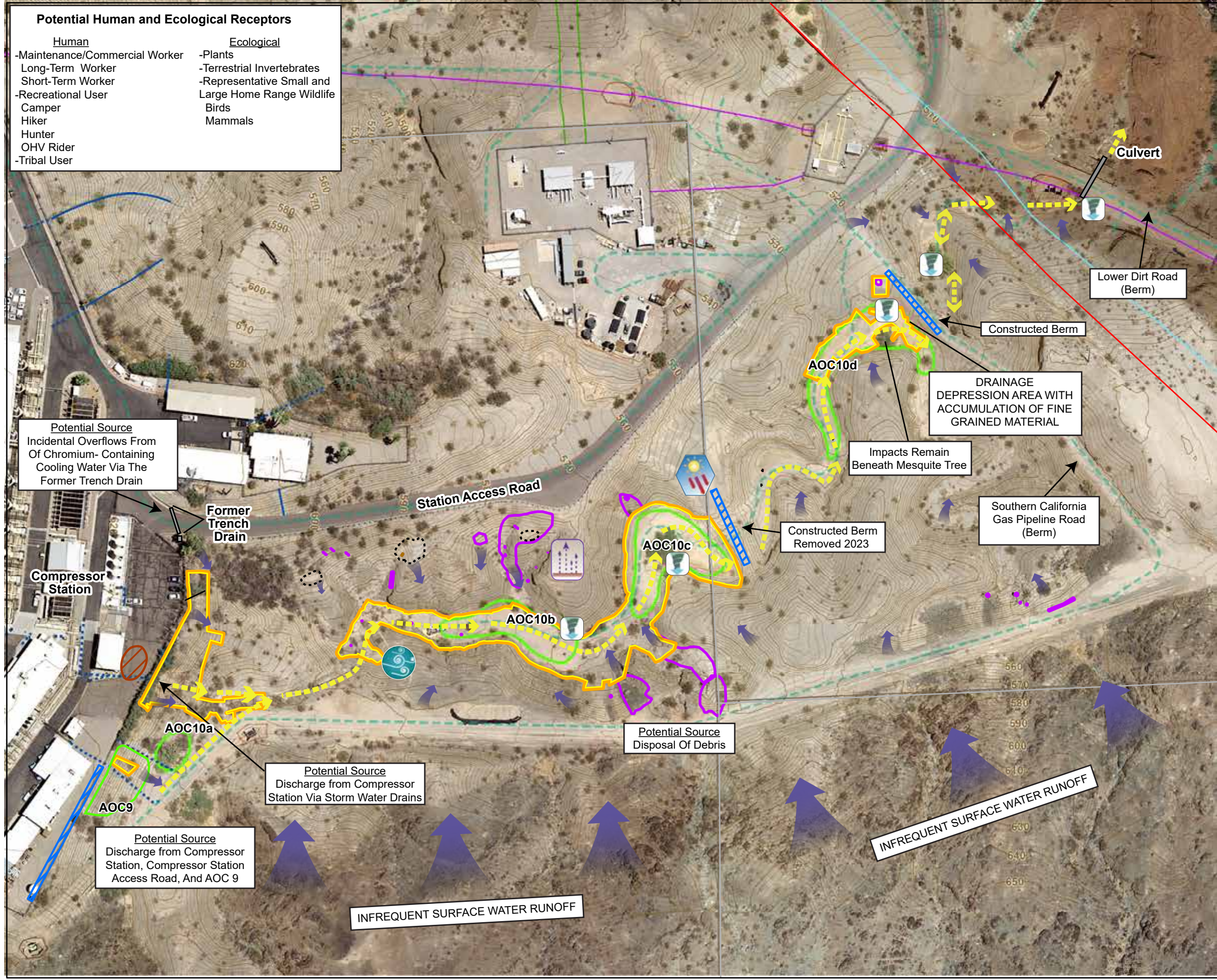
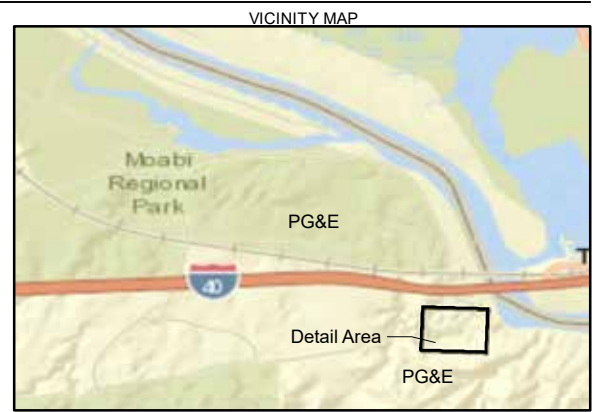
0 125 250
Feet

Figure 3-17
Conceptual Site Model Update
AOC1 South
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station,
 Needles, California



Potential Human and Ecological Receptors

Human	Ecological
-Maintenance/Commercial Worker	-Plants
-Long-Term Worker	-Terrestrial Invertebrates
-Short-Term Worker	-Representative Small and Large Home Range Wildlife
-Recreational User	-Birds
-Camper	-Mammals
-Hiker	
-Hunter	
-OHV Rider	
-Tribal User	



LEGEND

- Soil NTCRA Excavation Extent
- AOC Boundary
- Debris Features
- White Powder
- Stained Soil
- Potential Burning Related Location
- Access Routes
- Property Boundary
- Mojave Pipeline
- PG&E Pipeline
- SoCal Gas Pipeline
- Transwestern Pipeline
- Approximate Location of Stormwater Piping Below Ground
- Approximate Location of Stormwater Piping Above Ground
- Berm

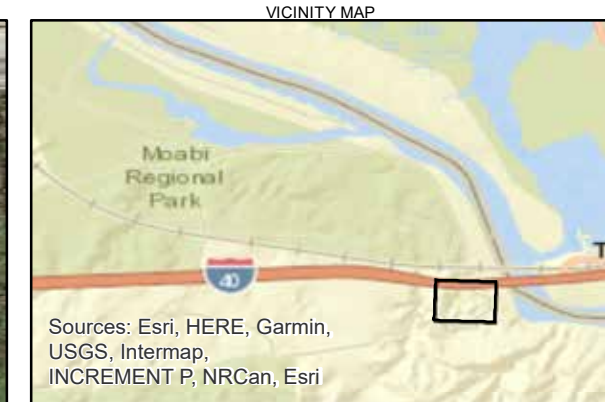
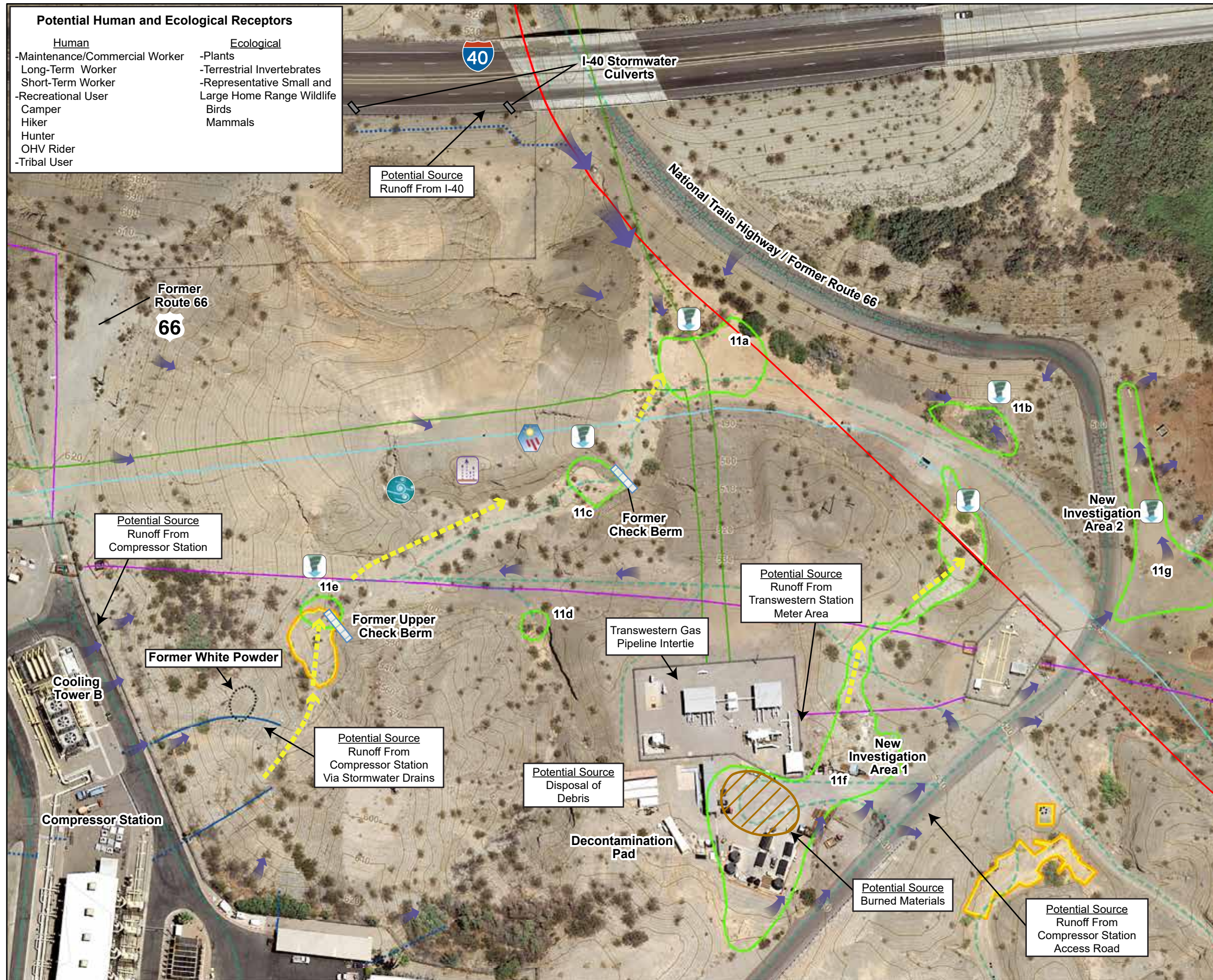
Potential Release Mechanisms

- Infrequent Surface Water Runoff
- Infiltration (Site-wide)
- Windblown Dispersion of Soil (Site-wide)
- Volatilization (Site-wide)
- Degradation by Heat/Light (Site-wide)
- Downstream Movement During Flow Events

Note:
1. Topographic contours shown are at 2 foot intervals

Figure 3-18
Conceptual Site Model Update
AOC-10
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station,
 Needles, California

Potential Human and Ecological Receptors	
Human	Ecological
-Maintenance/Commercial Worker	-Plants
-Long-Term Worker	-Terrestrial Invertebrates
-Short-Term Worker	-Representative Small and Large Home Range Wildlife
-Recreational User	Birds
Camper	Mammals
Hiker	
Hunter	
OHV Rider	
-Tribal User	

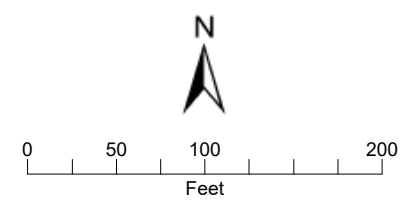


LEGEND

- Soil NTCRA Excavation Extent
- Fire Training Area
- Access Routes
- Area of Concern
- White Powder
- Mojave Pipeline
- PG&E Pipeline
- SoCal Gas Pipeline
- Transwestern Pipeline
- Approximate Location of Stormwater Piping Below Ground
- Approximate Location of Stormwater Piping Above Ground

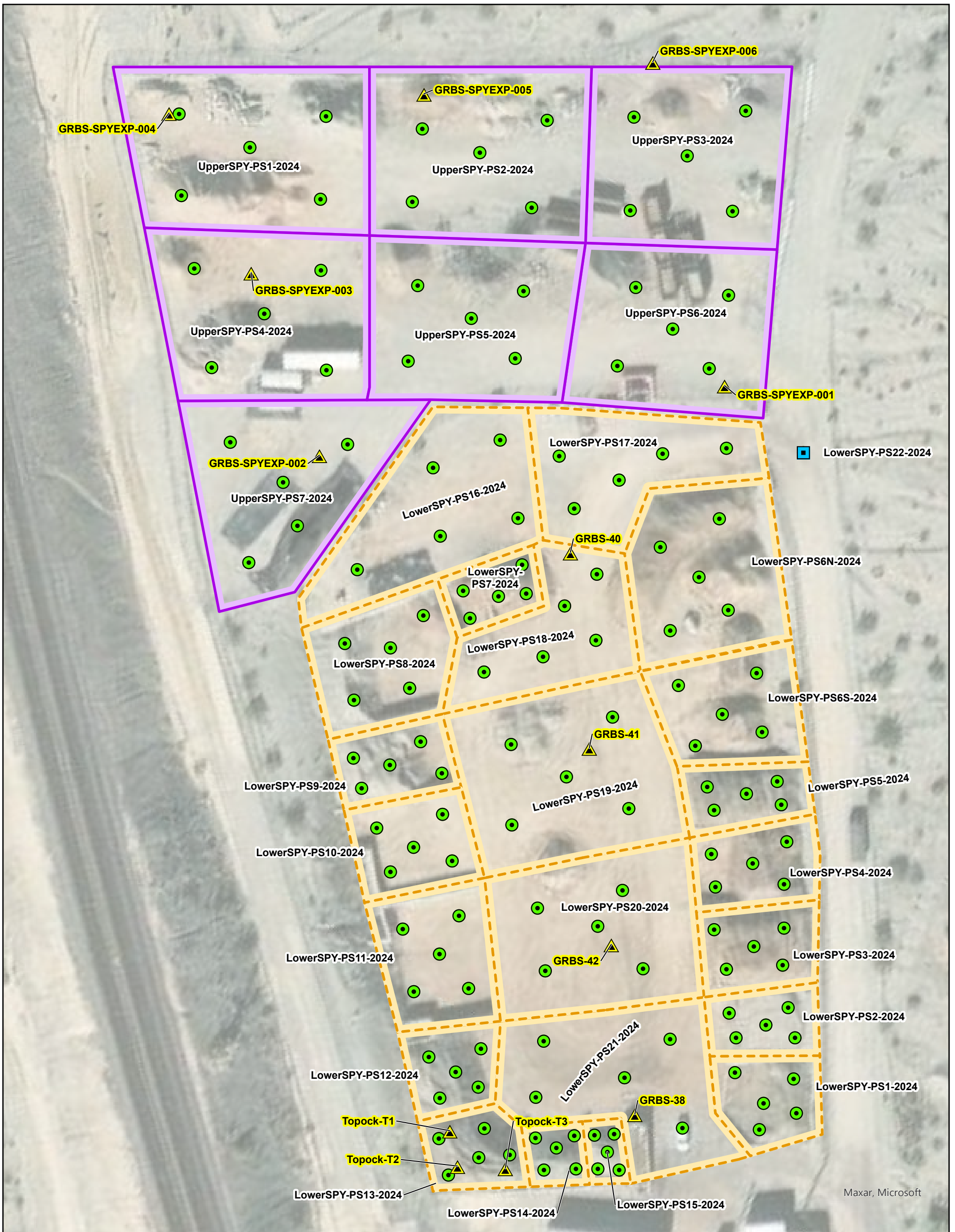
Potential Release Mechanisms

- Infrequent Surface Water Runoff
- Infiltration (Site-wide)
- Windblown Dispersion of Soil (Site-wide)
- Volatilization (Site-wide)
- Degradation by Heat/Light (Site-wide)
- Downstream Movement During Flow Events



Note:
1. Topographic contours shown are in 2 foot intervals.

Figure 3-19
Conceptual Site Model Update
AOC-11
Soil NTCRA Completion Report
PG&E Topock Compressor Station,
Needles, California



LEGEND

- Composite Soil Sample Location
- Discrete Sampling Location
- ▲ Baseline Soil Sample Location
- Upper SPY Sampling Unit
- Lower SPY Sampling Unit

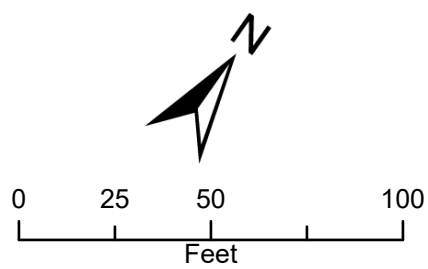
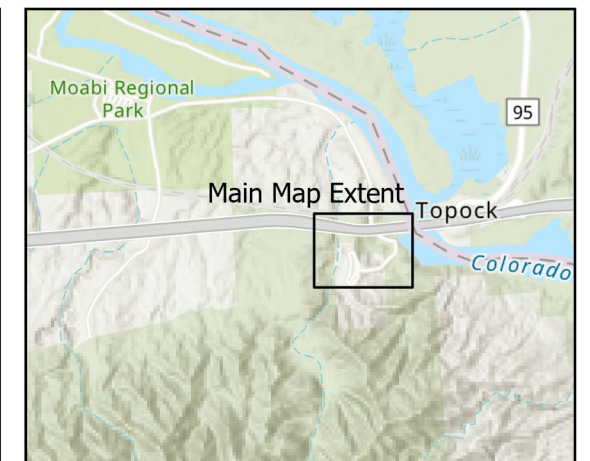


FIGURE 4-1
Post-Stockpile Confirmation
Soil Sample Locations
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station,
 Needles, California



- Target Action Area
- Topock Compressor Station
- Soil NTCRA Excavation Extent

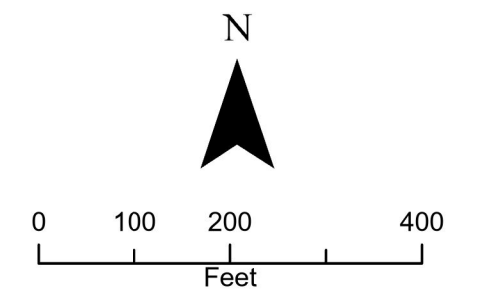


FIGURE 5-1
Soil NTCRA Excavation Map
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station,
 Needles, California

Appendix A
Field Change Requests and Variances

Appendix A. Variances and Field Change Request Approval Documentation

Soil NTCRA Completion Report

Topock Compressor Station, Needles, California

App #	Completion Report Text Section	Subject	Author/Sender	Documentation Title	Date
A-1	2.2.1	Transportation Plan Updates	Jacobs	Transportation Plan Contingency Plan - Groundwater Partners, Inc.	February 2023
A-1a			Jacobs	Appendix C, Transportation Plan for Soil NTCRA, Revised February 2023	February 2023
A-2	2.2.4	Work Plan Errata	PG&E	Errata - Soil NTCRA Work Plan	8/19/2022
A-2a			Veronica Dickerson/DOI	Topock_NTCRA_Workplan_Errata_Letter_19Aug2022 (1).pdf	10/25/2022
A-3	2.5.1	XRF and Dioxin/Furan Comparative Analysis	Jacobs	Comparative Analysis: XRF and Dioxin/Furan Quantitative Screening Analyses Soil NTCRA	December 2022
A-4	2.6	Field Change Request - Mechanical Separation Change	PG&E	Soil NTCRA Work Plan, Field Change Request - Mechanical Separation Change	8/30/2023
A-4a			Veronica Dickerson/DOI	PG&E Topock NTCRA - Field Change Request - Mechanical Separation Change	9/12/2023
A-5	2.6	Field Change Request - As-Needed Mechanical Separation	PG&E	Soil NTCRA Work Plan, Field Change Request - As-Needed Mechanical Separation	1/5/2024
A-5a			Veronica Dickerson/DOI	PG&E Topock NTCRA - Field Change As-Needed Mechanical Separation of BCW Excavated Material	1/26/2024
A-6	2.7.2	Field Change Request - Compaction Testing Requirements	PG&E	Soil NTCRA Work Plan, Backfill Compaction Testing Requirements Field Change	10/25/2023
A-6a			Veronica Dickerson/DOI	PG&E Topock NTCRA - Request for approval NTCRA Workplan Field Change Compaction Testing	11/6/2023
A-7	3.7.6/3.8.6	Field Change Request - AOC9 and AOC10 Slope Stabilization Plan	John Glass/PG&E	Topock NTCRA: AOC9-1 and AOC10-1 Slope Stabilization Plan	10/3/2023
A-7a			Veronica Dickerson/DOI	PG&E Topock Soil NTCRA - Request DOI's Approval AOC9-1 Backfill Request	10/10/2023
A-7b			Veronica Dickerson/DOI	PG&E Topock Soil NTCRA - Request DOI's Approval AOC10-1 Backfill Request	10/10/2023
A-8	3.9.6	East Ravine Strategic Backfill	Chistina Hong/Jacobs	PG&E Topock Soil NTCRA - Request DOI's Approval for Strategic Backfill Approach within East Ravine	1/20/2023
A-8a			John Glass/PG&E	PG&E Topock Soil NTCRA - Revised Request DOI's Approval for Strategic Backfill Approach within East Ravine	2/3/2023
A-8b			Veronica Dickerson/DOI	PG&E Topock Soil NTCRA - Revised Request DOI's Approval for Strategic Backfill Approach within East Ravine	2/3/2023
A-9	4.1.1	Post-Stockpile Confirmation Soil Sampling	John Glass/PG&E	PG&E Topock NTCRA - Post NTCRA SPY sampling plan	2/8/2024
A-9a			Veronica Dickerson/DOI	PG&E Topock NTCRA - Post NTCRA SPY sampling plan	2/9/2024
A-9b			John Glass/PG&E	PG&E Topock NTCRA - Post NTCRA SPY Sampling Plan Proposed Revision	2/27/2024
A-9c			Veronica Dickerson/DOI	PG&E Topock NTCRA - Post NTCRA SPY Sampling Plan Proposed Revision	2/29/2024
A-9d			John Glass/PG&E	PG&E NTCRA - Addendum to Post-Stockpile Confirmation Soil Sampling Work Plan	4/1/2024
A-9e			Veronica Dickerson/DOI	PG&E NTCRA - Addendum to Post-Stockpile Confirmation Soil Sampling Work Plan	4/2/2024

= number

AOC = area of concern

BCW = Bat Cave Wash

DOI = U.S. Department of Interior

NTCRA = non-time-critical removal action

PG&E = Pacific Gas and Electric

SPY = Soil Processing Yard

TCS = Topock Compressor Station

XRF = x-ray florescence

155 Grand Avenue, Suite 800
Oakland, CA 94612
United States
T +1.510.251.2888
F +1.510.622.9000
www.jacobs.com

Subject: **Transportation Plan Contingency Plan – Groundwater Partners, Inc.
Soil Non-Time Critical Removal Action (NTCRA)
PG&E Topock Compressor Station, Needles, California**

Attention: Pacific Gas and Electric (PG&E) and the Department of Interior (DOI)

From: Jacobs

Date: February 2023

In October 2021, The U.S. Department of the Interior (DOI) issued an Action Memorandum entitled *“Request for a Non-Time-Critical Soil Removal Action at Areas of Concern and Solid Waste Management Units, Pacific Gas and Electric Topock Compressor Station”* (DOI 2021) directing Pacific Gas and Electric Company (PG&E) to implement a Soil Non-Time-Critical Removal Action (NTCRA) at the Topock Compressor Station (TCS) in Needles, California.

In June 2022, the Final Soil NTCRA Work Plan (Jacobs 2022) was approved by DOI and includes, among other supplementary plans, a Transportation Plan (Appendix C). The Transportation Plan requires each material transporter to submit a written contingency plan for PG&E review and approval. The following contingency plan has been prepared by Jacobs and Groundwater Partners, Inc. (GWP) for their role in the transportation of solid waste from the Soil NTCRA project site in Needles, California to the Republic Services La Paz landfill in Parker, Arizona. The plan presented herein will be made part of the Transportation Plan.

Emergency Situations

GWP will notify local emergency services (Dial 911) in the event of an accident, waste spill, waste leak, fire, explosion, etc. during transportation of waste from the site to the landfill. The waste manifest will be presented to emergency services, as needed. PG&E will be notified as soon as it is safe to do so. Steps to resolve the emergency will be determined upon assessment of the situation.

Changes in Volume and Condition of Waste

GWP will haul solid wastes in covered DOT approved dump trucks or roll-off bins and ensure weight limits are not exceeded. GWP will use their experience and previously documented full truck weights to load waste within permitted limits. When changing to a new material type (clay vs gravel) or material condition (dry vs wet), loaded trucks will be weighed at the SPY prior to transport to the landfill to confirm weight limits are not exceeded. Overweight haul trucks will be emptied to meet permitted limits.

Changes in Waste Characteristics and Condition

GWP is only authorized to haul nonhazardous waste. GWP will not haul RCRA hazardous waste or non-RCRA hazardous waste (aka CalHaz). Waste characterization and profile will be conducted by Jacobs and PG&E. PG&E will be responsible for signing appropriate manifests prior to GWP transporting wastes from the site.

Inclement Weather

GWP will monitor weather prior to leaving the site to avoid dangerous conditions or routes with the potential for flooding or other closures. On January 20, 2023, a Field Change was submitted to PG&E to include the addition of an alternate route to the Republic Service La Paz landfill in Parker, Arizona. The

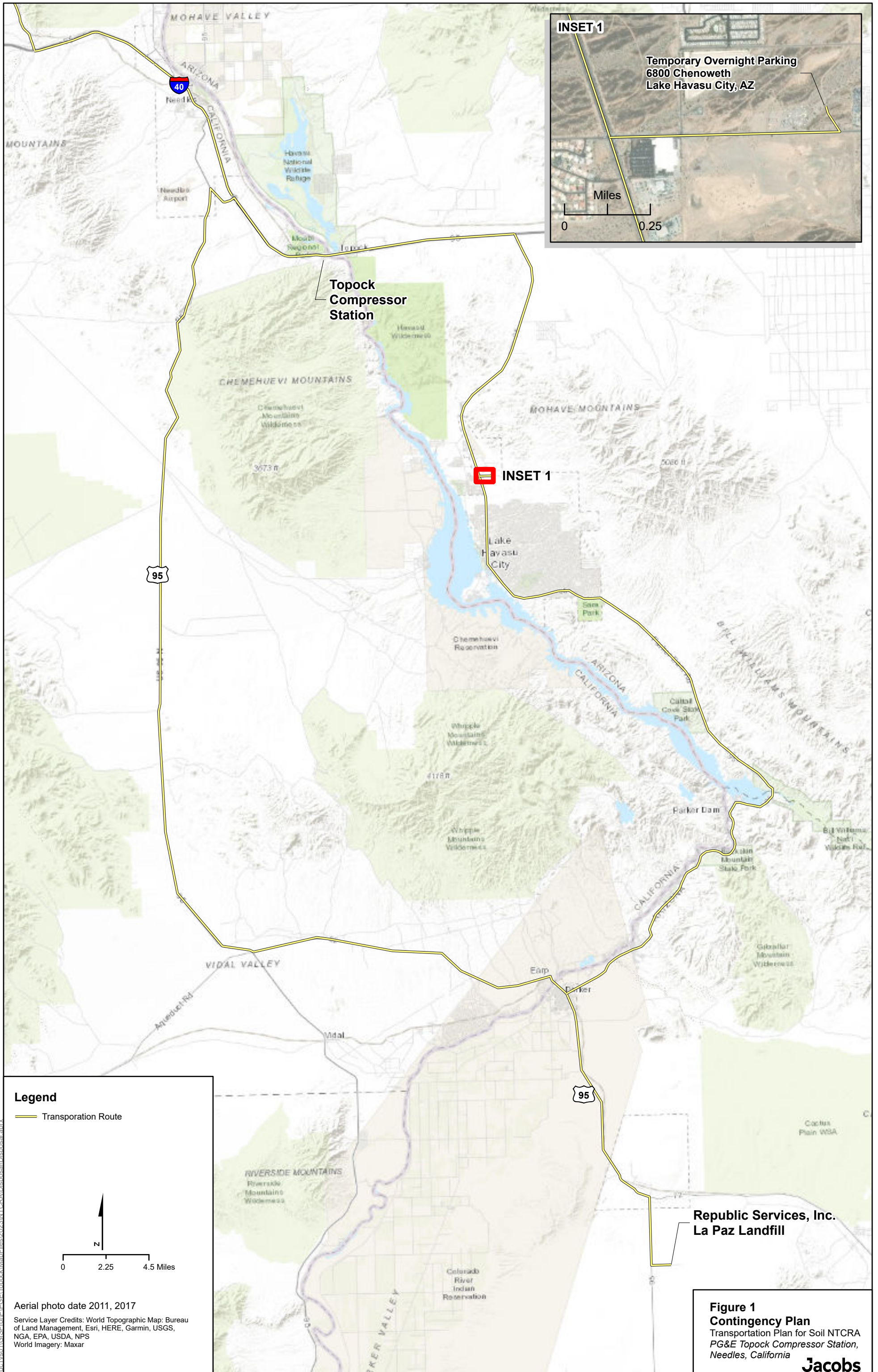
alternative route leaves the project site east on I-40 then travels south on AZ-95 through Lake Havasu City, Arizona (See revised Figure 2). This alternate route is roughly the same travel distance but provides haul truck drivers with the option to select the best route based on weather and road conditions and traffic delays.

Additionally, the alternate route allows for temporary overnight parking of GWP haul trucks at a secured facility in Lake Havasu City, Arizona (See Contingency Plan Figure 1). Overnight parking allows for drivers to deliver waste to La Paz landfill late in the afternoon or early in the morning. During overnight parking, the waste manifest will stay in the locked haul truck cab. The field change revised Figure 2 and added the following text to Section 4.2 (Offsite Routes) of the Transportation Plan, "*Loaded or empty haul trucks may temporarily park overnight at the secured facility on 6800 Chenoweth in Lake Havasu City, Arizona prior to or after delivery to the La Paz landfill in Parker, Arizona.*"

References

Jacobs Engineering Group Inc. (Jacobs). 2022. *Work Plan for Soil Non-Time-Critical Removal Action, PG&E Topock Compressor Station, Needles, California*. June.

U.S. Department of the Interior (DOI). 2021. *Request for a Non-Time-Critical Soil Removal Action at Areas of Concern and Solid Waste Management Units, Pacific Gas and Electric Topock Compressor Station*. October.



INSET 1

Temporary Overnight Parking
6800 Chenoweth
Lake Havasu City, AZ

Miles

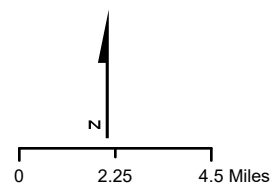
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**Topock
Compressor
Station**

INSET 1

Legend

— Transportation Route



Aerial photo date 2011, 2017
Service Layer Credits: World Topographic Map: Bureau of Land Management, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS
World Imagery: Maxar

**Republic Services, Inc.
La Paz Landfill**

**Figure 1
Contingency Plan**
Transportation Plan for Soil NTCRA
PG&E Topock Compressor Station,
Needles, California

Jacobs



PG&E Topock Compressor Station, Needles, California

Appendix C Transportation Plan for Soil Non-Time-Critical Removal Action

June 2022

Revised February 2023

Pacific Gas and Electric Company



PG&E Topock Compressor Station, Needles, California

Project No: D31084AS.A.CS.EV.TM.02
Document Title: Appendix C: Transportation Plan for Soil Non-Time-Critical Removal Action
Document No.: FES0726211631BAO
Revision: Final
Date: June 2022
Client Name: Pacific Gas and Electric Company
Project Manager: Keith Sheets
Author: Mike Reynolds
File Name: Topock_NTCRA_AppC_Transportation Plan_Final_06152022

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- 1 Soil NTCRA Transportation Routes
- 2 Soil NTCRA Disposal Facility Transportation Route (Revised)

Acronyms and Abbreviations

Acronyms	Definitions
AOC	Area of Concern
CCR	California Code of Regulations
COPC	chemical of potential concern
COPEC	chemical of potential ecological concern
DOI	U.S. Department of the Interior
DTSC	California Department of Toxic Substances Control
EPA	U.S. Environmental Protection Agency
H&SC	Health and Safety Code
mg/kg	milligrams per kilogram
NTCRA	Non-Time-Critical Removal Action
PG&E	Pacific Gas and Electric Company
RCRA	Resource Conservation and Recovery Act
SWMU	Solid Waste Management Unit
TCS	Topock Compressor Station

1. Introduction

The United States Department of the Interior (DOI) issued an Action Memorandum entitled “Request for a Non-Time-Critical Soil Removal Action at Areas of Concern and Solid Waste Management Units, Pacific Gas and Electric Topock Compressor Station” (DOI 2021). DOI’s Action Memorandum directed Pacific Gas and Electric Company (PG&E) to implement a Soil Non-Time-Critical Removal Action (NTCRA) at the Topock Compressor Station (TCS) in Needles, California. The Soil NTCRA, which is being conducted in accordance with the Comprehensive Environmental Response, Compensation and Liability Act, is intended to address the release or substantial threat of a release of hazardous substances from the TCS to the Havasu National Wildlife Refuge. Previous environmental investigations determined that there are specific areas outside of the TCS where concentrations of constituents of potential concern to humans (COPCs) and constituents of potential ecological concern (COPECs) significantly exceed background values or ecological and human health screening levels. These areas are located within or adjacent to active desert washes subject to potential scouring during rain events that could move contamination toward the Colorado River or spread the contamination footprint over a larger area.

The scope of the Soil NTCRA is limited to the removal of contaminated soil and debris including white powder and black sandy material on federal land or in locations where constituents have the potential to migrate to federal land. The removal action will be conducted in the following areas identified in the Action Memorandum: Solid Waste Management Unit (SWMU) 1, Area of Concern (AOC) 1, AOC 9, AOC 10, AOC 11, AOC 14, AOC 16, and AOC 27.

COPCs and COPECs for the Soil NTCRA include hexavalent chromium, total chromium, copper, lead, mercury, molybdenum, zinc, and dioxin/furans.

All wastes generated during the Soil NTCRA will be transported by a qualified (licensed/registered and insured) waste hauler in covered trucks under manifests or proper shipping documents to permitted disposal facilities. This Transportation Plan is intended to provide the protocol and procedures for the preparation, loading, transportation, and documentation of all transportation-related activities during the removal action. The plan covers the following activities:

- a. Transportation of hazardous and non-hazardous wastes from the project site in accordance with all applicable federal, state, and local laws, regulations, and ordinances.
- b. Compliance with all applicable regulations related to transportation of waste materials to protect public health and safety.
- c. Compliance with PG&E requirements for spill prevention and traffic safety.
- d. Transportation of all waste materials in a manner that prevents the release of any waste to areas outside of the approved disposal facilities.
- e. Disposal of waste materials after profiling and receipt of written acceptance from the permitted disposal facilities.
- f. Identification of staging areas and site access routes that will minimize disruption to station operations and prevent spills.
- g. Implementation of a site-specific health and safety plan as outlined in Appendix B of the Soil NTCRA Work Plan (Jacobs 2021) and compliance with all approved project procedures to prevent or minimize the occurrence of accidents, spills, or worker exposure to hazardous materials.

2. Waste Characterization and Quantity

2.1 Waste Profile

The site-specific COPCs and COPECs include hexavalent chromium, total chromium, copper, lead, mercury, molybdenum, zinc, and dioxin/furans. Waste characterization procedures and required laboratory analyses are outlined in the Soil NTCRA Work Plan. Approval or acceptance by the disposal facilities will be obtained before the removal action begins.

If the waste material is designated as a hazardous waste, the Contractor will use a new U.S. Environmental Protection Agency (EPA) generator ID number, different from PG&E TCS or IM3 EPA generator ID numbers, for waste manifesting. If the waste material is designated as a non-hazardous waste, the Contractor will use EPA generator ID number CAR000181560, or directed otherwise by PG&E, for waste manifesting.

2.1.1 RCRA Hazardous Waste

Resource Conservation and Recovery Act (RCRA) hazardous waste is regulated under both the (federal) RCRA and the California Health and Safety Code (H&SC). The RCRA regulatory levels for D-wastes, using the Toxicity Characteristic Leaching Procedure, are listed under the California Code of Regulations, Title 22 Section 66261.24(a)(1) (22 CCR 66261.24(a)(1)).

2.1.2 Non-RCRA Hazardous Waste

Non-RCRA Hazardous Waste is regulated only under the H&SC and Title 22 of the CCR. The Total Threshold Limit Concentration (TTLC) and Soluble Threshold Limit Concentration (STLC) values for the chemicals of concern are listed under 22 CCR Section 66261.24(a) (2).

2.1.3 Non-Hazardous Waste

H&SC Section 25157.8 prohibits the disposal of any waste containing total lead in excess of 350 milligrams per kilogram (mg/kg), copper in excess of 2,500 mg/kg, or nickel in excess of 2,000 mg/kg to land other than to a Class 1 disposal facility in California. For example, waste soils containing lead at 500 mg/kg may not be hazardous waste based on STLC results; however, these waste soils must be disposed of at a Class 1 disposal facility.

2.1.4 Asbestos Containing Materials

The DTSC classifies asbestos-containing material as hazardous waste if it is “friable” and contains one percent (1.0%) or more asbestos. A friable waste is one that can be reduced to a powder or dust under hand pressure when dry. This classification standard is defined in 22 CCR 66261.24. Because the EPA does not regulate asbestos-containing material as hazardous waste under RCRA, it is considered to be a “non-RCRA,” or “California-only” hazardous waste. DTSC considers non-friable bulk asbestos-containing waste to be nonhazardous regardless of its asbestos content; as such, it is not subject to regulation under Title 22, Division 4.5, of the CCR. Any excavated soil designated for offsite disposal that contains greater than 1% by weight of asbestos will be disposed of at a disposal facility permitted to accept such waste.

3. Requirements for Transporters

All transporters of waste materials will comply with the following procedures and requirements during the Soil NTCRA.

3.1 Shipping Documents

Waste will be managed either as hazardous or non-hazardous depending on the waste profile, and transported using the appropriate shipping documents (manifests, bill of lading or invoice) by a licensed waste hauler. At a minimum, the shipping document will include the following information:

- Name and Address of Waste Generator - Name and Address of Waste Transporter
- Name and Address of Disposal Facility
- Description of the Waste
- Quantity of Waste Shipped

The Contractor's designated personnel on site will maintain a copy of all shipping document for each truckload of excavated soil, waste, or fill material until completion of the removal action.

3.2 License and Insurance

The selected haulers or transporters shall be licensed and insured in both the shipping and receiving states, and in any states through which the waste will be transported. Hazardous wastes must be shipped by a registered hazardous waste hauler. The Contractor will verify the status of registration and insurance policy of the selected transporters.

3.3 Contingency Plan

Each transporter is required to have a written contingency plan for PG&E review and approval to address the following conditions:

- a. Emergency situations (vehicle breakdown, accident, waste spill, waste leak, fire, explosion, etc.) during transportation of waste from the site to the destined disposal facility;
- b. Change in the volume and condition of the waste;
- c. Change in waste characteristics and condition; or
- d. Inclement weather.

The contingency plan shall be prepared in accordance with DTSC's guidance for transportation plans for site remediation (DTSC, 1994). After the transporter is selected, a copy of its contingency plan will be made a part of this Transportation Plan.

February 2023 Update – A Contingency Plan for Groundwater Partners, Inc. was submitted to PG&E.

4. Traffic Control

Traffic control procedures and requirements to be implemented during the Soil NTCRA include the following:

4.1 Traffic Control

Speed Limit: While travel on unpaved roads, all vehicles are required to maintain slow speeds, e.g., less than 10 miles per hour for safety purposes and for dust control. While on paved roads or freeways, all transporters will follow the posted speed limits and apply defensive driving techniques (over traffic or road conditions) for traffic safety.

Site Access Control: All trucks shall be well maintained; **leaks and spills from vehicles are not acceptable**. Trucks with excess grease or debris will be rejected and not allowed access to the Site. The Contractor's designated personnel will be available at the staging area just off I-40 and Park Moabi road to inspect and approve vehicles, then assist the truck drivers to safely enter and depart the Site.

Truck Staging Area: Empty waste bins will be inspected by the Contractor to confirm cleanliness prior to being off-loaded at the designated locations, as directed by the flagger. Truck loading will be coordinated so as to avoid staging offsite and long wait times for trucks; idling will be minimized to avoid unnecessary exhaust fumes.

I-40 Lane Closure: Removal actions at AOC 14 Target Action Area #1 will require closure of the shoulder and a westbound lane of I-40. A lane closure plan with Caltrans will be required during permitting of the Soil NTCRA.

4.2 Transportation Routes

TCS Routes: PG&E Remediation Site Operations Manager will coordinate access to and travel within the TCS with TCS. If needed, general highway trucks will enter and exit the TCS through the main gate along National Trails Highway. Prior to entering the site, trucks will be visually inspected at the staging area (off I-40 and Park Moabi Road) for fuel or oil leaks. Figure 1 illustrates the proposed traffic routes near the TCS and throughout the Work Area. Appropriate signage will be developed to control traffic flow.

Work Area Routes: Transportation within the Work Area will be along approved routes shown in Figure 1. The Work Area includes both on and off highway roads. Travel on public roadways will follow all applicable traffic laws. Appropriate signage will be placed in high traffic areas on private property.

Offsite Routes: Transportation of wastes from the Work Area to the approved disposal facility in Beatty Nevada and Parker Arizona will follow the designated route shown in Figure 2 (**Revised to include travel through Lake Havasu City, Arizona**). Road conditions and access restrictions will be determined prior to each shipment. **Loaded or empty haul trucks may temporarily park overnight at the secured facility on 6800 Chenoweth in Lake Havasu City, Arizona prior to or after delivery to the La Paz landfill in Parker, Arizona.**

4.3 Dust Control

Waste for offsite disposal will be transported in covered end-dump trailers/trucks, drums, or roll-off bins to reduce dust during transport. All waste hauler vehicles will be decontaminated to remove soil and debris from the exterior prior to leaving the work area.

4.4 Truck Inspection and Cleaning

After loading the trucks, the Contractor is responsible for ensuring trucks are clean prior to leaving the work zone. A cleanout station (for example, rumble track, ground liner, dry decontamination brushes, elevated work platform, etc.), will be maintained by the Contractor for inspection and truck cleaning prior to transport to the landfill. If wet decontamination is warranted, a secondary containment pad will be used to contain wash water. Best management practices in accordance with the BMP Plan will be implemented to prevent runoff and discharge to land.

5. Landfill Disposal Facilities

Based on the results of waste profiling and classification, waste material will be transported under waste manifests or proper shipping documents to a permitted offsite disposal facility. Once the disposal facility has provided written acceptance, copies of waste profile reports will be provided to DOI. Compliance with the land disposal restrictions, as necessary, will be documented and provided to DOI after receipt of written acceptance from the disposal facility.

All hazardous wastes will be properly managed, manifested, and transported by a DOT registered and California registered hazardous waste hauler to a proper waste management facility.

5.1 RCRA Hazardous Waste Facilities (Class I)

All RCRA hazardous wastes will be disposed of in a Class 1 hazardous waste disposal facility permitted to accept such wastes. RCRA hazardous waste generated during the Soil NTCRA will be transported to the following facility for disposal:

US Ecology Inc
Highway 95, 11 miles South of Beatty
Beatty, Nevada 89003
Phone: 1.800.239.3940

5.2 Non-RCRA Hazardous Waste Facilities (Class I or II)

A non-RCRA hazardous waste is a California-only hazardous waste. When an asbestos-containing waste is regulated as non-RCRA hazardous waste, it may be disposed of at a California Class 2 landfill or an out-of-state Class 3 landfill (permitted to accept such wastes). All other non-RCRA hazardous wastes will be disposed of at a California Class 1 land disposal facility or an out-of-state Class 3 landfill permitted to accept such wastes. Non-RCRA hazardous waste generated during the Soil NTCRA will be transported to one or both of the following facilities for disposal:

Republic Services, Inc.
26999 AZ-95
Parker, AZ 85344
(928) 669-8886

US Ecology Inc.
Highway 95, 11 miles South of Beatty
Beatty, Nevada 89003
Phone: 1.800.239.3940

5.3 Nonhazardous Waste Facilities (Class I or II)

Waste classified as non-hazardous will be transported to a Subtitle D landfill for disposal. Nonhazardous waste generated during the Soil NTCRA will be transported to one or both of the following facilities for disposal:

Republic Services, Inc.
26999 AZ-95
Parker, AZ 85344
(928) 669-8886

US Ecology Inc.
Highway 95, 11 miles South of Beatty
Beatty, Nevada 89003
Phone: 1.800.239.3940

5.4 Land Disposal Restriction

Land Disposal Restrictions ensure that toxic constituents present in hazardous waste are properly treated before hazardous waste is disposed of to land. Some wastes may require mandatory technology-based treatment before disposal. Agreements between PG&E and the approved facility or landfill will be made prior to transporting the waste to the facility.

6. Documentation

The Contractor will be responsible for maintaining proper documentation of all waste removal and transportation and site restoration activities.

6.1 Photographs

Photographic documentation representative of activities with particular attention to compliance with this Transportation Plan and the NTCRA Work Plan will be collected by the contractor throughout the course of the project.

6.2 Field Log Book

The Contractor will be responsible for maintaining a field logbook to document observations, transporter's personnel on-site, truck arrival and departure times, and other vital project information.

6.3 Truck/Equipment Inspection Log Book

All trucks and equipment used in project activities will be inspected daily and prior to entering and leaving the Site. A log book will be kept to document thorough and complete inspections.

6.4 Weekly Reports

The Contractor will summarize the transportation activities and accomplishments of each week in a weekly report. The weekly report will also include the completion status of all project objectives, verify the Contractor's adherence to proper site health and safety procedures, and describe the following week's activities and goals. The weekly reports will be submitted to PG&E by the following Wednesday.

7. Plan Review Corrective Actions

7.1 Plan Update Log

This Transportation Plan is a "living document" that will be updated as needed based on changed project circumstances or lessons learned that may occur during execution of the project. The Contractor will keep a log of all updates to the Transportation Plan, recording written acknowledgment of any changes or additions. Updates to the Transportation Plan should be approved by DOI prior to implementation.

7.2 Corrective Action Log

The Contractor will keep a log of all corrective actions taken to accomplish project objectives.

8. References

California Department of Toxic Substances Control (DTSC). 1994. *Transportation Plan. Preparation Guidance for Site Remediation*. May.

United States Department of Interior. 2021. *Request for a Non-Time Critical Soil Removal Action at Areas of Concern and Solid Waste Management Units*, Pacific Gas and Electric, Topock Compressor Station. October.

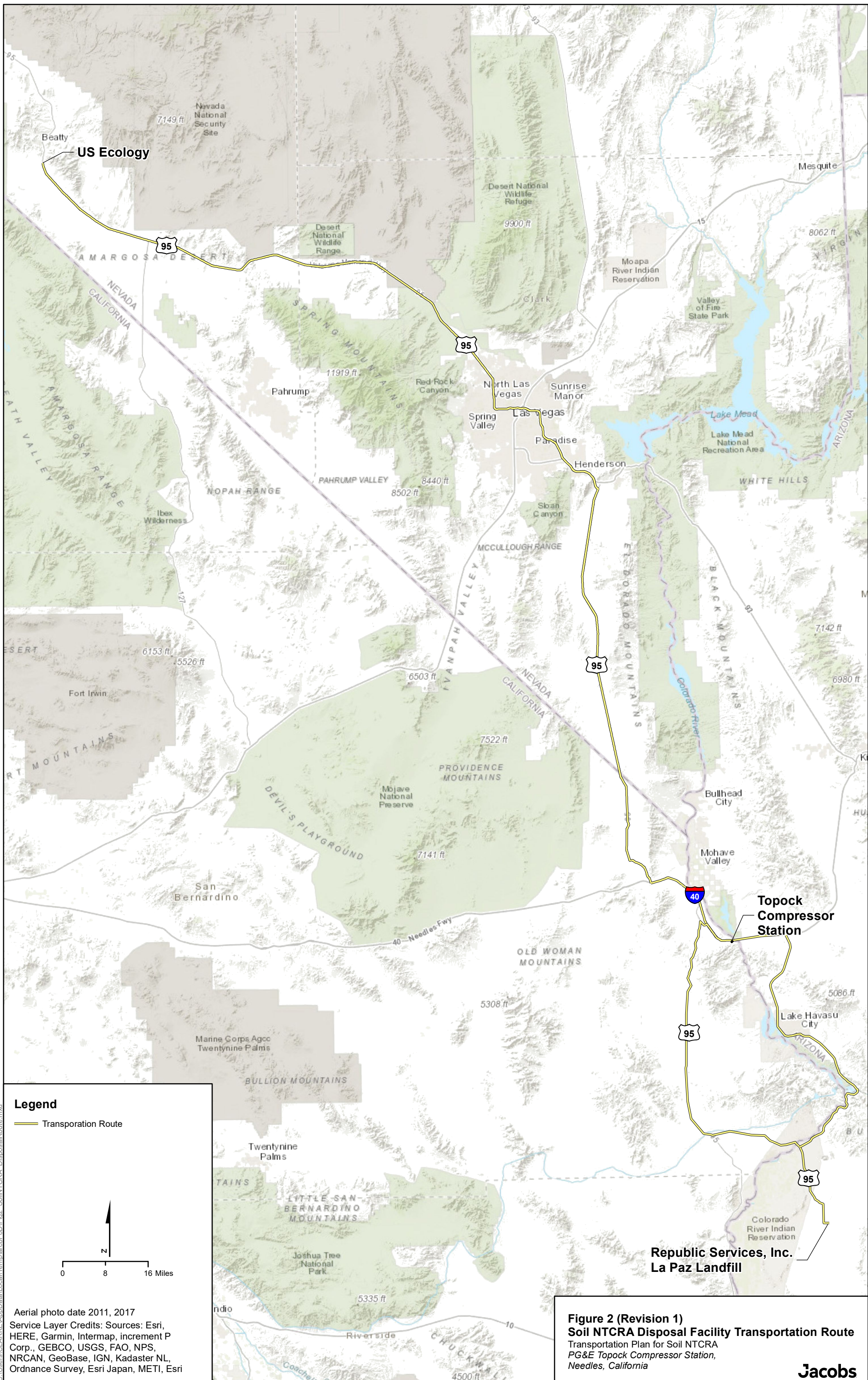
Figures

Figure 1 Soil NTCRA Transportation Routes



Figure 1
Soil NTCRA Transportation Routes
 Transportation Plan for Soil NTCRA
 PG&E Topock Compressor Station,
 Needles, California

Figure 2 Soil NTCRA Disposal Facility Transportation Route (Revised)



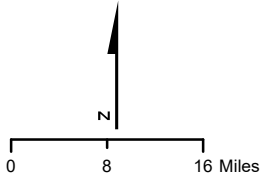
US Ecology

Topock Compressor Station

Republic Services, Inc.
La Paz Landfill

Legend

— Transportation Route



Aerial photo date 2011, 2017
 Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri

Figure 2 (Revision 1)
Soilt NTCRA Disposal Facility Transportation Route
 Transportation Plan for Soilt NTCRA
 PG&E Topock Compressor Station,
 Needles, California

Jacobs



Iain Baker
Manager, Environmental Remediation

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San Francisco, CA 94105
(415) 314-8530
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August 19, 2022

Veronica Dickerson
Department of the Interior
4316 Nichols Road
Medina, Ohio 44256

Subject: Errata – Soil Non-Time Critical Removal Action Work Plan, Pacific Gas and Electric Company Topock Compressor Station, Needles, California.

Dear Ms. Dickerson:

This submittal provides notice of the need to make a minor revision to Appendix D of the Final Soil Non-Time Critical Action (NTCRA) Work Plan, dated June 2022. It was brought to PG&E's attention on Thursday, August 11, 2022 by the Tribal monitors that Appendix D contained language that conflicted with previously agreed upon decisions (items are outlined below). To ensure consistency with discussions during the Response to Comment (RTC) meetings on April 26, 2022 and May 5, 2022, Consultative Work Group (CWG) meeting June 22, 2022 as well as the onsite project initiation meeting on July 14, 2022. The revision will correct the Appendix D text to remove the requirements for nonhazardous soil stockpiles to be placed on a liner.

Appendix D Section 2.3.3 – Stockpile Management (The language is provided below as it currently reads in Appendix D):

Nonhazardous Soil above Soil Management Screening Levels

Soil above approved soil management screening levels can be stockpiled if placed on liner or placed in roll-off bins or similar containers. The following BMPs will be followed:

- *Stockpiles will be constructed with liners and perimeter berms to prevent release or infiltration of liquids.*
- *The perimeter berm will be constructed of clean materials (such as straw wattle under the liner).*
- *If a cover is employed, it will extend over the outer edges of the perimeter berm and liner so that rainfall is prevented from entering the bermed area.*

Appendix D Section 2.3.3 – Stockpile Management (The revised language to be in line with the RTC is provided below):

Nonhazardous Soil above Soil Management Screening Levels

Soil above approved soil management screening levels can be stockpiled ~~if placed on liner~~ or placed in roll-off bins or similar containers. The following BMPs will be followed:

- *Stockpiles will be constructed with ~~liners and~~ perimeter berms to prevent release or runoff of liquids.*
- *The perimeter berm will be constructed of clean materials (such as straw wattle ~~under the liner~~).*
- *If a cover is employed, it will extend over the outer edges of the perimeter berm ~~and liner~~ so that rainfall is prevented from entering the bermed area.*

Ms. Dickerson
August 19, 2022

Justification:

During Response to Comment meetings for the Soil NTCRA Work Plan held on April 26, 2022 and May 5, 2022, CWG June 22, 2022 as well as the onsite Project Initiation meeting held on July 14, 2022, discussions between PG&E, Agencies, and Stakeholders were held regarding the management of soil and stockpiles within the Soil Processing Yard (SPY). During those meetings, the use of liners beneath stockpiles of contaminated soil above approved soil management screening levels during the Soil NTCRA was discussed. Based on previous experience of stockpile management within the SPY, and due to the nature of the NTCRA soil screening process, it was determined that plastic liners would not be appropriate to use beneath the stockpiles to avoid waste plastic in the backfill. Instead, post-stockpile confirmation sampling will be conducted to confirm the soils beneath the stockpiles have not been impacted by Soil NTCRA activities (Section 2.3.3.1 in NTCRA Work Plan). Confirmation soil sampling results will be reported to DOI and included in the completion report.

Please call me at (415) 314-8530 if you have any questions regarding this report.

Sincerely,

John Glass,

A handwritten signature in blue ink that reads "John Glass". The signature is written in a cursive style with a large initial "J" and a long, sweeping underline.

On behalf of Iain Baker

Attachment – Relevant RTCs from April 26, 2022 and May 5, 2022 RTC Meetings

PG&E Topock Compressor Station – Responses to Comments on the Soil Non-Time-Critical Removal Action Work Plan

PG&E Topock Compressor Station, Needles, California

Comment No.	Agency/ Stakeholder	Unique Comment ID (if applicable) ²	Section/ Page	Reference Text	Soil Non-Time-Critical Removal Action Work Plan Comment (Please provide sufficient detail, include specifically what you are looking for)	PG&E Response	DTSC Response	DOI Response	Tribes Response	Final Resolution
151	DTSC-24	24	Page 2-9, Section 2.3.2	However, no bottom liner will be required if the stockpile is located within the extent of the TAA.	No bottom liner is fine as long as a stockpile is placed on top of a “dirty” TAA material/soil area that will be excavated and removed later. Otherwise, bottom liners are requested to help guide work crews with removing all of the potentially or confirmed contaminated pile while minimizing removal of cleaner soil. Revision is requested to clarify this issue. Please ensure that similar changes are made to the BMP Plan (Appendix D).	The text in Section 2.3.2 and Appendix D have been revised to indicate temporary staging of materials in a TAA will occur on potentially contaminated material slated to be excavated.				Text revised, comment resolved pending review of BMPs for AOC 14.
153	DTSC-26	26	Page 2-9, Section 2.3.3	N.A.	The section should clarify how and when contaminated stockpiles will be covered to prevent dispersion due to high winds or rain. Contaminated materials (e.g., excavated soil and debris and fine materials) should be placed in covered bins or on lined plastic sheeting and then covered until transported. In general, contaminated soil and materials should be placed on tarps to assist in removing the soil later. Confirmation soil sampling would be conducted after the stockpile and liner have been removed.	Section 2.3.3 provides an overview of stockpile construction and management. The requested details are provided in the BMP Plan (Appendix D).				See Response to Comment #151
154	DTSC-27	27	Page 2-9, Section 2.3.3, 1 st bullet	Temporary staging of excavated soil and debris may also be required at individual TAAs prior to transport to the SPY.	Depending how the temporary staging is conducted, confirmation soil samples may need to be taken to ensure all significant contamination associated with the temporary pile has been appropriately removed from the area. Please revise the plan to address this issue.	Temporary staging will occur on “dirty” and “to-be” excavated material. Therefore, liners and confirmation soil sampling will not be warranted. See response to Comment #151				See Response to Comment #151
161	DTSC-34	34	Page 2-11, Section 2.3.7	N.A.	After all contaminated soils have been removed offsite, a confirmation sampling program should be implemented to ensure contaminated media were properly handled and appropriately removed. The work plan should include the process for tracking the areas where contaminated soils were placed, managed, or processed so that they can be promptly surveyed and identified for confirmatory soil sampling after contamination is taken offsite. Baseline soil sampling might be prudent.	Post-construction confirmation samples will be collected from all areas where contaminated media was handled or stored. Placement, management, and processing of contaminated soil will only occur within the SPY. Tracking of soil will follow the same process used for the groundwater remedy. Baseline samples have already been collected from the SPY. See new Section 2.3.3.1				Text revised, comment resolved.

Notes:

¹ Cocopah = Cocopah Indian Tribe; DOI = U.S. Department of the Interior; DTSC = California Department of Toxic Substances Control; FMIT = Fort Mojave Indian Tribe; MWD = Metropolitan Water District; Quechan = Quechan Indian Tribe

² Comment ID as it appeared in the commenter's original comment letter (where applicable).

N.A. = not applicable

From: [Dickerson, Veronica L](#)
To: [Sheets, Keith](#); [Reynolds, Michael](#)
Subject: [EXTERNAL] Fw: PG&E Topock Soil NTCRA - Workplan Errata
Date: Tuesday, October 25, 2022 10:51:12 AM
Attachments: [Topock NTCRA Workplan Errata Letter 19Aug2022 \(1\).pdf](#)

Veronica Dickerson
Environmental Compliance and Cleanup Division
Office of Environmental Policy and Compliance (OEPC)
US Department of Interior

440-665-0915

From: Dickerson, Veronica L
Sent: Tuesday, October 25, 2022 9:48 AM
To: Doherty, Nathalie X <Nathalie.Doherty@sol.doi.gov>; Glass, John <F2G5@pge.com>; nso@azdeq.gov <nso@azdeq.gov>; TO2@azdeq.gov <TO2@azdeq.gov>; alexander.funk@wildlife.ca.gov <alexander.funk@wildlife.ca.gov>; David.Vigil@wildlife.ca.gov <David.Vigil@wildlife.ca.gov>; Alexander.Valentine@Waterboards.ca.gov <Alexander.Valentine@Waterboards.ca.gov>; greg.middleton@waterboards.ca.gov <greg.middleton@waterboards.ca.gov>; Jose.cortez@waterboards.ca.gov <Jose.cortez@waterboards.ca.gov>; paula.rasmussen@waterboards.ca.gov <paula.rasmussen@waterboards.ca.gov>; Scot.Stormo@Waterboards.ca.gov <Scot.Stormo@Waterboards.ca.gov>; Zakary.Owens@Waterboards.ca.gov <Zakary.Owens@Waterboards.ca.gov>; chairman@cit-nsn.gov <chairman@cit-nsn.gov>; ronetribe@yahoo.com <ronetribe@yahoo.com>; administrator@cit-nsn.gov <administrator@cit-nsn.gov>; rcheng@cvwd.org <rcheng@cvwd.org>; cocopahtpm@gmail.com <cocopahtpm@gmail.com>; rjuricich@crb.ca.gov <rjuricich@crb.ca.gov>; jneuwerth@crb.ca.gov <jneuwerth@crb.ca.gov>; amelia.flores@crit-nsn.gov <amelia.flores@crit-nsn.gov>; doug.bonamici@crit-nsn.gov <doug.bonamici@crit-nsn.gov>; betsitty@crit-nsn.gov <betsitty@crit-nsn.gov>; aaron.yue@dtsc.ca.gov <aaron.yue@dtsc.ca.gov>; Guerre, Christopher@DTSC <Christopher.Guerre@dtsc.ca.gov>; Collin.Kelly@dtsc.ca.gov <Collin.Kelly@dtsc.ca.gov>; Criss.Trinidad@dtsc.ca.gov <Criss.Trinidad@dtsc.ca.gov>; jose.marcos@dtsc.ca.gov <jose.marcos@dtsc.ca.gov>; karen.baker@dtsc.ca.gov <karen.baker@dtsc.ca.gov>; lori.hare@dtsc.ca.gov <lori.hare@dtsc.ca.gov>; shukla.roy-semmen@dtsc.ca.gov <shukla.roy-semmen@dtsc.ca.gov>; yolanda.garza@dtsc.ca.gov <yolanda.garza@dtsc.ca.gov>; NoraMcDowell@fortmojave.com <NoraMcDowell@fortmojave.com>; CourtCoyle@aol.com <CourtCoyle@aol.com>; Lleonhart@hargis.com <Lleonhart@hargis.com>; mlong@hargis.com <mlong@hargis.com>; smcdonald@spmcdonaldlaw.com <smcdonald@spmcdonaldlaw.com>; trossi@hargis.com <trossi@hargis.com>; historicpreservation@quechantribe.com <historicpreservation@quechantribe.com>; martina.dawley@hualapai-nsn.gov <martina.dawley@hualapai-nsn.gov>; bkuo@mwdh2o.com <bkuo@mwdh2o.com>; jteraoka@mwdh2o.com <jteraoka@mwdh2o.com>; mtlopez@mwdh2o.com <mtlopez@mwdh2o.com>; MSantos@mwdh2o.com <MSantos@mwdh2o.com>;

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Meyers, Richard J <richard_meyers@fws.gov>

Subject: PG&E Topock Soil NTCRA - Workplan Errata

All -

This email notifies PG&E, DTSC, the Tribes, the TRC, and stakeholders of an errata to the Final Soil Non-Time Critical Action (NTCRA) Work Plan, dated June 2022. It was brought to the groups attention in August that there was an error in the Final NTCRA Work Plan as it related to Appendix D.

DOI realizes there is no easy answer to the plastic issue we are faced with. By placing plastic under soils removed from NTCRA areas there is a significant risk of the plastic being shredded during the sorting process and then being intermixed with soils. Clean sorted soils as we know are slated to be utilized as backfill in approved areas. There is a high probability that these sorted soils would then contain shredded plastic and be placed as backfill.

By not placing plastic under soils removed from NTCRA areas there is concern that the ground under the soils removed from NTCRA areas may become contaminated. To address this concern post-stockpile confirmation sampling would be conducted to confirm the soils beneath the stockpiles have not been impacted by Soil NTCRA activities.

My predecessor had determined that the risk of plastic ending up in the backfill was too great a risk (based on her past experience) and therefore determined that no liners would be utilized and post confirmation sampling would take place where stockpiles had been placed.

The errata will correct the Appendix D text of the NTCRA Work Plan to remove the requirements for nonhazardous soil stockpiles to be placed on a liner. Please see the attached PDF for details.

Sincere Regards,

Veronica Dickerson
Environmental Compliance and Cleanup Division

Office of Environmental Policy and Compliance (OEPC)
US Department of Interior

440-665-0915



Iain Baker
Manager, Environmental Remediation

77 Beale Street, B28P
San Francisco, CA 94105
(415) 314-8530
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August 19, 2022

Veronica Dickerson
Department of the Interior
4316 Nichols Road
Medina, Ohio 44256

Subject: Errata – Soil Non-Time Critical Removal Action Work Plan, Pacific Gas and Electric Company Topock Compressor Station, Needles, California.

Dear Ms. Dickerson:

This submittal provides notice of the need to make a minor revision to Appendix D of the Final Soil Non-Time Critical Action (NTCRA) Work Plan, dated June 2022. It was brought to PG&E's attention on Thursday, August 11, 2022 by the Tribal monitors that Appendix D contained language that conflicted with previously agreed upon decisions (items are outlined below). To ensure consistency with discussions during the Response to Comment (RTC) meetings on April 26, 2022 and May 5, 2022, Consultative Work Group (CWG) meeting June 22, 2022 as well as the onsite project initiation meeting on July 14, 2022. The revision will correct the Appendix D text to remove the requirements for nonhazardous soil stockpiles to be placed on a liner.

Appendix D Section 2.3.3 – Stockpile Management (The language is provided below as it currently reads in Appendix D):

Nonhazardous Soil above Soil Management Screening Levels

Soil above approved soil management screening levels can be stockpiled if placed on liner or placed in roll-off bins or similar containers. The following BMPs will be followed:

- *Stockpiles will be constructed with liners and perimeter berms to prevent release or infiltration of liquids.*
- *The perimeter berm will be constructed of clean materials (such as straw wattle under the liner).*
- *If a cover is employed, it will extend over the outer edges of the perimeter berm and liner so that rainfall is prevented from entering the bermed area.*

Appendix D Section 2.3.3 – Stockpile Management (The revised language to be in line with the RTC is provided below):

Nonhazardous Soil above Soil Management Screening Levels

Soil above approved soil management screening levels can be stockpiled ~~if placed on liner~~ or placed in roll-off bins or similar containers. The following BMPs will be followed:

- *Stockpiles will be constructed with ~~liners and~~ perimeter berms to prevent release or runoff of liquids.*
- *The perimeter berm will be constructed of clean materials (such as straw wattle ~~under the liner~~).*
- *If a cover is employed, it will extend over the outer edges of the perimeter berm ~~and liner~~ so that rainfall is prevented from entering the bermed area.*

Ms. Dickerson
August 19, 2022

Justification:

During Response to Comment meetings for the Soil NTCRA Work Plan held on April 26, 2022 and May 5, 2022, CWG June 22, 2022 as well as the onsite Project Initiation meeting held on July 14, 2022, discussions between PG&E, Agencies, and Stakeholders were held regarding the management of soil and stockpiles within the Soil Processing Yard (SPY). During those meetings, the use of liners beneath stockpiles of contaminated soil above approved soil management screening levels during the Soil NTCRA was discussed. Based on previous experience of stockpile management within the SPY, and due to the nature of the NTCRA soil screening process, it was determined that plastic liners would not be appropriate to use beneath the stockpiles to avoid waste plastic in the backfill. Instead, post-stockpile confirmation sampling will be conducted to confirm the soils beneath the stockpiles have not been impacted by Soil NTCRA activities (Section 2.3.3.1 in NTCRA Work Plan). Confirmation soil sampling results will be reported to DOI and included in the completion report.

Please call me at (415) 314-8530 if you have any questions regarding this report.

Sincerely,

John Glass,

A handwritten signature in blue ink that reads "John Glass". The signature is cursive and fluid, with the first name "John" being more prominent than the last name "Glass".

On behalf of Iain Baker

Attachment – Relevant RTCs from April 26, 2022 and May 5, 2022 RTC Meetings

PG&E Topock Compressor Station – Responses to Comments on the Soil Non-Time-Critical Removal Action Work Plan

PG&E Topock Compressor Station, Needles, California

Comment No.	Agency/ Stakeholder	Unique Comment ID (if applicable) ²	Section/ Page	Reference Text	Soil Non-Time-Critical Removal Action Work Plan Comment (Please provide sufficient detail, include specifically what you are looking for)	PG&E Response	DTSC Response	DOI Response	Tribes Response	Final Resolution
151	DTSC-24	24	Page 2-9, Section 2.3.2	However, no bottom liner will be required if the stockpile is located within the extent of the TAA.	No bottom liner is fine as long as a stockpile is placed on top of a “dirty” TAA material/soil area that will be excavated and removed later. Otherwise, bottom liners are requested to help guide work crews with removing all of the potentially or confirmed contaminated pile while minimizing removal of cleaner soil. Revision is requested to clarify this issue. Please ensure that similar changes are made to the BMP Plan (Appendix D).	The text in Section 2.3.2 and Appendix D have been revised to indicate temporary staging of materials in a TAA will occur on potentially contaminated material slated to be excavated.				Text revised, comment resolved pending review of BMPs for AOC 14.
153	DTSC-26	26	Page 2-9, Section 2.3.3	N.A.	The section should clarify how and when contaminated stockpiles will be covered to prevent dispersion due to high winds or rain. Contaminated materials (e.g., excavated soil and debris and fine materials) should be placed in covered bins or on lined plastic sheeting and then covered until transported. In general, contaminated soil and materials should be placed on tarps to assist in removing the soil later. Confirmation soil sampling would be conducted after the stockpile and liner have been removed.	Section 2.3.3 provides an overview of stockpile construction and management. The requested details are provided in the BMP Plan (Appendix D).				See Response to Comment #151
154	DTSC-27	27	Page 2-9, Section 2.3.3, 1 st bullet	Temporary staging of excavated soil and debris may also be required at individual TAAs prior to transport to the SPY.	Depending how the temporary staging is conducted, confirmation soil samples may need to be taken to ensure all significant contamination associated with the temporary pile has been appropriately removed from the area. Please revise the plan to address this issue.	Temporary staging will occur on “dirty” and “to-be” excavated material. Therefore, liners and confirmation soil sampling will not be warranted. See response to Comment #151				See Response to Comment #151
161	DTSC-34	34	Page 2-11, Section 2.3.7	N.A.	After all contaminated soils have been removed offsite, a confirmation sampling program should be implemented to ensure contaminated media were properly handled and appropriately removed. The work plan should include the process for tracking the areas where contaminated soils were placed, managed, or processed so that they can be promptly surveyed and identified for confirmatory soil sampling after contamination is taken offsite. Baseline soil sampling might be prudent.	Post-construction confirmation samples will be collected from all areas where contaminated media was handled or stored. Placement, management, and processing of contaminated soil will only occur within the SPY. Tracking of soil will follow the same process used for the groundwater remedy. Baseline samples have already been collected from the SPY. See new Section 2.3.3.1				Text revised, comment resolved.

Notes:

¹ Cocopah = Cocopah Indian Tribe; DOI = U.S. Department of the Interior; DTSC = California Department of Toxic Substances Control; FMIT = Fort Mojave Indian Tribe; MWD = Metropolitan Water District; Quechan = Quechan Indian Tribe

² Comment ID as it appeared in the commenter's original comment letter (where applicable).

N.A. = not applicable

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Subject: **Comparative Analysis: XRF and Dioxin/Furan Quantitative Screening Analyses
Soil Non-Time Critical Removal Action (NTCRA)
PG&E Topock Compressor Station, Needles, California**

To: Pacific Gas and Electric Company (PG&E) and the U.S. Department of Interior (DOI)

From: Jacobs

Date: December 2022

In October 2021, the U.S. Department of the Interior (DOI) issued an Action Memorandum titled “*Request for a Non-Time-Critical Soil Removal Action at Areas of Concern and Solid Waste Management Units, Pacific Gas and Electric Topock Compressor Station*” (DOI 2021) directing Pacific Gas and Electric Company (PG&E) to implement a Soil Non-Time-Critical Removal Action (NTCRA) at the Topock Compressor Station (TCS) in Needles, California. The Soil NTCRA is intended to address the release or substantial threat of a release of hazardous substances from the TCS to the Havasu National Wildlife Refuge (HNWR) or adjacent areas.

As described in the Final Soil NTCRA Work Plan (Work Plan) (Jacobs 2022), removal activities are guided by a phased approach to screening and confirmation laboratory analysis. Screening level and laboratory level confirmation sample data are compared to the numerical removal action goals (RAGs) referenced in the Action Memorandum (DOI 2021). The phased approach is summarized as follows:

1. Excavation is conducted within the target action areas (TAA) boundaries
2. Soil samples are collected for screening and confirmation laboratory analysis.
3. Field screening of metals using a field-portable X-ray fluorescence (XRF) analyzer is performed. If screening level results indicate metal concentrations exceed the numerical RAGs, then removal will continue in accordance with the removal approach described in the Work Plan.
4. When field screening level results indicate metals concentrations are less than the numerical RAGs, a portion of the sample will then be segregated for quantitative analytical screening for dioxin/furans (D/F) using method SW4025 and confirmation laboratory analysis of metals by methods SW6010/7199/7471A and D/F by method SW8290. Method SW4025 is an immunoassay process capable of providing accurate quantitative results for D/F toxicity equivalent (TEQ) within approximately 48 hours. If screening or confirmation results indicate metals and/or D/F concentrations exceed the numerical RAGs, then removal will continue in accordance with the removal approach described in the Work Plan.
5. Removal is complete when numerical RAGs have been achieved or when further excavation is deemed unsafe or undesirable based on TAA-specific limiting criteria presented in the Work Plan.

If additional removal activities are required for a given area based on this process, the screening process will restart with the collection of a new soil sample from the freshly exposed surface.

This memorandum presents a comparative analysis of screening methods to confirmation laboratory analysis for metals and D/F. Results from the XRF field analyzer and analytical methods for metals (SW6010B and SW7471A) are compared and evaluated. D/F TEQ results from the immunoassay method

SW4025 and standard analytical method SW8290 are also compared and evaluated. The objective of the memorandum is to confirm that results from quantitative screening level analyses (XRF and SW4025) are suitable to guide Soil NTCRA removal activities. Based on the findings of this comparative study, an adjustment to how XRF measurements are used in the screening process is warranted. An approach for how XRF results are to be used is presented below.

1. Metals

Soil samples collected during the Soil NTCRA are analyzed for the following metals for which numerical RAGs have been established:

- Chromium (both total and hexavalent)
- Copper
- Lead
- Mercury
- Molybdenum
- Zinc

Screening level samples are analyzed in the field with a ThermoFisher Scientific Niton XL5 handheld XRF analyzer. For increased accuracy, the manufacturer recommends a scan time of 2 minutes. Each soil sample will be scanned three times for 2 minutes each time. The three individual results will be averaged to provide the final XRF results. The XRF analyzer only measures total chromium and does not discern hexavalent chromium concentrations; therefore hexavalent chromium data is not presented in this memorandum. XRF results are reported in parts per million (ppm).

If XRF screening results are less than the numerical RAG, then split samples are submitted to Asset Laboratories in Las Vegas, Nevada, for analysis via analytical methods SW6010B/7199/SW7471A. While the Asset Laboratory can provide a 48-hour turnaround time (TAT) on metals analysis, the ability to obtain near real-time results via the XRF analyzer of the presence or absence of metals at concentrations exceeding the numerical RAGs is helpful and efficient.

Laboratory analyses follow standard method protocols and are validated according to the *Quality Assurance Project Plan Addendum for the RCRA Facility Investigation/Remedial Investigation for Soil at the Topock Compressor Station* (Jacobs 2019).

2. Dioxins/Furans

Quantitative analytical screening samples for D/F using immunoassay method SW4025 are submitted to Cape Technologies in South Portland, Maine. This initial D/F immunoassay analysis provides quantitative analytical screening results with an expedited TAT of approximately 48 hours. Method SW4025 has been approved for screening purposes; however, it is not an approved analytical method in California. Split samples are also submitted to Pace Analytical in Minneapolis, Minnesota, for analysis via standard analytical method SW8290, which is a State of California approved method. If metals (via SW6010B and SW7471) and D/F (via SW4025) results are less than the numerical RAG, then the sample will be analyzed for D/F using SW8290.

The TAT for D/F analysis via SW8290 is between 3 to 6 weeks. A TAT of 3 to 6 weeks is a concern for the Soil NTCRA because excavations would need to stay open and not be backfilled until confirmation soil sample results are returned. Open excavations are a safety concern for workers, hikers, all-terrain vehicle (ATV) riders, and wildlife, and because of the potential for them to fill with water during rain events. In addition, several TAAs are in areas that would result in access issues for Topock facility operations and other active construction and remediation projects if excavations were left open for an extended period of time.

The SW4025 immunoassay method provides a single total TEQ result. Method SW8290 provides results for individual congeners. The D/F TEQ is calculated by summation of individual congeners multiplied by their toxicity factors. For this comparative study, the immunoassay method total TEQ results are compared to the SW8290 TEQ (human) results.

3. Data Set Used for Comparative Study

Nine samples were collected in July 2022 prior to the start of Soil NTCRA activities from TAAs: four samples from Bat Cave Wash, four samples from East Ravine, and one sample from Area of Concern (AOC) 11. Approximately 44 metals results and 34 D/F TEQ results are also available for the study from Soil NTCRA confirmation soil sampling from AOC 10, AOC 11, and Solid Waste Management Unit (SWMU) 1, collected between July 28 and October 13, 2022.

4. Metals Correlation Results

Table 1 provides the metal concentrations as reported by the XRF analyzer and those reported from Asset Laboratories using SW6010B. The table includes relative percent difference (RPD) values for individual sample results for each metal as well as average RPD values for each metal across all of the sample results. Mercury was not reported, as it was not detected with either the XRF analyzer or SW7471. Molybdenum is also not reported, as it was infrequently detected with the XRF analyzer and via SW6010B.

Figures 1 and 2 provide scatter plots of the available metals data via XRF and analytical methods. Figure 1 is a scatter plot of chromium concentrations. Figure 2 combines the lead, copper, and zinc data. A trend line with squared correlation coefficient (R^2) value has been added to each plot. A summary of the tabulated data and scatter plots trends identifies the following:

- The chromium data have an R^2 value of 0.9138, indicating a strong trend between the XRF results and the analytical results; 73 percent of the XRF chromium results were greater than the analytical results. The average RPD between XRF and analytical results is 98 percent.
- The copper, lead, and zinc data have R^2 values of 0.4563, 0.797, and 0.2594, respectively, indicating medium to weak trends between the XRF results and the analytical results. The data show 55 percent, 94 percent, and 83 percent of the XRF copper, lead, and zinc results were greater than the analytical results, respectively. The average RPDs between XRF and analytical results are 46 percent, 70 percent, and 40 percent for copper, lead, and zinc, respectively.

While R^2 values between the XRF results and the analytical results did not always indicate a statistically strong trend, the XRF correctly identified when total chromium concentrations were above the RAG or below the RAG in 45 out of 53 samples, or 85 percent of the time (see Table 2). Discrepancies between XRF and analytical data for total chromium are primarily at low concentrations just above or below the 145 mg/kg RAG (Figures 3 and 4). If a threshold value of 500 ppm is used, the predictive accuracy increases significantly to 98 percent. For example, only one sample (AOC11TAA1-CW3-6) had an XRF result for chromium greater than 500 ppm while the analytical result was below the 145 mg/kg RAG. Table 2 provides the individual sample ratio of XRF result to analytical result for total chromium. The average ratio across all of the samples is 2.2, indicating that XRF results are on average about 2 times greater than the analytical results.

Based on the predictive accuracy of XRF data for assessing when metals concentrations are well above the RAGs, the XRF is useful in aiding removal activities. Therefore, an adjustment to the phased approach for screening and confirmation laboratory analysis is warranted when using XRF data to determine the need for additional excavation; a threshold value of 500 ppm chromium is recommended.

The XRF correctly predicted copper, lead, and zinc were above or below the RAGs 96 percent, 98 percent, and 94 percent of the time, respectively. Therefore, no adjustments to their threshold values are warranted. Furthermore, copper, lead, and zinc at concentrations greater than their numerical RAGs have only been observed in samples with total chromium greater than the numerical RAG.

5. Dioxins/Furans Correlation Results

Table 3 provides the TEQ concentrations as reported by the immunoassay method SW4025 and calculated TEQ (human) concentrations from the standard analytical method SW8290. The table includes RPD for individual sample results and average RPD for all sample results. Figure 5 provides a scatter plot of the available SW4025 and SW8290 data, including a trend line with R^2 value. A summary of the tabulated data and scatter plots trends identifies the following:

- The TEQ data have an R^2 value of 0.3988, indicating a low to medium-strength trend between the SW4025 and SW8290 results. The average RPD between the SW4025 and SW8290 results is 92 percent.
- The data show 62 percent of the SW4025 results were greater than the SW8290 results.

While the R^2 value does not indicate a strong trend, the SW4025 method correctly identified when TEQ concentrations were above or below the RAG in 30 out of 33 samples, or 91 percent of the time (Figure 6, Table 3). The SW4025 data are suitable for determining if D/F concentrations are above or below the RAG and are therefore useful in aiding removal activities, including the decision cease removal activities and begin to backfill. As noted in the Work Plan, if subsequent confirmation results using SW8290 indicate that TEQ concentrations significantly exceed the numerical RAG, and average confirmation sample concentrations are above the RAG, then DOI will be consulted, and continued removal may be required, including backfilled areas.

6. References

Jacobs Engineering Group Inc. (Jacobs). 2019. *Quality Assurance Project Plan Addendum for the RCRA Facility Investigation/Remedial Investigation for Soil at the Topock Compressor Station*. July.

Jacobs Engineering Group Inc. (Jacobs). 2022. *Work Plan for Soil Non-Time-Critical Removal Action, PG&E Topock Compressor Station, Needles, California*. June.

U.S. Department of the Interior (DOI). 2021. *Request for a Non-Time-Critical Soil Removal Action at Areas of Concern and Solid Waste Management Units, Pacific Gas and Electric Topock Compressor Station*. October.

Tables

Table 1
Metals Results via XRF and SW6010B
Soil NonTime Critical Removal Action
Topock Compressor Station, Needles, California

Sample ID	Chromium			Copper			Lead			Zinc		
	XRF (ppm)	SW6010B (mg/kg)	RPD	XRF (ppm)	SW6010B (mg/kg)	RPD	XRF (ppm)	SW6010B (mg/kg)	RPD	XRF (ppm)	SW6010B (mg/kg)	RPD
RAG (mg/kg)	145			145			36			1,050		
AOC10TAA2-PRE-1-1	55	62	11%	33	35	7%	31	23	30%	104	90	15%
AOC10TAA2-PRE-2-2	172	200	15%	48	52	8%	38	27	35%	90	85	5%
AOC10TAA4-PRE-1-2	0	31	200%	22	23	3%	27	19	36%	74	56	28%
AOC10TAA1-PRE-1-1	9374	6000	44%	20	18	11%	9	9	1%	83	98	17%
AOC11TAA1-PRE-1-1	17	200	168%	14	17	22%	11	9	15%	50	49	3%
AOC1TAA1-PRE-1-2	59	28	71%	11	14	27%	10	8	27%	50	41	20%
AOC1TAA2-PRE-1-2	1007	150	148%	15	18	18%	12	2	154%	98	23	124%
AOC1TAA3-PRE-1-1	745	360	70%	21	18	15%	12	4	98%	142	85	50%
SWMU1TAA1-PRE-1-2	236	140	51%	11	13	14%	10	4	97%	55	44	23%
AOC11TAA1-CF-1-7.5	0	29	200%	26	18	38%	7	4	64%	63	58	9%
AOC11TAA1-CF-2-7.5	25	46	58%	24	23	6%	8	4	77%	78	64	20%
AOC11TAA1-CF-2-7.5FD	35	37	5%	24	17	34%	8	3	77%	95	58	48%
AOC11TAA1-CF-3-10	45	33	30%	23	14	47%	9	4	89%	100	54	60%
AOC11TAA1-CW1-3	442	92	131%	56	34	49%	13	5	86%	252	75	108%
AOC11TAA1-CW3-6	1660	29	193%	385	14	186%	36	11	106%	1195	70	178%
AOC11TAA1-CW5-6	321	100	105%	111	53	71%	16	14	15%	549	200	93%
AOC11TAA1-CW6-3	0	54	200%	3	27	160%	12	10	15%	47	82	54%
AOC11TAA1-CW7-3	2098	160	172%	1110	78	174%	31	9	107%	4324	330	172%
AOC11TAA1-CW8-3	42	18	80%	7	9	24%	12	10	18%	32	29	10%
AOC10TAA2-CW1-4	11612	5600	70%	664	450	38%	248	110	77%	670	600	11%
AOC10TAA2-CW2-3	9325	6700	33%	254	180	34%	118	75	45%	412	320	25%
AOC10TAA2-CW3-4	5404	4300	23%	395	380	4%	120	85	34%	388	390	1%
AOC10TAA2-CW4-4	6094	7000	14%	378	640	51%	106	170	46%	533	600	12%
AOC10TAA2-CW5-4	15442	6500	82%	798	590	30%	101	88	14%	1782	790	77%
AOC11TAA1-CW6a-4	47	31	41%	25	14	56%	11	3.2	110%	106	53	67%
AOC11TAA1-CW6a-4FD	0	27	200%	24	16	40%	4	3.4	16%	84	56	40%
AOC11TAA1-CW11a-4	87	25	111%	19	12	45%	9	2.5	113%	57	40	35%
AOC11TAA1-CF4-7	38	20	62%	4	10	85%	7	3.4	69%	36	36	0%
AOC11TAA1-CF5-7	36	20	57%	8	7	13%	15	5.4	94%	35	27	26%
AOC11TAA1-CF6-7	71	19	116%	14	10	33%	9	3.1	98%	66	37	56%
AOC11TAA1-CF7-7	80	21	117%	12	16	29%	7	2.9	83%	51	40	24%
AOC11TAA1-CW5a-4	36	26	32%	6	8	27%	9	6.1	38%	45	52	14%
AOC11TAA1-CW7a-4	160	35	128%	11	8	28%	14	12	15%	37	31	18%
AOC11TAA1-CW9a-4	73	25	98%	10	11	10%	11	2.9	117%	37	29	24%
AOC10TAA2-CW6-4	16043	9700	49%	253	290	14%	163	160	2%	339	340	0%
AOC10TAA2-CW6-4FD	16043	9600	50%	253	310	20%	163	180	10%	339	410	19%
AOC10TAA2-CW2a-4	130	61	72%	15	14	7%	9	4.0	77%	73	47	43%
AOC10TAA2-CW7-4	85	30	96%	28	11	87%	11	3.0	114%	88	38	79%
AOC10TAA2-CW7-4FD	85	17	133%	28	9	102%	11	2.7	121%	88	34	89%
AOC10TAA2-CW8-4	49	16	102%	9	10	9%	5	2.1	82%	50	34	38%
AOC10TAA2-CW9-5	0	22	200%	10	12	18%	7	2.8	86%	49	40	20%
AOC10TAA2-CW10-5	116	64	58%	9	11	20%	10	4.2	82%	50	42	17%
AOC10TAA2-CW11-4	228	100	78%	60	16	116%	9	2.7	108%	63	58	8%
SWMU1TAA1-CF1-10	0	17	200%	22	11	67%	9	5.4	50%	121	65	60%
SWMU1TAA1-CF2-10	159	49	106%	11	15	31%	7	1.4	133%	201	100	67%
SWMU1TAA1-CF3-10	6363	1800	112%	48	9	134%	8	2.2	114%	279	150	60%
SWMU1TAA1-CF4-10	1275	560	78%	24	15	46%	0	3.1	200%	173	150	14%
SWMU1TAA1-CW1-5	79	25	104%	12	12	0%	8	4.0	67%	49	39	23%
SWMU1TAA1-CW1-5FD	79	43	59%	12	13	8%	8	4.9	48%	49	46	6%
SWMU1TAA1-CW2-5	4701	1800	89%	12	12	0%	8	3.4	81%	468	250	61%
SWMU1TAA1-CW3-5	3573	1900	61%	27	12	77%	12	5.3	77%	99	83	18%
SWMU1TAA1-CW4-5	0	26	200%	14	11	24%	3	2.2	31%	47	44	7%
SWMU1TAA1-CW5-5	0	16	200%	0	12	200%	4	1.3	102%	49	32	42%
Average RPD			98%			46%			70%			40%

Notes:

mg/kg = milligrams per kilogram

ppm = parts per million

RPD = relative percent difference

XRF = x-ray fluorescence

RAG = Removal Action Goal

Sample Depth can be determined from the last digits of the sample ID, in feet below ground surface

Pre-investigation samples (identified with "PRE" in the sample ID) were collected on July 14 and 19, 2022

Soil NTCRA confirmation samples (identified with a "CF" or "CW" in the sample ID) were collected between July 28 and October 13, 2022

Table 2
Metals Results Comparison and Correction Factor
Soil NonTime Critical Removal Action
Topock Compressor Station, Needles, California

Sample ID	Chromium		Copper	Lead	Zinc
	Methods	Correction	Methods	Methods	Methods
	Agree?*	Factor	Agree?*	Agree?*	Agree?*
RAG (mg/kg)	145		145	36	1050
AOC10TAA2-PRE-1-1	Y	0.89	Y	Y	Y
AOC10TAA2-PRE-2-2	Y	0.86	Y	N	Y
AOC10TAA4-PRE-1-2	Y	0.00	Y	Y	Y
AOC10TAA1-PRE-1-1	Y	1.56	Y	Y	Y
AOC11TAA1-PRE-1-1	N	0.09	Y	Y	Y
AOC1TAA1-PRE-1-2	Y	2.11	Y	Y	Y
AOC1TAA2-PRE-1-2	Y	6.72	Y	Y	Y
AOC1TAA3-PRE-1-1	Y	2.07	Y	Y	Y
SWMU1TAA1-PRE-1-2	N	1.69	Y	Y	Y
AOC11TAA1-CF-1-7.5	Y	0.00	Y	Y	Y
AOC11TAA1-CF-2-7.5	Y	0.55	Y	Y	Y
AOC11TAA1-CF-2-7.5FD	Y	0.95	Y	Y	Y
AOC11TAA1-CF-3-10	Y	1.35	Y	Y	Y
AOC11TAA1-CW1-3	N	4.80	Y	Y	Y
AOC11TAA1-CW3-6	N	--**	N	Y	N
AOC11TAA1-CW5-6	N	3.21	Y	Y	Y
AOC11TAA1-CW6-3	Y	0.00	Y	Y	Y
AOC11TAA1-CW7-3	Y	13.11	N	Y	N
AOC11TAA1-CW8-3	Y	2.33	Y	Y	Y
AOC10TAA2-CW1-4	Y	2.07	Y	Y	Y
AOC10TAA2-CW2-3	Y	1.39	Y	Y	Y
AOC10TAA2-CW3-4	Y	1.26	Y	Y	Y
AOC10TAA2-CW4-4	Y	0.87	Y	Y	Y
AOC10TAA2-CW5-4	Y	2.38	Y	Y	N
AOC11TAA1-CW6a-4	Y	1.52	Y	Y	Y
AOC11TAA1-CW6a-4FD	Y	0.00	Y	Y	Y
AOC11TAA1-CW11a-4	Y	3.48	Y	Y	Y
AOC11TAA1-CF4-7	Y	1.90	Y	Y	Y
AOC11TAA1-CF5-7	Y	1.80	Y	Y	Y
AOC11TAA1-CF6-7	Y	3.74	Y	Y	Y
AOC11TAA1-CF7-7	Y	3.81	Y	Y	Y
AOC11TAA1-CW5a-4	Y	1.38	Y	Y	Y
AOC11TAA1-CW7a-4	N	4.57	Y	Y	Y
AOC11TAA1-CW9a-4	Y	2.92	Y	Y	Y
AOC10TAA2-CW6-4	Y	1.65	Y	Y	Y
AOC10TAA2-CW6-4FD	Y	1.67	Y	Y	Y
AOC10TAA2-CW2a-4	Y	2.13	Y	Y	Y
AOC10TAA2-CW7-4	Y	2.83	Y	Y	Y
AOC10TAA2-CW7-4FD	Y	5.00	Y	Y	Y
AOC10TAA2-CW8-4	Y	3.06	Y	Y	Y
AOC10TAA2-CW9-5	Y	0.00	Y	Y	Y
AOC10TAA2-CW10-5	Y	1.81	Y	Y	Y
AOC10TAA2-CW11-4	N	2.28	Y	Y	Y
SWMU1TAA1-CF1-10	Y	0.00	Y	Y	Y
SWMU1TAA1-CF2-10	N	3.24	Y	Y	Y
SWMU1TAA1-CF3-10	Y	3.54	Y	Y	Y

Table 2
Metals Results Comparison and Correction Factor
Soil NonTime Critical Removal Action
Topock Compressor Station, Needles, California

	Chromium		Copper	Lead	Zinc
Sample ID	Methods Agree?*	Correction Factor	Methods Agree?*	Methods Agree?*	Methods Agree?*
RAG (mg/kg)	145		145	36	1050
SWMU1TAA1-CF4-10	Y	2.28	Y	Y	Y
SWMU1TAA1-CW1-5	Y	3.16	Y	Y	Y
SWMU1TAA1-CW1-5FD	Y	1.84	Y	Y	Y
SWMU1TAA1-CW2-5	Y	2.61	Y	Y	Y
SWMU1TAA1-CW3-5	Y	1.88	Y	Y	Y
SWMU1TAA1-CW4-5	Y	0.00	Y	Y	Y
SWMU1TAA1-CW5-5	Y	0.00	Y	Y	Y
Percent of Method Agreement	74%		96%	98%	94%
Average Correction Factor	2.20				

Notes:

mg/kg = milligrams per kilogram

XRF = x-ray florescence

RAG = Removal Action Goal

Sample Depth can be determined from the last digits of the sample ID, in feet below ground surface

Pre-investigation samples (identified with "PRE" in the sample ID) were collected on July 14 and 19, 2022

Soil NTCRA confirmation samples (identified with a "CF" or "CW" in the sample ID) were collected between July 28 and October 13, 2022

* Methods agree if both XRF and SW6010B results are above or below the RAG

** Outlier value not used for calculating average.

Table 3
Dioxins/Furans (TEQ) Results via SW4025 and SW8290
Soil NonTime Critical Removal Action
Topock Compressor Station, Needles, California

Sample ID	Dioxins/Furans (TEQ)			
	SW4025 (ng/kg)	SW8290 (ng/kg)	Methods Agree? *	RPD
RAG	0 - 2 ft BGS = 100 ng/kg 2 - 10 ft BGS = 190 ng/kg			
AOC10TAA2-PRE-1-1	212	358	Y	51%
AOC10TAA2-PRE-2-2	285	222	Y	25%
AOC10TAA4-PRE-1-2	176	28	N	145%
AOC10TAA1-PRE-1-1	38	1	Y	190%
AOC11TAA1-PRE-1-1	202	184	Y	9%
AOC1TAA1-PRE-1-2	53	9	Y	140%
AOC1TAA2-PRE-1-2	124	186	Y	40%
AOC1TAA3-PRE-1-1	209	119	Y	55%
SWMU1TAA1-PRE-1-2	71	16	Y	126%
AOC11TAA1-CF-1-7.5	33	18	Y	59%
AOC11TAA1-CF-2-7.5	62	68	Y	9%
AOC11TAA1-CF-2-7.5FD	50	80	Y	46%
AOC11TAA1-CF-3-10	53	90	Y	51%
AOC11TAA1-CW3	62	83	Y	29%
AOC11TAA1-CW8-3	24	3	Y	154%
AOC11TAA1-CW6a-4	68	136	Y	67%
AOC11TAA1-CW6a-4FD	66	214	N	106%
AOC11TAA1-CW11a-4	19	4.60	Y	122%
AOC11TAA1-CF4-7	81	129	Y	46%
AOC11TAA1-CF5-7	16	0.88	Y	179%
AOC11TAA1-CF6-7	50	96	Y	63%
AOC11TAA1-CF7-7	35	24	Y	37%
AOC11TAA1-CW5a-4	60	62	Y	4%
AOC11TAA1-CW7a-4	59	14	Y	122%
AOC11TAA1-CW9a-4	41	17	Y	83%
AOC10TAA2-CW6-4	NA	1110	Y	NA
AOC10TAA2-CW6-4FD	183	779	N	124%
AOC10TAA2-CW2a-4	44	19	Y	79%
AOC10TAA2-CW7-4	11	0.65	Y	178%
AOC10TAA2-CW7-4FD	9.0	0.66	Y	173%
AOC10TAA2-CW8-4	14	1.27	Y	167%
AOC10TAA2-CW9-5	8.0	2.02	Y	119%
AOC10TAA2-CW10-5	15	4.49	Y	108%
AOC10TAA2-CW11-4	11	3.00	Y	114%
Percent of Method Agreement			91%	
Average RPD				92%

Notes:

ng/kg = nanograms per kilogram

RPD = relative percent difference

TEQ = toxic equivalents

NA = Not Applicable, as SW4025 value not quantified

Sample Depth can be determined from the last digits of the sample ID, in feet below ground surface (BGS)

Pre-investigation samples (identified with "PRE" in the sample ID) were collected on July 14 and 19, 2022

Soil NTCRA samples (identified with a "CF" or "CW" in the sample ID) were collected between July 28 and October 13, 2022

* Methods agree if both method results are above or below the RAG. 100 ng/kg is used for samples collected between 0-2 ft bgs; 190 ng/kg is used for samples collected between 2-10 ft bgs.

Figures

Figure 1
XRF vs. Analytical Results, Chromium

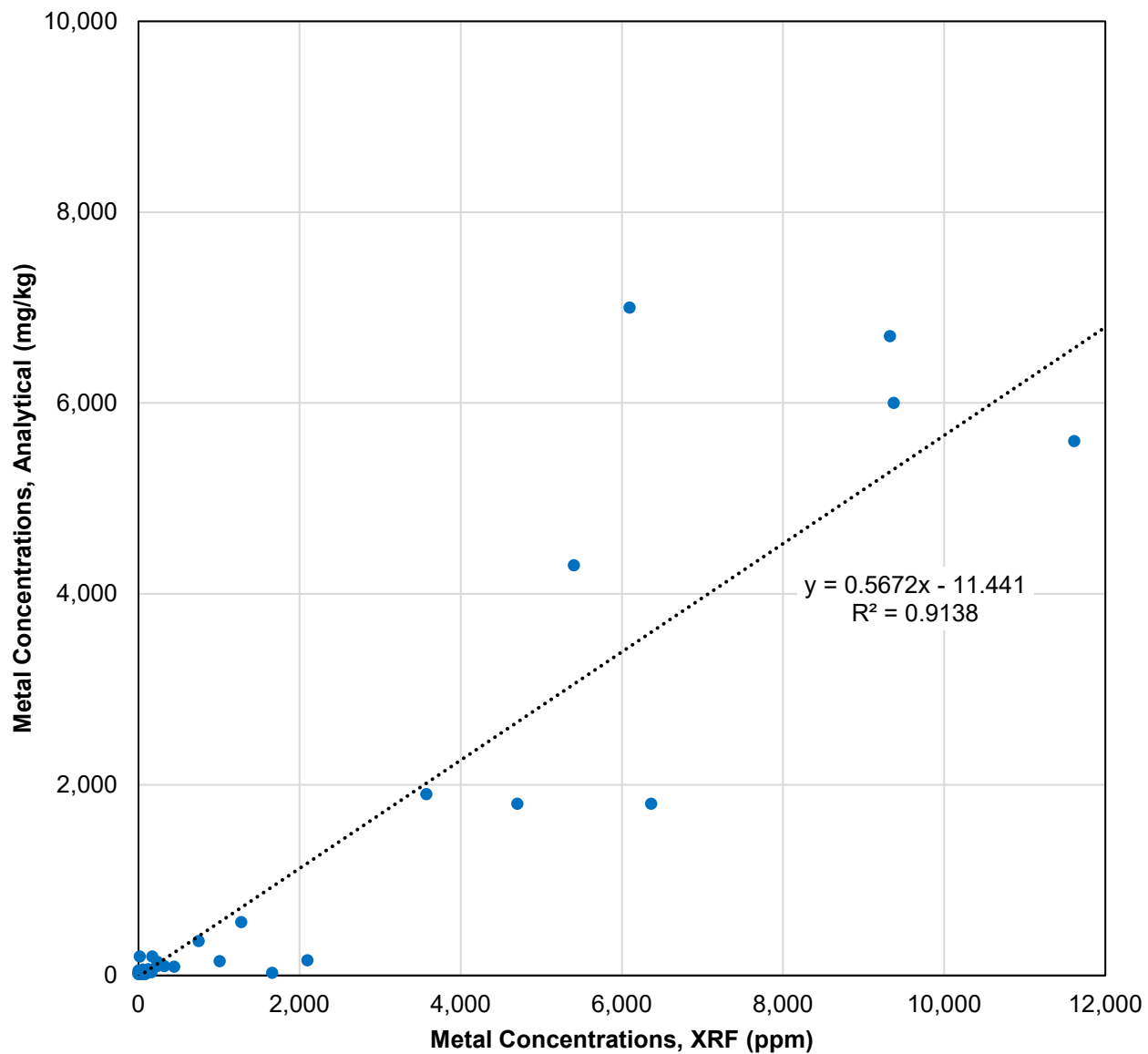


Figure 2
XRF vs. Analytical Results

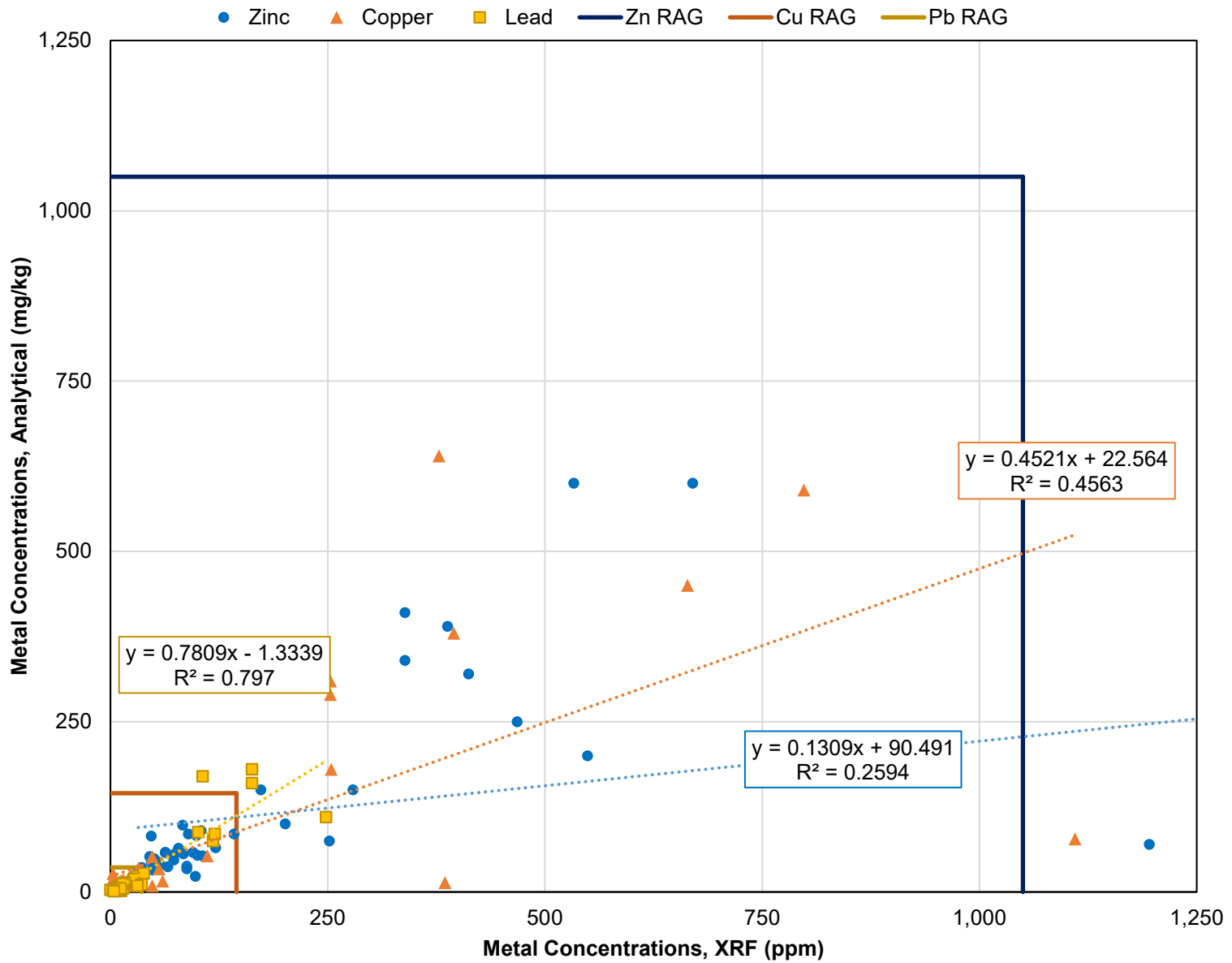


Figure 3
Chromium XRF vs. SW6010B
Concentrations Accurately Predicted Above/Below RAG

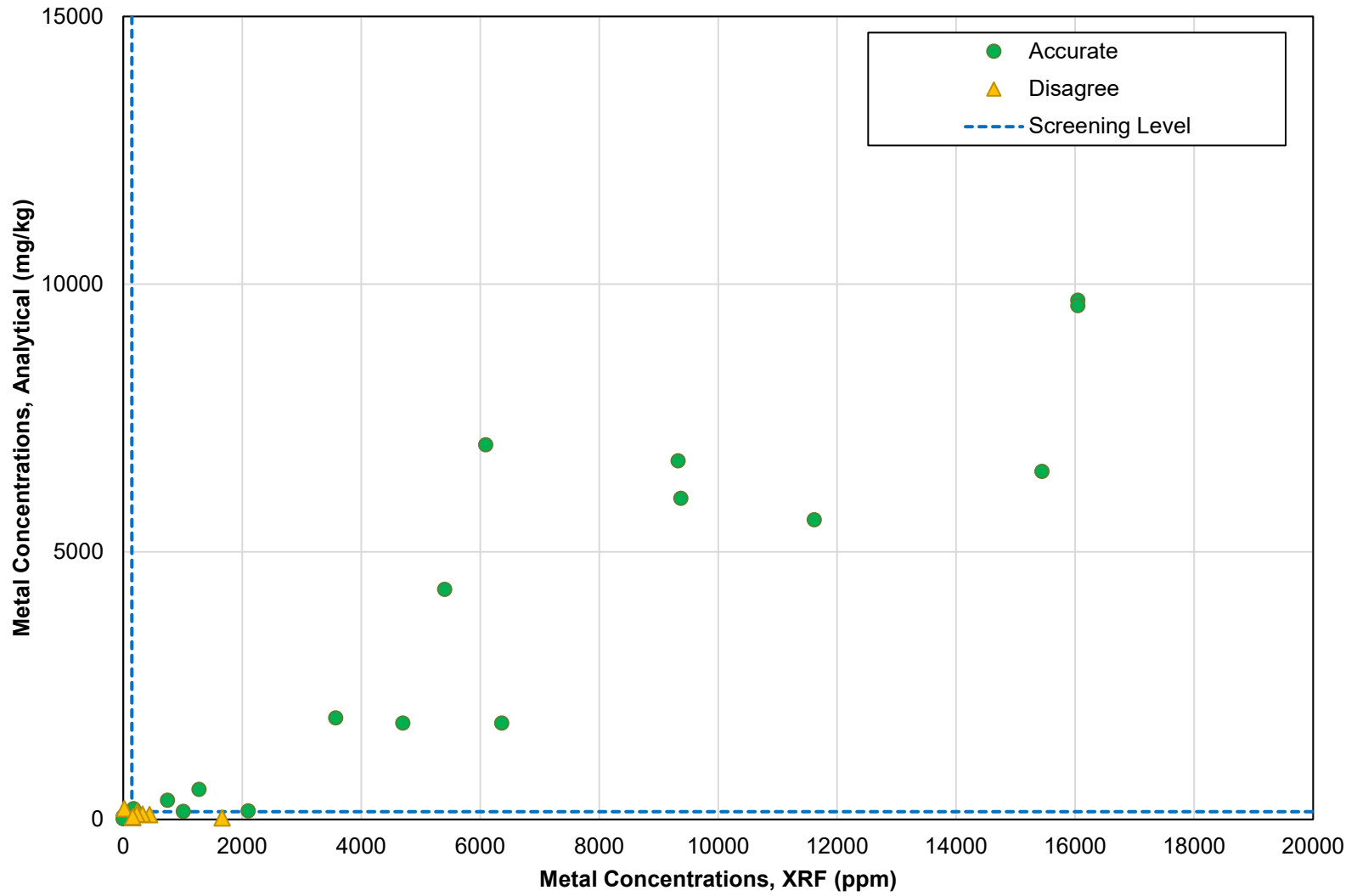


Figure 4
Chromium XRF vs. SW6010B
Concentrations Accurately Predicted Above/Below RAG
Zoomed View

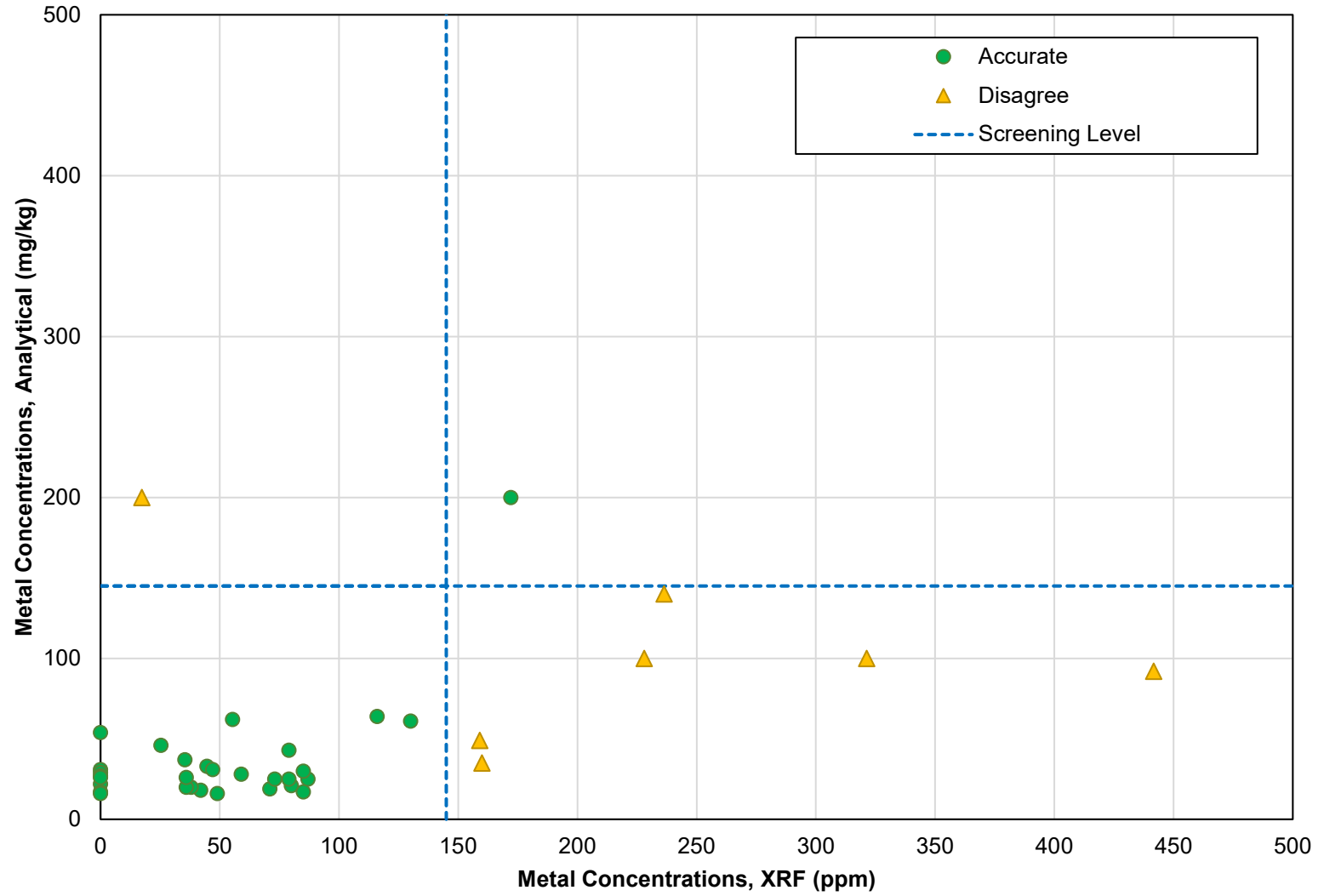


Figure 5
TEQ Concentrations SW4025 vs SW8290

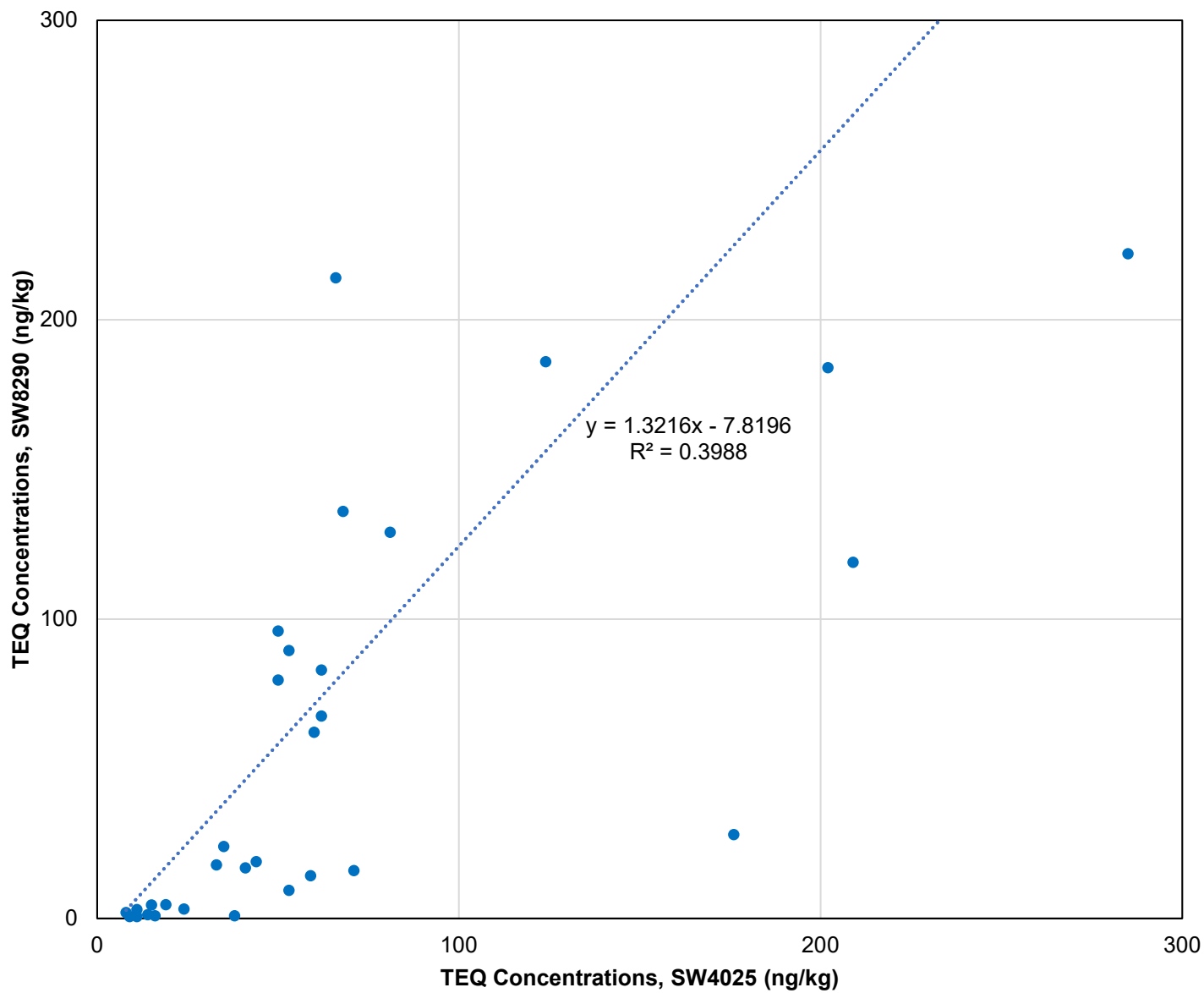
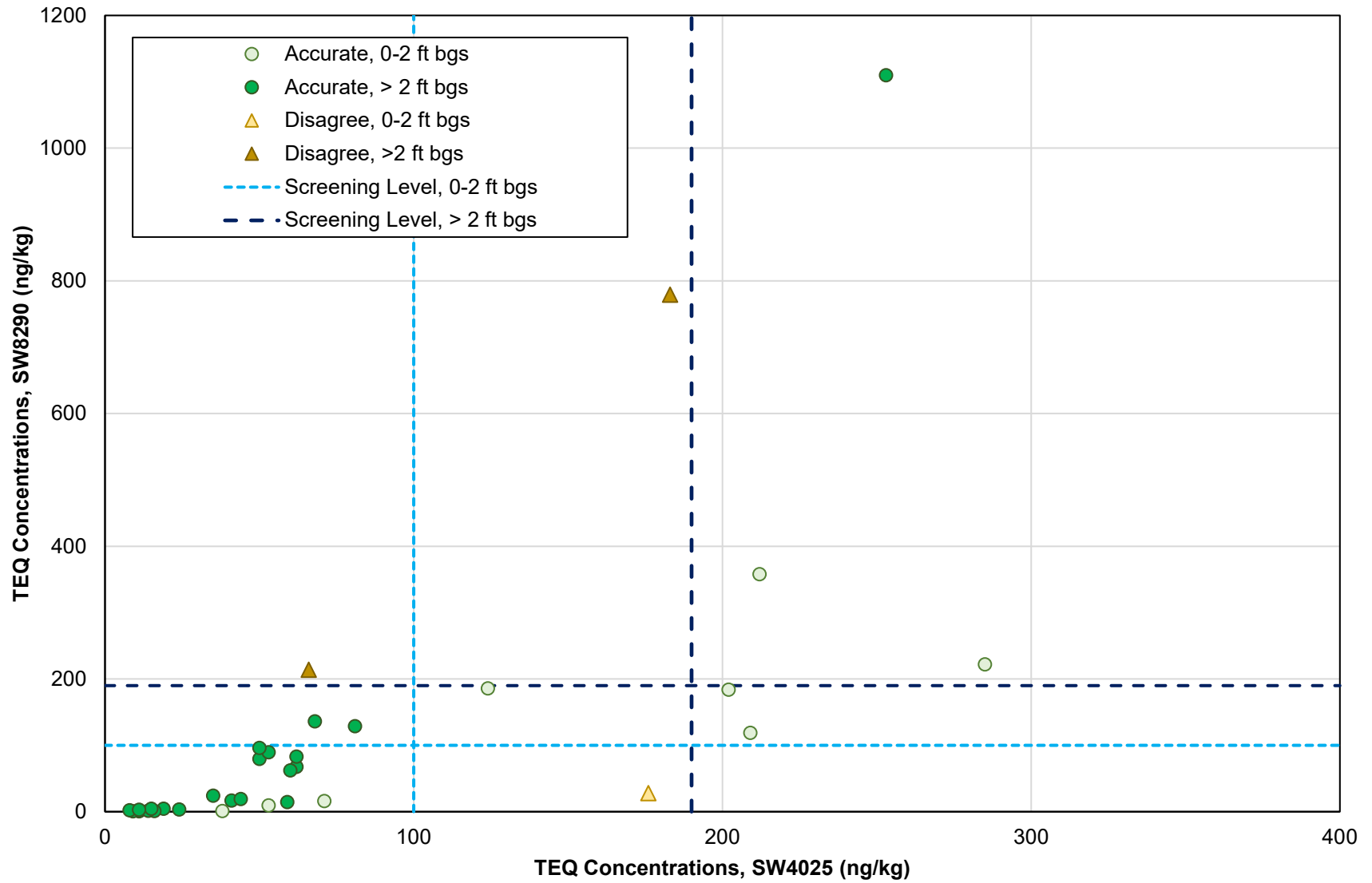


Figure 6
Dioxin/Furans SW4025 vs. SW8290
Concentrations Accurately Predicted Above/Below RAG





**Pacific Gas and Electric
Company**

John Glass, Chromium Remediation Principal
Consultant
300 Lakeside Drive
Oakland CA 94612
(628) 219-4369 (cell)
F2G5@pge.com

August 30, 2023

Veronica Dickerson
US Department of the Interior
4316 Nichols Road
Medina, Ohio 44256

Subject: Soil Non-Time Critical Removal Action Work Plan, Field Change Request:
Mechanical Separation Change, Pacific Gas and Electric Company Topock
Compressor Station, Needles, California

Dear Ms. Dickerson:

This submittal notifies you of a minor revision to the *Final Soil Non-Time Critical Removal Action Work Plan* (NTCRA Work Plan) dated June 2022. Section 2.3.4 of the NTCRA Work Plan states, "Mechanical separation operations will be conducted to separate coarse materials (larger than 3/8-inch diameter) from fine materials (smaller than 3/8-inch diameter)." Pacific Gas and Electric Company (PG&E) requests a field change separating coarse from fine materials based on a particle size of 3/4-inch diameter. Other aspects of the mechanical separation operations will remain the same. Coarse material reuse, which is described in NTCRA Work Plan Section 2.3.5, will also change from reuse of material greater than 3/8-inch diameter to reuse of material greater than 3/4-inch diameter.

Justification:

The selection of 3/8-inch diameter as the break point for coarse and fine materials was proposed in the *Final Soil Engineering Evaluation/Cost Analysis (EE/CA), PG&E Topock Compressor Station, Needles, California* (Final EE/CA). Coarse material greater than 9 millimeters (mm) in diameter (that is, approximately 3/8-inch) is not defined as soil per the Resource Conservation and Recovery Act (RCRA); the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) further defines soil as having particles less than 2 mm. Laboratory analytical methods process soil samples to remove coarse particles greater than 2 mm; as a result, coarse materials are not considered soil, and are not expected to exceed the removal action goals.

Full-scale mechanical separation/soil screening at Topock Compressor Station in Needles, California (site) has been in operation since January 2023. In practice, it is mechanically not feasible to separate coarse from fine materials using 3/8-inch screens. Based on the screening machine output, material that is screened at 3/4-inch and greater is free of fines. To ensure that material destined for reuse as backfill in NTCRA excavations does not contain fines (and therefore the potential for contaminants), the diameter cutoff is proposed at 3/4 inch and larger. Materials passing the 3/4 inch screens will be transported offsite for disposal.

Based on gradation analyses performed on recently screened soil, the change from 3/8-inch to 3/4-inch diameter causes a negligible increase the quantity of material requiring offsite disposal.

In summary, PG&E requests a field change separating coarse from fine materials based on a particle size of 3/4-inch diameter instead of 3/8-inch diameter.

Please call me at (628) 219-4369 if you have any questions regarding this request.

Sincerely,

A handwritten signature in black ink, appearing to read "John Glass", written on a light-colored background.

John Glass
Chromium Remediation Principal

Subject: Re: [EXTERNAL] PG&E Topock NTCRA - Field Change Request - Mechanical Separation Change
Sent: 9/12/2023, 11:02:05 AM
From: Dickerson, Veronica L<veronica_dickerson@ios.doi.gov>
To: Glass, John; Aaron Yue; 'ayue@dtsc.ca.gov'; Baker, Karen@DTSC; 'cguerre@dtsc.ca.gov'; Meyers, Richard J; 'Linda Otero, Fort Mohave'; Nora McDowell (NoraMcDowell@fortmojave.com); 'Leo S. Leonhart, Hargis & Associates'; 'Doug Bonamici'; 'tcraft350c@yahoo.com'; 'Ronald Escobar'; 'chem.waterquality@gmail.com'; 'culturalres@cocopah.com'; Carrie Cannon; Edgardo Castillo; Steven Escobar; cit.enviroassistant@gmail.com; Lyndee Hornell; critthpo@crit-nsn.gov; Bryan Etsitty; pems.edev@cit-nsn.gov; wqtech.epa@cit-nsn.gov; Toni Carlyle; Rena Van Fleet, CRIT; Jill McCormick; Smith, Jeffery B; meggers; prucha; Tony Rossi; Ruben Sanchez; Michael Long; Potor, Augustine P; Dawn Duncan-Hubbs; Amber Warden
Cc: Darcangelo, Jennifer; Bonnett, Kristina; Diaz, David; CH2MHILL EIR Compliance Topock; Sheets, Keith; Reynolds, Michael; Rosenberg, Josh; Hong, Christina

DOI approves the minor revision to the Final Soil Non-Time Critical Removal Action Work Plan (NTCRA Work Plan) dated June 2022. PG&E is requesting a field change separating coarse from fine materials based on a particle size of 3/4-inch diameter instead of 3/8-inch in diameter. Other aspects of the mechanical separation operations will remain the same. Coarse material reuse, which is described in NTCRA Work Plan Section 2.3.5, will also change from reuse of material greater than 3/8-inch diameter to reuse of material greater than 3/4-inch diameter. Justification for the change was provided in the attachment.

Veronica Dickerson
Environmental Compliance and Cleanup Division (ECCD)
Office of Environmental Policy and Compliance (OEPC)
US Department of Interior

440-665-0915

For Department/Bureau Staff:
[Contaminated Sites Initiative \(CSI\) Portal](#)

From: Glass, John <F2G5@pge.com>
Sent: Tuesday, September 5, 2023 11:14 AM
To: Dickerson, Veronica L <veronica_dickerson@ios.doi.gov>; Aaron Yue <Aaron.Yue@dtsc.ca.gov>; 'ayue@dtsc.ca.gov' <'ayue@dtsc.ca.gov'>; Baker, Karen@DTSC <Karen.Baker@dtsc.ca.gov>; 'cguerre@dtsc.ca.gov' <'cguerre@dtsc.ca.gov'>; Meyers, Richard J <richard_meyers@fws.gov>; 'Linda Otero, Fort Mohave' <LindaOtero@fortmojave.com>; Nora McDowell (NoraMcDowell@fortmojave.com) <NoraMcDowell@fortmojave.com>; 'Leo S. Leonhart, Hargis & Associates' <LLeonhart@hargis.com>; 'Doug Bonamici' <dbonamici@critdoj.com>; 'tcraft350c@yahoo.com' <tcraft350c@yahoo.com>; 'Ronald Escobar' <ronetribe@yahoo.com>; 'chem.waterquality@gmail.com' <chem.waterquality@gmail.com>; 'culturalres@cocopah.com' <culturalres@cocopah.com>; Carrie Cannon <calisay17@hotmail.com>; Edgardo Castillo <cocopahtpm@gmail.com>; Steven Escobar <dir.epa@cit-nsn.gov>; cit.enviroassistant@gmail.com <cit.enviroassistant@gmail.com>; Lyndee Hornell <lhornell@ymail.com>; critthpo@crit-nsn.gov <critthpo@crit-nsn.gov>; Bryan Etsitty <bsetsitty@gmail.com>; pems.edev@cit-nsn.gov <pems.edev@cit-nsn.gov>; wqtech.epa@cit-nsn.gov <wqtech.epa@cit-nsn.gov>; Toni Carlyle <toni.carlyle@crit-nsn.gov>; Rena Van Fleet, CRIT <rena.vanfleet@crit-nsn.gov>; Jill McCormick <historicpreservation@quechantribe.com>; Smith, Jeffery B <JefferySmith@usbr.gov>; meggers <meggers@eggerv.com>; prucha <prucha@integratedhydro.com>; Tony Rossi <TROSSI@HARGIS.COM>; Ruben Sanchez <RSanchez@HARGIS.COM>; Michael Long <mlong@HARGIS.COM>; Potor, Augustine P <apotor@blm.gov>; Dawn Duncan-Hubbs <dawn@sunriseconsultation.com>; Amber Warden <awarden@hargis.com>
Cc: Darcangelo, Jennifer <J5D8@pge.com>; Bonnett, Kristina <KABY@pge.com>; Diaz, David <D3D6@pge.com>; CH2MHILL EIR Compliance Topock <EIRComplianceTopock@jacobs.com>; Sheets, Keith <Keith.Sheets@jacobs.com>; Reynolds, Michael <Michael.Reynolds@jacobs.com>; Rosenberg, Josh <Josh.Rosenberg@jacobs.com>; Hong, Christina/LAC <Christina.Hong@jacobs.com>; Glass, John <F2G5@pge.com>
Subject: [EXTERNAL] PG&E Topock NTCRA - Field Change Request - Mechanical Separation Change

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hi Veronica –

The attached submittal notifies you of a minor revision to the Final Soil Non-Time Critical Removal Action Work Plan (NTCRA Work Plan) dated June 2022. PG&E requests a field change separating coarse from fine materials based on a particle size of 3/4-inch diameter instead of 3/8-inch in diameter. Other aspects of the mechanical separation operations will remain the same. Coarse material reuse, which is described in NTCRA Work Plan Section 2.3.5, will also change from reuse of material greater than 3/8-inch diameter to reuse of material greater than 3/4-inch diameter. Justification for the change is provided in the attached. Below are photos that illustrate the difference and the basis for the field change request.

Photo of Material >3/4-inch diameter



Photo of Material >3/8-inch diameter



Please call me at (628) 219-4369 if you have any questions regarding this request.

John Glass
Pacific Gas and Electric Co
Program Manager

C: 628-219-4369

You can read about PG&E's data privacy practices [here](#) or at [PGE.com/privacy](https://www.pge.com/privacy).



**Pacific Gas and Electric
Company**

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Consultant
300 Lakeside Drive
Oakland CA 94612
(628) 219-4369 (cell)
F2G5@pge.com

January 5, 2024

Veronica Dickerson
US Department of the Interior
4316 Nichols Road
Medina, Ohio 44256

Subject: Soil Non-Time Critical Removal Action Work Plan, Field Change Request:
As-Needed Mechanical Separation, Pacific Gas and Electric Company Topock
Compressor Station, Needles, California

Dear Ms. Dickerson:

This submittal provides notification of a revision to the *Final Soil Non-Time Critical Removal Action Work Plan* (Soil NTCRA Work Plan) dated June 2022. The revision is related to the mechanical separation and disposition of excavated soils from Bat Cave Wash (BCW). Section 2.3.4 of the Soil NTCRA Work Plan describes the mechanical separation of excavated soils from BCW into stockpiles of coarse- and fine-grained fractions. Subsequent reuse of the coarse material as backfill in BCW excavations is described in Section 2.3.5. Offsite disposal of the fine-grained material is described in Section 2.3.6.

Pacific Gas and Electric Company (PG&E) requests a field change to continue the mechanical separation of soils removed from BCW only as needed to provide the required quantity of excavation backfill material. Mechanical separation will be terminated, once excavations within BCW are backfilled in accordance with Section 2.3.7 of the Soil NTCRA Work Plan, subsequent Compaction Testing Field Change, and per DOI approval. To reuse as much of the screened material as possible within BCW, PG&E is proposing to use screened material that was not used for backfilling within BCW for restoration material. This screened material will be used to help restore the disturbed habitat and will be placed sporadically at the direction of PG&E biologist. Excavated soil that remains un-separated will be characterized and disposed in accordance with the Soil NTCRA Work Plan.

Justification:

The Soil NTCRA Work Plan describes the excavation and mechanical separation of soils from well-defined Target Action Areas (TAAs) within BCW. The mechanical separation process was expected to yield approximately 50 percent of the required backfill material. The remaining material would be supplemented with approved on-site or import sources. During implementation of the Soil NTCRA the extent of the required excavation increased significantly resulting in changes to the backfill material needs of the project. A few examples are summarized below:

- Groundwater remedy construction of the I-2 pipeline overlapped with NTCRA area SWMU1 TAA1. An excavation was completed along the north and east side of SWMU1 TAA1 to provide a corridor of non-impacted soil for the I-2 pipeline. Nearly 5,000 cubic yards of soil were removed. Due to timing of the excavation, proximity to the proposed pipeline, and overlying access road,

the excavation was backfilled solely with well graded on-site material and not coarse material resulting from mechanical separation.

- Steep slopes to the southeast of SWMU1 TAA1 were excavated to reduce the angle and hazard associated with slope failure. Several hundred cubic yards of soil were removed. However, due to the nature of the slope, no backfill was required.
- As part of the Compaction Testing Field Change request several TAA excavations were acknowledged to warrant the use of only well-graded fill material to ensure proper compaction near critical infrastructure. The use of only well graded material was warranted at:
 - o AOC27 TAA1 (~650 cyds) – Overlying MW-24 Access Road
 - o AOC1 TAA2 (~500 cyds) – Proximity to the active Transwestern gas pipeline
 - o AOC1 TAA1 (~250 cyds) – Proximity to I-40 culverts
 - o SWMU1 TAA1 (~250 cyds) – Overlying BCW Access Road

Unscreened soil from BCW TAAs will be characterized and disposed in accordance with the Soil NTCRA Work Plan.

Please call me at (628) 219-4369 if you have any questions regarding this request.

Sincerely,

A handwritten signature in black ink, appearing to read "John Glass", is written over a light blue rectangular background.

John Glass
Chromium Remediation Principal

From: [Dickerson, Veronica L](#)
To: [Glass, John](#); [Aaron Yue](#); [Baker, Karen@DTSC](#); [Meyers, Richard J](#); "Linda Otero, Fort Mohave"; [Nora McDowell \(NoraMcDowell@fortmojave.com\)](#); "Leo S. Leonhart, Hargis & Associates"; "tcraft350c@yahoo.com"; "Ronald Escobar"; "chem.waterquality@gmail.com"; "culturalres@cocopah.com"; calisay17; [Edgardo Castillo](#); [Steven Escobar](#); [cit.enviroassistant@gmail.com](#); [Lyndee Hornell](#); [critthpo@crit-nsn.gov](#); [Bryan Etsitty](#); [pems.edev@cit-nsn.gov](#); [wqtech.epa@cit-nsn.gov](#); [Toni Carlyle](#); [Jill McCormick](#); [Smith, Jeffery B](#); [meggers](#); [prucha](#); [Tony Rossi](#); [Ruben Sanchez](#); [Michael Long](#); [Potor, Augustine P](#); [Dawn Duncan-Hubbs](#); [Bruce, Bonni D](#); [Amber Warden](#); [ericrosenblum](#); [Walt McNab, Jr.](#); [dbonamici@critdoj.com](#); [rena.vanfleet](#)
Cc: [Bonnett, Kristina](#); [Diaz, David](#); [CH2MHILL EIR Compliance Topock](#); [Sheets, Keith](#); [Reynolds, Michael](#); [Rosenberg, Josh](#); [Hong, Christina](#); [Darcangelo, Jennifer](#)
Subject: Re: [EXTERNAL] PG&E Topock NTCRA - Field Change As-Needed Mechanical Separation of BCW Excavated Material
Date: Friday, January 26, 2024 6:58:29 AM

DOI has reviewed and approves the field change request.

Veronica Dickerson
Environmental Compliance and Cleanup Division (ECCD)
Office of Environmental Policy and Compliance (OEPC)
US Department of Interior

440-665-0915

For Department/Bureau Staff:
[Contaminated Sites Initiative \(CSI\) Portal](#)

From: Glass, John <F2G5@pge.com>
Sent: Friday, January 5, 2024 3:28 PM
To: Dickerson, Veronica L <veronica_dickerson@ios.doi.gov>; Aaron Yue <Aaron.Yue@dtsc.ca.gov>; Baker, Karen@DTSC <Karen.Baker@dtsc.ca.gov>; Meyers, Richard J <richard_meyers@fws.gov>; 'Linda Otero, Fort Mohave' <LindaOtero@fortmojave.com>; Nora McDowell (NoraMcDowell@fortmojave.com) <NoraMcDowell@fortmojave.com>; 'Leo S. Leonhart, Hargis & Associates' <LLeonhart@hargis.com>; tcraft350c@yahoo.com <tcraft350c@yahoo.com>; 'Ronald Escobar' <ronetribe@yahoo.com>; 'chem.waterquality@gmail.com' <chem.waterquality@gmail.com>; 'culturalres@cocopah.com' <culturalres@cocopah.com>; calisay17 <calisay17@hotmail.com>; Edgardo Castillo <cocopahtpm@gmail.com>; Steven Escobar <dir.epa@cit-nsn.gov>; cit.enviroassistant@gmail.com <cit.enviroassistant@gmail.com>; Lyndee Hornell <lhornell@ymail.com>; critthpo@crit-nsn.gov <critthpo@crit-nsn.gov>; Bryan Etsitty <bsetsitty@gmail.com>; pems.edev@cit-nsn.gov <pems.edev@cit-nsn.gov>; wqtech.epa@cit-nsn.gov <wqtech.epa@cit-nsn.gov>; Toni Carlyle <toni.carlyle@crit-nsn.gov>; Jill McCormick <historicpreservation@quechantribe.com>; Smith, Jeffery B <JefferySmith@usbr.gov>; meggers <meggers@eggervenv.com>; prucha <prucha@integratedhydro.com>; Tony Rossi <TROSSI@HARGIS.COM>; Ruben Sanchez <RSanchez@HARGIS.COM>; Michael Long <mlong@HARGIS.COM>; Potor, Augustine P <apotor@blm.gov>; Dawn Duncan-Hubbs <dawn@sunriseconsultation.com>; Bruce, Bonni D <bbruce@blm.gov>; Amber Warden <awarden@hargis.com>; eric rosenblum <ericrosenblum@hotmail.com>; Walt McNab, Jr. <walt.mcnab@gmail.com>; dbonamici@critdoj.com <dbonamici@critdoj.com>; rena.vanfleet <rena.vanfleet@crit-nsn.gov>

Cc: Bonnett, Kristina <KABY@pge.com>; Diaz, David <D3D6@pge.com>; CH2MHILL EIR Compliance Topock <EIRComplianceTopock@jacobs.com>; Sheets, Keith <Keith.Sheets@jacobs.com>; Reynolds, Michael <Michael.Reynolds@jacobs.com>; Rosenberg, Josh <Josh.Rosenberg@jacobs.com>; Hong, Christina/LAC <Christina.Hong@jacobs.com>; Darcangelo, Jennifer <J5D8@pge.com>; Glass, John <F2G5@pge.com>

Subject: [EXTERNAL] PG&E Topock NTCRA - Field Change As-Needed Mechanical Separation of BCW Excavated Material

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hello Veronica,

Please see the attached request for a field change to continue the mechanical separation of soils removed from BCW only to as needed to provide the required quantity of excavation backfill material and amount needed for restoration activities. Excavated soil that remains un-separated will be characterized and disposed in accordance with the Soil NTCRA Work Plan.

Please let me know if you have any questions.

Regards,

John Glass

Pacific Gas and Electric Co

C: 628-219-4369

You can read about PG&E's data privacy practices at [PGE.com/privacy](https://www.pge.com/privacy).



**Pacific Gas and Electric
Company**

John Glass
Program Manager
300 Lakeside Drive
Oakland, CA 94612
(628) 219-4369
F2G5@pge.com

October 25, 2023

Veronica Dickerson
Department of Interior
4316 Nichols Road
Medina, Ohio 44256

Subject: Soil Non-Time Critical Removal Action Work Plan, Backfill Compaction Testing Requirements Field Change, Pacific Gas and Electric Company Topock Compressor Station, Needles, California.

Dear Veronica Dickerson:

This submittal provides notice of the need to make a minor revision to the Final Soil Non-Time Critical Removal Action (NTCRA) Work Plan, dated June 2022. Section 2.3.7 of the Work Plan states, *“Soil used for excavation backfill will be placed in 8-inch-thick loose lifts and compacted to 90% of the maximum dry density in accordance with the Fill and Backfill Specification provided in Appendix G.”* PG&E requests a field change clarifying backfill compaction testing in accordance with Part 3.03B of the Fill and Backfill Specification will only occur in areas near structures or vehicle access routes. Target Action Areas (TAA) warranting compaction testing of backfilled material in applicable portions of the TAA are highlighted in Exhibit 1.

Target Action Areas (or portions thereof) where compaction testing is not warranted will still be moisture conditioned and compacted with heavy equipment, however in-place density and moisture control testing as described in the Part 3.03B of the Fill and Backfill Specification will not be conducted. These areas generally fall into two terrain types: Flat desert wash or steep inaccessible hillside. Compaction testing of backfilled material placed in the bottom of desert washes is not needed as there is no concern for potential settlement. Compaction testing of backfilled material placed on steep hillsides is not practical due to the hazards of testing personnel accessing the steep slopes and not needed due to the lack of nearby structures or vehicle access. Furthermore, much of the backfill material proposed for the steep hillsides will be rip-rap, which cannot be tested.

Additional field changes may be warranted as the project progresses. PG&E reserves the right to discontinue compaction testing in areas that cannot be safely accessed by testing personnel. DOI will be notified of future changes in advance.



Exhibit 1: Target Action Areas

Target Action Area	Terrain Type	Vehicle Access Route Through/ Adjacent	Nearby Structures	Expected Land Use Change	Compaction Testing Warranted
AOC1 TAA1	Flat Desert Wash	No	No	No	Yes
AOC1 TAA2	Flat Desert Wash	Yes	Yes	No	Yes*
AOC9 TAA1	Steep Inaccessible Hillside	No	No	No	No
AOC10 TAA1	Steep Inaccessible Hillside	No	No	No	No
AOC14 TAA1	Highway Shoulder	Yes	No	No	Yes
AOC16 TAA1	Industrial Area	No	Yes	No	Yes
AOC27 TAA1	Hillside	Yes	No	No	Yes
SWMU 1 TAA1	Flat Desert Wash	Yes	No	No	Yes*
SWMU 1 TAA2	Flat Desert Wash and Steep Inaccessible Hillside	No	No	No	No
SWMU 1 TAA3	Steep Inaccessible Hillside	No	No	No	No

***Exceptions**

AOC1 TAA2 – Compaction testing will be conducted of backfilled material placed within 10 feet of the TransWestern gas pipeline.

SWMU1 TAA1 – Compaction testing will be conducted within 10 feet of the BCW access route. Compaction testing will not be conducted in the southeast corner of the TAA due to safety concern of the adjacent steep hillside, which is too tall to be sloped.

Soil NTCRA Work Plan reference language:

2.3.7 Postconstruction Backfill, Cleanup, Site Stabilization, and Erosion Control

Backfill of TAA excavations will be completed upon confirmation that removal actions have met the RAOs. TAA excavations may be backfilled with coarse material resulting from mechanical separation of excavated material or excess site material from other projects at the TCS deemed acceptable for reuse currently staged at the SPY. Coarse materials from mechanical separation will be placed in the bottom of TAA excavations. Excess site soil will be used to complete the TAA excavations up to the original surface grade and in locations where well-graded soils will be beneficial to meet compaction and slope stability requirements. Soil used for excavation backfill will be placed in 8-inch-thick loose lifts and compacted to 90% of the maximum dry density in accordance with the Fill and Backfill Specification provided in Appendix G.

Please call me at (628) 219-4369 if you have any questions regarding this report.

Sincerely,

John Glass

From: [Dickerson, Veronica L](#)
To: [Glass, John](#); [Aaron Yue](#); "[ayue@dtsc.ca.gov](#)"; [Baker, Karen@DTSC](#); "[cguerre@dtsc.ca.gov](#)"; [Meyers, Richard J](#); "[Linda Otero, Fort Mohave](#)"; [Nora McDowell \(NoraMcDowell@fortmojave.com\)](#); "[Leo S. Leonhart, Hargis & Associates](#)"; "[Doug Bonamici](#)"; "[tcraft350c@yahoo.com](#)"; "[Ronald Escobar](#)"; "[chem.waterquality@gmail.com](#)"; "[culturalres@cocopah.com](#)"; [calisay17](#); [Edgardo Castillo](#); [Steven Escobar](#); [cit.enviroassistant@gmail.com](#); [Lyndee Hornell](#); [critthpo@crit-nsn.gov](#); [Bryan Etsitty](#); [pems.edev@cit-nsn.gov](#); [wqtech.epa@cit-nsn.gov](#); [Toni Carlyle](#); [Rena Van Fleet, CRIT](#); [Jill McCormick](#); [Smith, Jeffery B](#); [meggers](#); [prucha](#); [Tony Rossi](#); [Ruben Sanchez](#); [Michael Long](#); [Potor, Augustine P](#); [Dawn Duncan-Hubbs](#); [Bruce, Bonni D](#); [Amber Warden](#); [ericrosenblum](#); [Walt McNab, Jr.](#); [Darcangelo, Jennifer](#); [Bonnett, Kristina](#); [Diaz, David](#); [CH2MHILL EIR Compliance Topock](#); [Sheets, Keith](#); [Reynolds, Michael](#); [Rosenberg, Josh](#); [Hong, Christina](#)
Cc: [Darcangelo, Jennifer](#); [Bonnett, Kristina](#); [Diaz, David](#); [CH2MHILL EIR Compliance Topock](#); [Sheets, Keith](#); [Reynolds, Michael](#); [Rosenberg, Josh](#); [Hong, Christina](#)
Subject: Re: [EXTERNAL] PG&E Topock NTCRA - Request for approval NTCRA Workplan Field Change - Compaction Testing
Date: Monday, November 6, 2023 9:35:46 AM

DOI has reviewed the request for the NTCRA Workplan Field Change as outlined in the letter and briefed in the email - DOI approves the request.

Veronica Dickerson
Environmental Compliance and Cleanup Division (ECCD)
Office of Environmental Policy and Compliance (OEPC)
US Department of Interior

440-665-0915

For Department/Bureau Staff:
[Contaminated Sites Initiative \(CSI\) Portal](#)

From: Glass, John <F2G5@pge.com>
Sent: Sunday, November 5, 2023 11:56 PM
To: Dickerson, Veronica L <veronica_dickerson@ios.doi.gov>; Aaron Yue <Aaron.Yue@dtsc.ca.gov>; 'ayue@dtsc.ca.gov' <'ayue@dtsc.ca.gov'>; Baker, Karen@DTSC <Karen.Baker@dtsc.ca.gov>; 'cguerre@dtsc.ca.gov' <'cguerre@dtsc.ca.gov'>; Meyers, Richard J <richard_meyers@fws.gov>; 'Linda Otero, Fort Mohave' <LindaOtero@fortmojave.com>; Nora McDowell (NoraMcDowell@fortmojave.com) <NoraMcDowell@fortmojave.com>; 'Leo S. Leonhart, Hargis & Associates' <LLeonhart@hargis.com>; 'Doug Bonamici' <dbonamici@critdoj.com>; 'tcraft350c@yahoo.com' <tcraft350c@yahoo.com>; 'Ronald Escobar' <ronetribes@yahoo.com>; 'chem.waterquality@gmail.com' <chem.waterquality@gmail.com>; 'culturalres@cocopah.com' <culturalres@cocopah.com>; calisay17 <calisay17@hotmail.com>; Edgardo Castillo <cocopahtpm@gmail.com>; Steven Escobar <dir.epa@cit-nsn.gov>; cit.enviroassistant@gmail.com <cit.enviroassistant@gmail.com>; Lyndee Hornell <lhornell@ymail.com>; critthpo@crit-nsn.gov <critthpo@crit-nsn.gov>; Bryan Etsitty <bsetsitty@gmail.com>; pems.edev@cit-nsn.gov <pems.edev@cit-nsn.gov>; wqtech.epa@cit-nsn.gov <wqtech.epa@cit-nsn.gov>; Toni Carlyle <toni.carlyle@crit-nsn.gov>; Rena Van Fleet, CRIT <rena.vanfleet@crit-nsn.gov>; Jill McCormick <historicpreservation@quechantribe.com>; Smith, Jeffery B <JefferySmith@usbr.gov>; meggers <meggers@eggerv.com>; prucha <prucha@integratedhydro.com>; Tony Rossi <TROSSI@HARGIS.COM>; Ruben Sanchez <RSanchez@HARGIS.COM>; Michael Long <mlong@HARGIS.COM>; Potor, Augustine P <apotor@blm.gov>; Dawn Duncan-Hubbs <dawn@sunriseconsultation.com>; Bruce, Bonni D <bbruce@blm.gov>; Amber Warden

<awarden@hargis.com>; eric rosenblum <ericrosenblum@hotmail.com>; Walt McNab, Jr.
<walt.mcnab@gmail.com>

Cc: Darcangelo, Jennifer <J5D8@pge.com>; Bonnett, Kristina <KABY@pge.com>; Diaz, David
<D3D6@pge.com>; CH2MHILL EIR Compliance Topock <EIRComplianceTopock@jacobs.com>;
Sheets, Keith <Keith.Sheets@jacobs.com>; Reynolds, Michael <Michael.Reynolds@jacobs.com>;
Rosenberg, Josh <Josh.Rosenberg@jacobs.com>; Hong, Christina/LAC
<Christina.Hong@jacobs.com>; Glass, John <F2G5@pge.com>

Subject: [EXTERNAL] PG&E Topock NTCRA - Request for approval NTCRA Workplan Field Change -
Compaction Testing

**This email has been received from outside of DOI - Use caution before clicking on
links, opening attachments, or responding.**

Classification: Public

Hello Veronica,

PG&E is requesting approval for a NTCRA Workplan field change (attached) pertaining to the compaction testing during backfilling and compaction on slopes and flat desert wash (not close to roads and infrastructure). During the course of completing NTCRA there has been a few changes in conditions which warrant this proposed field change:

- Excavations within BCW have required several step outs creating a larger excavations that were adjacent to and/or beneath infrastructure like pipelines and roads;
- Material on slopes have been softer then anticipated, resulting in placement of riprap material on slopes to protect the slopes from future erosion;
- Size of reuse screened material from BCW from 3/8 inch plus to ¾ inch plus. With the sorted material from BCW the ¾ plus gravel will be near impossible to get 90% compaction.

Within BCW as indicated in the field change request attached well grade aggregate base (AB) will be used on road replacements and near infrastructure and BCW screened material will be placed on the bottom of the excavation outside those areas and completed to surface grade with AB material. The AB material will be sourced from Campbell's quarry in Lake Havasu, Arizona. Rip-Rap material will be used on sleep slopes like AOC10 TAA1, AOC9 TAA1 and SWMU1 TAA2. Riprap will be sourced from McCrossen Cedar Hills quarry, Kingman, Arizona. This approach was reviewed by geotechnical engineer from Jacobs.

Please let me know if you have any questions.

Regards,

John Glass

Pacific Gas and Electric Co
Program Manager

C: 628-219-4369

You can read about PG&E's data privacy practices at [PGE.com/privacy](https://www.pge.com/privacy).

From: [Glass, John](#)
To: [Nora McDowell \(NoraMcDowell@fortmojave.com\)](#); ["Leo S. Leonhart, Hargis & Associates"](#); ["Doug Bonamici"](#); ["tcraft350c@yahoo.com"](#); ["Ronald Escobar"](#); ["chem.waterquality@gmail.com"](#); ["culturalres@cocopah.com"](#); [Carrie Cannon](#); [Edgardo Castillo](#); [Steven Escobar](#); [cit.enviroassistant@gmail.com](#); [Lyndee Hornell](#); [critthpo@crit-nsn.gov](#); [Bryan Etsity](#); [pems.edev@cit-nsn.gov](#); [wgtech.epa@cit-nsn.gov](#); [Toni Carlyle](#); [Rena Van Fleet, CRIT](#); [Jill McCormick](#); [Smith, Jeffery B](#); [meggers](#); [prucha](#); [Tony Rossi](#); [Ruben Sanchez](#); [Michael Long](#); [Potor, Augustine P](#); [Dawn Duncan-Hubbs](#)
Cc: [Darcangelo, Jennifer](#); [Bonnert, Kristina](#); [Diaz, David](#); [CH2MHILL EIR Compliance Topock](#); [Sheets, Keith](#); [Reynolds, Michael](#); [Rosenberg, Josh](#); [Hong, Christina](#); [Glass, John](#)
Subject: [EXTERNAL] Topock NTCRA: AOC9-1 and AOC10-1 Slope Stabilization Plan
Date: Tuesday, October 3, 2023 1:33:18 PM
Attachments: [NTCRA_AOC10-1_RipRap.pdf](#)
[RG80NC_Class_8_Data_Sheet_NTPEP_09082021.pdf](#)

Classification: Public

Hi Veronica,

This communication is to inform the DOI that removal of contaminated soil from AOC9-1 and AOC10-1 is nearing completion. Backfill and site stabilization of the TAAs will follow. In accordance with Section 2.3.7 of the Soil NTCRA Work Plan, additional slope stability considerations are warranted for the steeply sloped portions of AOC9-1 and AOC10-1. Additionally, Sections 3.1.7 and 3.1.8 (AOC9-1 and AOC10-1, respectively) of the Soil NTCRA Work Plan state, *"Postconstruction site stabilization and erosion control of this TAA will require additional efforts to maintain slope stability. Backfill of the TAA excavation will be completed with well-graded soil to within approximately 1 to 2 feet of the existing site grade. The remaining excavation surface will be backfilled with riprap or similar material to provide erosion control."* Due to the steep dry sandy unconsolidated nature of the hillsides, the placement of well-graded soil prior to the placement of rip rap is impractical and will do little to improve erosion control. Therefore, rip rap alone is proposed to backfill the steeply sloped portions of the TAAs. The attached figure shows the layout of the Slope Stabilization Plan. The following details for backfill of the steep slopes at AOC9-1 and AOC10-1 have been developed based on recommendations provided in Chapter 870 (Bank Protection – Erosion Control) of the Caltrans Highway Design Manual (2022):

1. A geotextile fabric is proposed to be placed on excavation bottom prior to the placement of rip rap. Specifications for the proposed geotextile are attached. If PG&E opposes the placement of the artificial material on the hillside, it should be noted that the geotextile is proposed to reduce riprap settlement, increasing the longevity of the erosion control measure.
2. Large boulders will be placed at the toe of the slope and keyed into the existing soil. If keying is not practical, a mound of rock should be placed at the toe. The thickness of this layer should be 1.5 times the median dimension of the boulders, per the Caltrans Highway Design Manual (2022).
3. Rip rap, specified as McCrossan quarry 4-8 inch "Aztec rock", sourced from Kingman, Arizona, will be mounded on the larger boulders, which will provide support for rip rap placed on the slope above.
4. An approximately 18-inch thick layer of rip rap will be placed along the slope. The thickness of the layer is 1.5 times the median rock dimension (6-inches), per the Caltrans Highway Design Manual (2022). If possible, a mounded section of riprap should also be placed below the outlet of the storm drain that emanates from the parking lot above AOC10-1.
5. Placement of material will primarily be via excavator bucket from the bottom of the slope. Though placement of material on the top portion of the slope will also be conducted and accessed from the TSC visitor parking area. AOC9-1 will only be accessed from the bottom of the slope.
6. Flat areas of the TAAs requiring backfill, particularly the western edge of the AOC10-1 along the TCS fence line and the area southeast of the AOC10-1 TAA boundary, will be backfilled with aggregate base material from Campbell's quarry near Lake Havasu, Arizona.

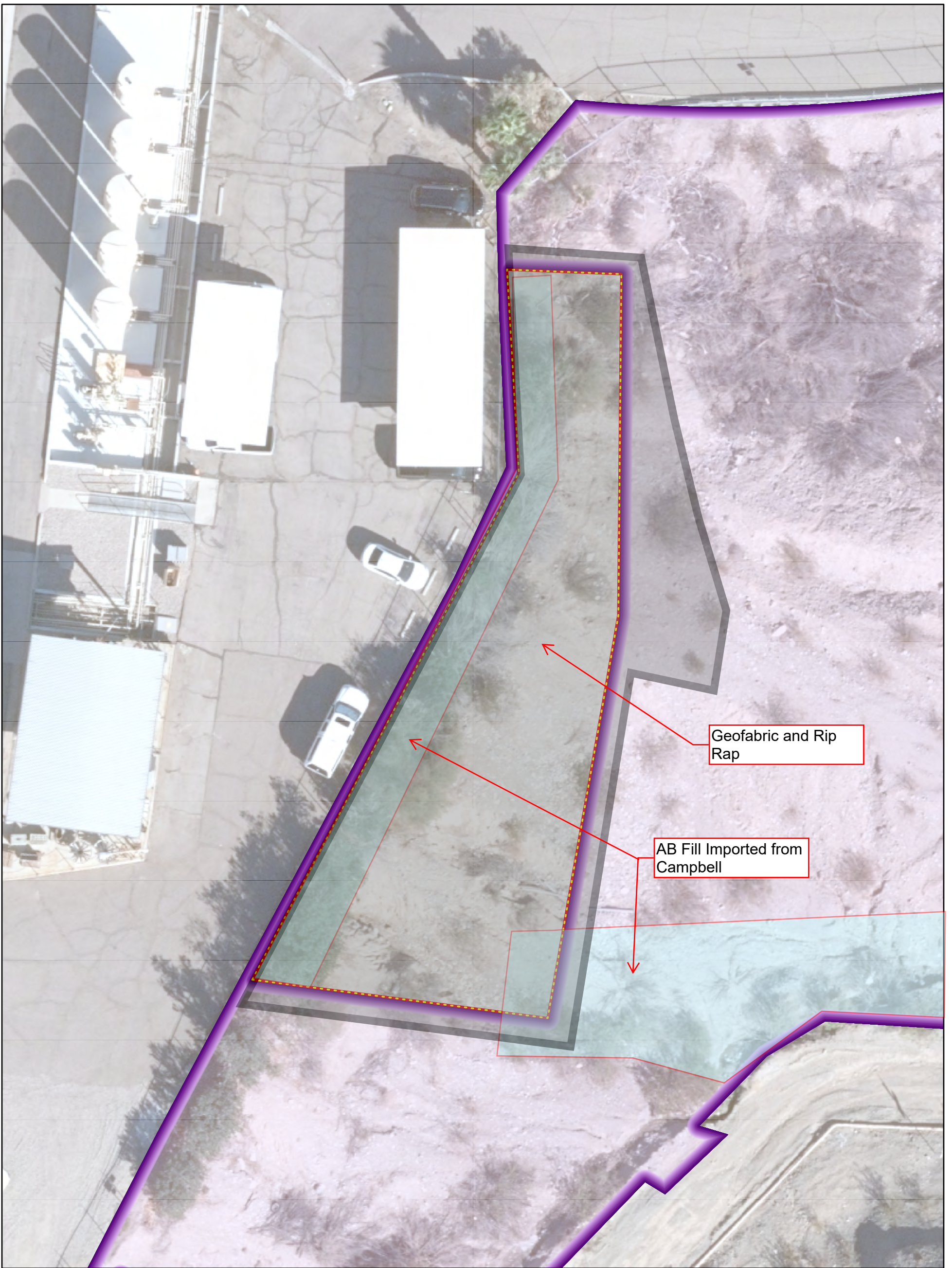
Regards,



John Glass

Pacific Gas and Electric Co
Program Manager

C: 628-219-4369

You can read about PG&E's data privacy practices [here](#) or at [PGE.com/privacy](https://www.pge.com/privacy).



-  Target Action Area
-  NTCRA Work Area

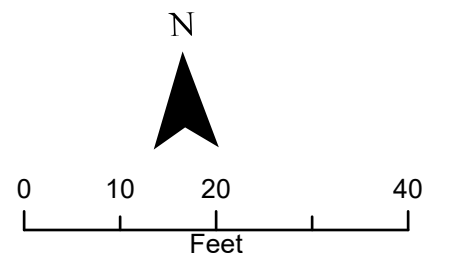
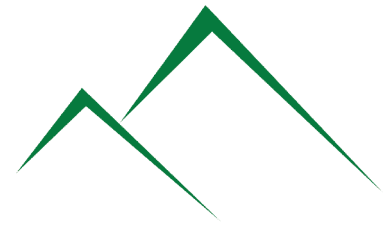


Figure 17
AOC 10 - TAA 1
 PG&E Topock Compressor Station,
 Needles, California



REED & GRAHAM
G E O S Y N T H E T I C S

RG80NC Nonwoven Geotextile for Rock Slope Protection Class 8 Certification

Reed & Graham's RG80NC is a nonwoven geotextile composed of polypropylene fibers, which are formed into a stable network such that the fibers retain their relative position. RG80NC is inert to biological degradation and resists naturally encountered chemicals, alkalis and acids. **RG80NC meets the 2018 California Department of Transportation Specifications Section 96-1.02I for Rock Slope Protection Fabric, Class 8, nonwoven geotextile.**

NTPEP Datamine Information: RG80NC is a tracking model number for the following manufacturers products: Mirafi 180NC, SKAPS GE180/GT180C or Propex Geotex 861. Manufacturers information can be found at: <http://data.ntpep.org/>

Mechanical Properties	Test Method	Unit	Minimum Value
Grab Tensile Strength, Grab breaking load, lb 1-inch grip;, min in each direction	ASTM D 4632	Lbs	205
Grab Tensile Elongation, Apparent elongation, percent min., in each direction	ASTM D 4632	%	50
Permittivity, sec ⁻¹ , inimum	ASTM D 4491	Sec ⁻¹	1.0
Apparent opening size, U.S. Standard sieve size minimum and maximum ¹	ASTM D-4751	Sieve size	80
Ultraviolet resistance, percent minimum retained grab breaking load, 500 hr.	ASTM D-4355	% retained strength	70

¹ASTM D 4751. AOS is a Maximum Opening Diameter Value.

Physical Properties	Test Method	Unit	Value ¹
Weight	ASTM D 5261	oz/yd ²	7.5
Roll Dimension (width x length)		Ft	15' x 300', 12.5'x360'
Roll Area		yd ²	500
Estimated Roll Weight		lb	255

¹All values in this table are Minimum Average Roll Values.

Disclaimer: Reed & Graham assumes no liability for the accuracy or completeness of this information or for the ultimate use by the purchaser. Reed & Graham disclaims any and all express, implied, or statutory standards, warranties or guarantees, including without limitation any implied warranty as to merchantability or fitness for a particular purpose or arising from a course of dealing or usage of trade as to any equipment, materials, or information furnished herewith. This document should not be construed as engineering advice.

Updated September 8, 2021

www.rginc.com/geo

Toll Free Phone: 888.381.0800

Subject: Re: [EXTERNAL] RE: PG&E Topock Soil NTCRA - Request DOI's Approval AOC9-1 Backfill Request
Sent: 10/10/2023, 2:10:27 PM
From: Dickerson, Veronica L <veronica_dickerson@ios.doi.gov>
To: Glass, John; Aaron Yue; 'ayue@dtsc.ca.gov'; Baker, Karen@DTSC; 'cguerre@dtsc.ca.gov'; Meyers, Richard J; 'Linda Otero, Fort Mohave'; Nora McDowell (NoraMcDowell@fortmojave.com); 'Leo S. Leonhart, Hargis & Associates'; 'Doug Bonamici'; 'tcraft350c@yahoo.com'; 'Ronald Escobar'; 'chem.waterquality@gmail.com'; 'culturalres@cocopah.com'; calisay17; Edgardo Castillo; Steven Escobar; cit.enviroassistant@gmail.com; Lyndee Hornell; critthpo@crit-nsn.gov; Bryan Etsitty; pems.edev@cit-nsn.gov; wqtech.epa@cit-nsn.gov; Toni Carlyle; Rena Van Fleet, CRIT; Jill McCormick; Smith, Jeffery B; meggers; prucha; Tony Rossi; Ruben Sanchez; Michael Long; Potor, Augustine P; Dawn Duncan-Hubbs; Bruce, Bonni D; Amber Warden
Cc: Darcangelo, Jennifer; Bonnett, Kristina; Diaz, David; CH2MHILL EIR Compliance Topock; Sheets, Keith; Reynolds, Michael; Rosenberg, Josh; Hong, Christina

DOI approves the backfill request for AOC9-1. Backfill will be conducted in accordance with the Slope Stabilization Plan provided to stakeholders on October 3, 2023.

PG&E must ensure the following stipulations are followed.

Tribal monitors and A&E archaeologists will be on site to view the aggregate materials from both Airport and Cedar Hills quarries as it is dispersed from the trucks.

Quarry sources for the NTCRA backfills will be noted so that a record of which quarry sources are used at specific locations can be tracked.

Veronica Dickerson
Environmental Compliance and Cleanup Division (ECCD)
Office of Environmental Policy and Compliance (OEPC)
US Department of Interior

440-665-0915

For Department/Bureau Staff:
[Contaminated Sites Initiative \(CSI\) Portal](#)

From: Glass, John <F2G5@pge.com>
Sent: Tuesday, October 10, 2023 12:41 PM
To: Dickerson, Veronica L <veronica_dickerson@ios.doi.gov>; Aaron Yue <Aaron.Yue@dtsc.ca.gov>; 'ayue@dtsc.ca.gov' <'ayue@dtsc.ca.gov'>; Baker, Karen@DTSC <Karen.Baker@dtsc.ca.gov>; 'cguerre@dtsc.ca.gov' <'cguerre@dtsc.ca.gov'>; Meyers, Richard J <richard_meyers@fws.gov>; 'Linda Otero, Fort Mohave' <LindaOtero@fortmojave.com>; Nora McDowell (NoraMcDowell@fortmojave.com) <NoraMcDowell@fortmojave.com>; 'Leo S. Leonhart, Hargis & Associates' <LLeonhart@hargis.com>; 'Doug Bonamici' <dbonamici@critdoj.com>; 'tcraft350c@yahoo.com' <tcraft350c@yahoo.com>; 'Ronald Escobar' <ronetribe@yahoo.com>; 'chem.waterquality@gmail.com' <chem.waterquality@gmail.com>; 'culturalres@cocopah.com' <culturalres@cocopah.com>; calisay17 <calisay17@hotmail.com>; Edgardo Castillo <cocopahtpm@gmail.com>; Steven Escobar <dir.epa@cit-nsn.gov>; cit.enviroassistant@gmail.com <cit.enviroassistant@gmail.com>; Lyndee Hornell <hornell@ymail.com>; critthpo@crit-nsn.gov <critthpo@crit-nsn.gov>; Bryan Etsitty <bsetsitty@gmail.com>; pems.edev@cit-nsn.gov <pems.edev@cit-nsn.gov>; wqtech.epa@cit-nsn.gov <wqtech.epa@cit-nsn.gov>; Toni Carlyle <toni.carlyle@crit-nsn.gov>; Rena Van Fleet, CRIT <rena.vanfleet@crit-nsn.gov>; Jill McCormick <historicpreservation@quechantribe.com>; Smith, Jeffery B <JefferySmith@usbr.gov>; meggers <megggers@eggervenv.com>; prucha <prucha@integratedhydro.com>; Tony Rossi <TROSSI@HARGIS.COM>; Ruben Sanchez <RSanchez@HARGIS.COM>; Michael Long <mlong@HARGIS.COM>; Potor, Augustine P <apotor@blm.gov>; Dawn Duncan-Hubbs <dawn@sunriseconsultation.com>; Bruce, Bonni D <bbruce@blm.gov>; Amber Warden <awarden@hargis.com>
Cc: Darcangelo, Jennifer <J5D8@pge.com>; Bonnett, Kristina <KABY@pge.com>; Diaz, David <D3D6@pge.com>; CH2MHILL EIR Compliance Topock <EIRComplianceTopock@jacobs.com>; Sheets, Keith <Keith.Sheets@jacobs.com>; Reynolds, Michael <Michael.Reynolds@jacobs.com>; Rosenberg, Josh <Josh.Rosenberg@jacobs.com>; Hong, Christina/LAC <Christina.Hong@jacobs.com>
Subject: [EXTERNAL] RE: PG&E Topock Soil NTCRA - Request DOI's Approval AOC9-1 Backfill Request

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hello Veronica,

Clarifying the backfill material purposed location AOC9 TAA1. Per the slope stabilization plan PG&E will use material from one quarry and available boulders from the Boulders stockpile in the SPY:

- Rip rap 4-8 inch "Aztec rock" from McCrossen Cedar Hills quarry, sourced from Kingman, Arizona

McCrosen Cedar Hills quarry was approved on 10/6/2023 by the BLM with concurrence from the DOI on 10/10/2023.

An observation location will be made available outside of the exclusion zone for tribal monitors and A&E archaeologists to view the aggregate materials from Cedar Hills quarries as it is dispersed from the trucks.

No additional information from the request made on 10/6/2023.

Backfill operations will begin upon receipt of DOI's approval.

Regards,

John Glass

Pacific Gas and Electric Co
Program Manager

C: 628-219-4369

From: Glass, John <F2G5@pge.com>

Sent: Friday, October 6, 2023 3:01 PM

To: Dickerson, Veronica L <veronica_dickerson@ios.doi.gov>; Aaron Yue <Aaron.Yue@dtsc.ca.gov>; 'ayue@dtsc.ca.gov'; Baker, Karen@DTSC <Karen.Baker@dtsc.ca.gov>; 'cguerre@dtsc.ca.gov'; Meyers, Richard J <richard_meyers@fws.gov>; 'Linda Otero, Fort Mohave' <LindaOtero@fortmojave.com>; Nora McDowell (NoraMcDowell@fortmojave.com) <NoraMcDowell@fortmojave.com>; 'Leo S. Leonhart, Hargis & Associates' <LLeonhart@hargis.com>; 'Doug Bonamici' <dbonamici@critdoj.com>; 'tcraft350c@yahoo.com' <tcraft350c@yahoo.com>; 'Ronald Escobar' <ronetribe@yahoo.com>; 'chem.waterquality@gmail.com' <chem.waterquality@gmail.com>; 'culturalres@cocopah.com' <culturalres@cocopah.com>; Carrie Cannon <calisay17@hotmail.com>; Edgardo Castillo <cocopahtpm@gmail.com>; Steven Escobar <dir.epa@cit-nsn.gov>; cit.enviroassistant@gmail.com; Lyndee Hornell <lhornell@ymail.com>; critthpo@crit-nsn.gov; Bryan Etsitty <bsetsitty@gmail.com>; pems.edev@cit-nsn.gov; wqtech.epa@cit-nsn.gov; Toni Carlyle <toni.carlyle@crit-nsn.gov>; Rena Van Fleet, CRIT <rena.vanfleet@crit-nsn.gov>; Jill McCormick <historicpreservation@quechantribe.com>; Smith, Jeffery B <JefferySmith@usbr.gov>; meggers <meggers@eggervenv.com>; prucha <prucha@integratedhydro.com>; Tony Rossi <TROSSI@HARGIS.COM>; Ruben Sanchez <RSanchez@HARGIS.COM>; Michael Long <mlong@HARGIS.COM>; Potor, Augustine P <apotor@blm.gov>; Dawn Duncan-Hubbs <dawn@sunriseconsultation.com>
Cc: Darcangelo, Jennifer <J5D8@pge.com>; Bonnett, Kristina <KABY@pge.com>; Diaz, David <D3D6@pge.com>; CH2MHILL EIR Compliance Topock <EIRComplianceTopock@jacobs.com>; Sheets, Keith <Keith.Sheets@jacobs.com>; Reynolds, Michael <Michael.Reynolds@jacobs.com>; Rosenberg, Josh <Josh.Rosenberg@jacobs.com>; Hong, Christina/LAC <Christina.Hong@jacobs.com>; Glass, John <F2G5@pge.com>

Subject: PG&E Topock Soil NTCRA - Request DOI's Approval AOC9-1 Backfill Request

Hello Veronica,

Soil NTCRA excavation including approved step-outs of AOC9 TAA1 were completed in September 2023. The excavation removed contaminated soil in accordance with remedial action objective (RAO) 1 and 2 to a depth of approximately 3 feet bgs. Orange and white stained soils were observed at various depths throughout the TAA. Analytical result from stained soil indicate chromium and dioxins concentrations exceeding the NTCRA Removal Action Goal (RAGs). See attached data table for soil sample results. Confirmation soil sampling from the sidewalls and floor of the excavation indicate contamination exceeding the numerical RAGs has been removed. It should be noted that step-out Sample AOC9TAA1-CW2a-1 has an estimated dioxin concentration of 100 ng/kg. While the value is

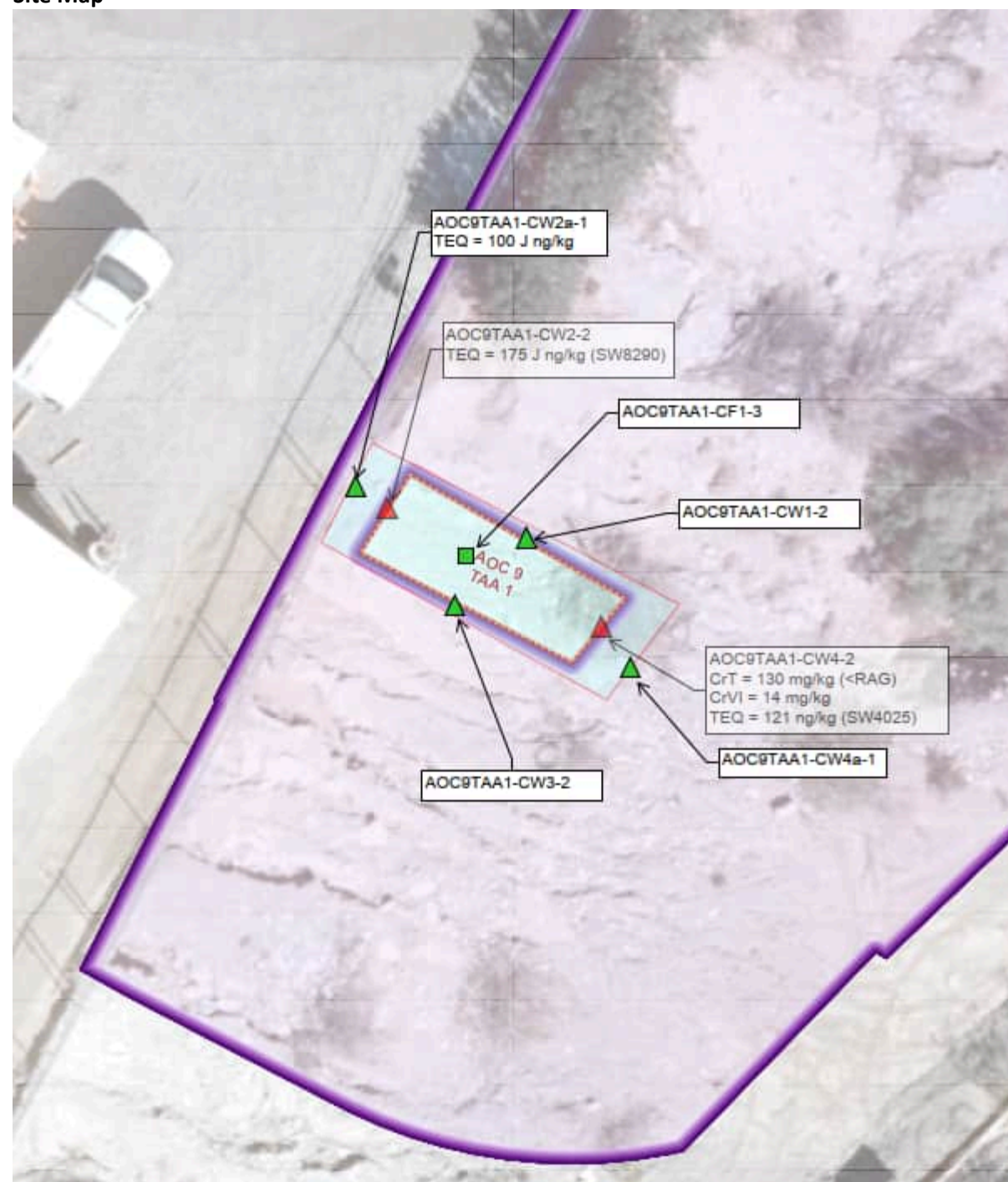
estimated, it does not exceed the 0-2 ft dioxin RAG of 100 ng/kg. Furthermore, additional excavation at this location is not planned as excavation into the TCS is not within the scope of the NTCRA.

Next Steps

The excavation at AOC9 TAA1 is ready for backfill. Backfill will be conducted in accordance with the Slope Stabilization Plan provided to stakeholders on October 3, 2023 (See attached).

Backfill operations will begin upon receipt of DOI's approval.

Site Map



Regards,

John Glass

Pacific Gas and Electric Co
Program Manager

C: 628-219-4369

You can read about PG&E's data privacy practices at [PGE.com/privacy](https://www.pge.com/privacy).

Subject: Re: [EXTERNAL] RE: PG&E Topock Soil NTCRA - Request DOI's Approval AOC10-1 Backfill Request
Sent: 10/10/2023, 2:04:13 PM
From: Dickerson, Veronica L <veronica_dickerson@ios.doi.gov>
To: Glass, John; Aaron Yue; 'ayue@dtsc.ca.gov'; Baker, Karen@DTSC; 'cguerre@dtsc.ca.gov'; Meyers, Richard J; 'Linda Otero, Fort Mohave'; Nora McDowell (NoraMcDowell@fortmojave.com); 'Leo S. Leonhart, Hargis & Associates'; 'Doug Bonamici'; 'tcraft350c@yahoo.com'; 'Ronald Escobar'; 'chem.waterquality@gmail.com'; 'culturalres@cocopah.com'; calisay17; Edgardo Castillo; Steven Escobar; cit.enviroassistant@gmail.com; Lyndee Hornell; critthpo@crit-nsn.gov; Bryan Etsitty; pems.edev@cit-nsn.gov; wqtech.epa@cit-nsn.gov; Toni Carlyle; Rena Van Fleet, CRIT; Jill McCormick; Smith, Jeffery B; meggers; prucha; Tony Rossi; Ruben Sanchez; Michael Long; Potor, Augustine P; Dawn Duncan-Hubbs; Bruce, Bonni D; Amber Warden
Cc: Darcangelo, Jennifer; Bonnett, Kristina; Diaz, David; CH2MHILL EIR Compliance Topock; Sheets, Keith; Reynolds, Michael; Rosenberg, Josh; Hong, Christina

DOI approves the backfill request for AOC10-1. Backfill will be conducted in accordance with the Slope Stabilization Plan provided to stakeholders on October 3, 2023.

PG&E must ensure the following stipulations are followed.

Tribal monitors and A&E archaeologists will be on site to view the aggregate materials from both Airport and Cedar Hills quarries as it is dispersed from the trucks.

Quarry sources for the NTCRA backfills will be noted so that a record of which quarry sources are used at specific locations can be tracked.

Veronica Dickerson
Environmental Compliance and Cleanup Division (ECCD)
Office of Environmental Policy and Compliance (OEPC)
US Department of Interior

440-665-0915

For Department/Bureau Staff:
[Contaminated Sites Initiative \(CSI\) Portal](#)

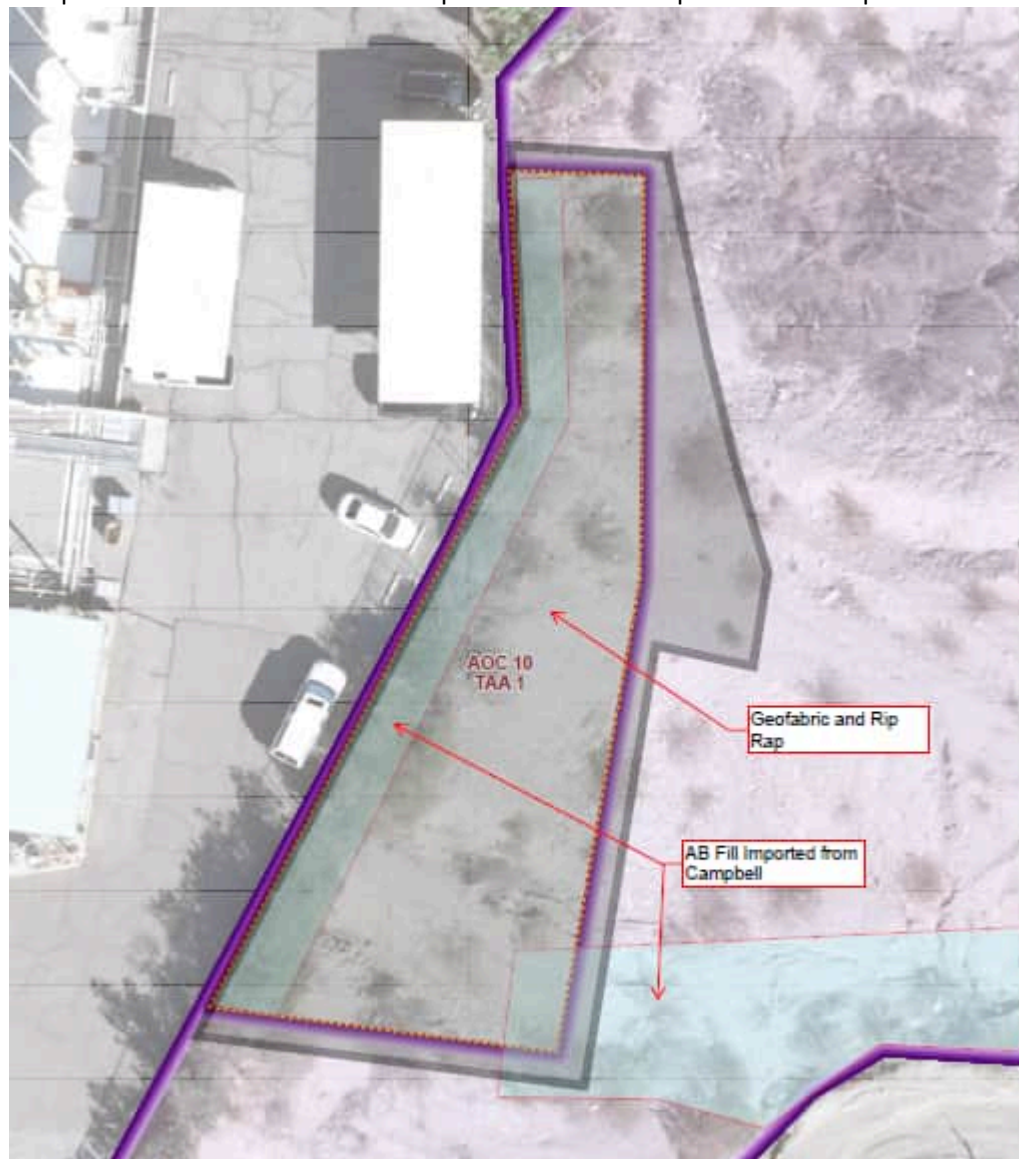
From: Glass, John <F2G5@pge.com>
Sent: Tuesday, October 10, 2023 12:41 PM
To: Dickerson, Veronica L <veronica_dickerson@ios.doi.gov>; Aaron Yue <Aaron.Yue@dtsc.ca.gov>; 'ayue@dtsc.ca.gov' <'ayue@dtsc.ca.gov'>; Baker, Karen@DTSC <Karen.Baker@dtsc.ca.gov>; 'cguerre@dtsc.ca.gov' <'cguerre@dtsc.ca.gov'>; Meyers, Richard J <richard_meyers@fws.gov>; 'Linda Otero, Fort Mohave' <LindaOtero@fortmojave.com>; Nora McDowell (NoraMcDowell@fortmojave.com) <NoraMcDowell@fortmojave.com>; 'Leo S. Leonhart, Hargis & Associates' <LLeonhart@hargis.com>; 'Doug Bonamici' <dbonamici@critdoj.com>; 'tcraft350c@yahoo.com' <tcraft350c@yahoo.com>; 'Ronald Escobar' <ronetribe@yahoo.com>; 'chem.waterquality@gmail.com' <chem.waterquality@gmail.com>; 'culturalres@cocopah.com' <culturalres@cocopah.com>; calisay17 <calisay17@hotmail.com>; Edgardo Castillo <cocopahtpm@gmail.com>; Steven Escobar <dir.epa@cit-nsn.gov>; cit.enviroassistant@gmail.com <cit.enviroassistant@gmail.com>; Lyndee Hornell <hornell@ymail.com>; critthpo@crit-nsn.gov <critthpo@crit-nsn.gov>; Bryan Etsitty <bsetsitty@gmail.com>; pems.edev@cit-nsn.gov <pems.edev@cit-nsn.gov>; wqtech.epa@cit-nsn.gov <wqtech.epa@cit-nsn.gov>; Toni Carlyle <toni.carlyle@crit-nsn.gov>; Rena Van Fleet, CRIT <rena.vanfleet@crit-nsn.gov>; Jill McCormick <historicpreservation@quechantribe.com>; Smith, Jeffery B <JefferySmith@usbr.gov>; meggers <meggers@eggerv.com>; prucha <prucha@integratedhydro.com>; Tony Rossi <TROSSI@HARGIS.COM>; Ruben Sanchez <RSanchez@HARGIS.COM>; Michael Long <mlong@HARGIS.COM>; Potor, Augustine P <apotor@blm.gov>; Dawn Duncan-Hubbs <dawn@sunriseconsultation.com>; Bruce, Bonni D <bbruce@blm.gov>; Amber Warden <awarden@hargis.com>
Cc: Darcangelo, Jennifer <J5D8@pge.com>; Bonnett, Kristina <KABY@pge.com>; Diaz, David <D3D6@pge.com>; CH2MHILL EIR Compliance Topock <EIRComplianceTopock@jacobs.com>; Sheets, Keith <Keith.Sheets@jacobs.com>; Reynolds, Michael <Michael.Reynolds@jacobs.com>; Rosenberg, Josh <Josh.Rosenberg@jacobs.com>; Hong, Christina/LAC <Christina.Hong@jacobs.com>; Glass, John <F2G5@pge.com>
Subject: [EXTERNAL] RE: PG&E Topock Soil NTCRA - Request DOI's Approval AOC10-1 Backfill Request

Hello Veronica,

Clarifying the backfill material purposed location AOC10 TAA1. Per the slope stabilization plan PG&E will use material from two quarries and available boulders from the Boulders stockpile in the SPY:

- Rip rap 4-8 inch "Aztec rock" from McCrossen Cedar Hills quarry, sourced from Kingman, Arizona
- Aggregate base material from Campbell's Airport quarry near Lake Havasu, Arizona

The placement of the materials was presented in the slope stabilization plan email attached and shown below.



Both quarries were approved on 10/6/2023 by the BLM with concurrence from the DOI on 10/10/2023.

An observation location will be made available outside of the exclusion zone for tribal monitors and A&E archaeologists to view the aggregate materials from both Airport and Cedar Hills quarries as it is dispersed from the trucks.

No additional information from the request made on 10/6/2023.

Backfill operations will begin upon receipt of DOI's approval.

Regards,

John Glass

C: 628-219-4369

From: Glass, John <F2G5@pge.com>
Sent: Friday, October 6, 2023 3:11 PM
To: Dickerson, Veronica L <veronica_dickerson@ios.doi.gov>; Aaron Yue <Aaron.Yue@dtsc.ca.gov>; 'ayue@dtsc.ca.gov'; Baker, Karen@DTSC <Karen.Baker@dtsc.ca.gov>; 'cguerre@dtsc.ca.gov'; Meyers, Richard J <richard_meyers@fws.gov>; 'Linda Otero, Fort Mohave' <LindaOtero@fortmojave.com>; Nora McDowell (NoraMcDowell@fortmojave.com) <NoraMcDowell@fortmojave.com>; 'Leo S. Leonhart, Hargis & Associates' <LLeonhart@hargis.com>; 'Doug Bonamici' <dbonamici@critdoj.com>; 'tcraft350c@yahoo.com' <tcraft350c@yahoo.com>; 'Ronald Escobar' <ronetribe@yahoo.com>; 'chem.waterquality@gmail.com' <chem.waterquality@gmail.com>; 'culturalres@cocopah.com' <culturalres@cocopah.com>; Carrie Cannon <calisay17@hotmail.com>; Edgardo Castillo <cocopahtpm@gmail.com>; Steven Escobar <dir.epa@cit-nsn.gov>; cit.enviroassistant@gmail.com; Lyndee Hornell <lhornell@ymail.com>; critthpo@crit-nsn.gov; Bryan Etsitty <bsetsitty@gmail.com>; pems.edev@cit-nsn.gov; wqtech.epa@cit-nsn.gov; Toni Carlyle <toni.carlyle@crit-nsn.gov>; Rena Van Fleet, CRIT <rena.vanfleet@crit-nsn.gov>; Jill McCormick <historicpreservation@quechantribe.com>; Smith, Jeffery B <JefferySmith@usbr.gov>; meggers <meggers@eggervenv.com>; prucha <prucha@integratedhydro.com>; Tony Rossi <TROSSI@HARGIS.COM>; Ruben Sanchez <RSanchez@HARGIS.COM>; Michael Long <mlong@HARGIS.COM>; Potor, Augustine P <apotor@blm.gov>; Dawn Duncan-Hubbs <dawn@sunriseconsultation.com>
Cc: Darcangelo, Jennifer <J5D8@pge.com>; Bonnett, Kristina <KABY@pge.com>; Diaz, David <D3D6@pge.com>; CH2MHILL EIR Compliance Topock <EIRComplianceTopock@jacobs.com>; Sheets, Keith <Keith.Sheets@jacobs.com>; Reynolds, Michael <Michael.Reynolds@jacobs.com>; Rosenberg, Josh <Josh.Rosenberg@jacobs.com>; Hong, Christina/LAC <Christina.Hong@jacobs.com>; Glass, John <F2G5@pge.com>
Subject: PG&E Topock Soil NTCRA - Request DOI's Approval AOC10-1 Backfill Request

Hello Veronica,

Soil NTCRA excavation including approved step-outs at AOC10 TAA1 were completed in September 2023. The excavation removed contaminated soil in accordance with remedial action objective (RAO) 1 and 2 to a depth of approximately 3 feet bgs. Yellow, orange, and white stained soil were observed at various depths throughout the TAA. A chunky white powder was observed on the surface in the northeastern portion of the TAA and east of the TAA. Analytical result from stained soil and white powders indicate chromium and dioxins concentrations exceeding the NTCRA Removal Action Goal (RAGs). See attached data table for soil sample results. Confirmation soil sampling from the sidewalls and floor of the excavation indicate contamination exceeding the numerical RAGs has been removed with the following exceptions:

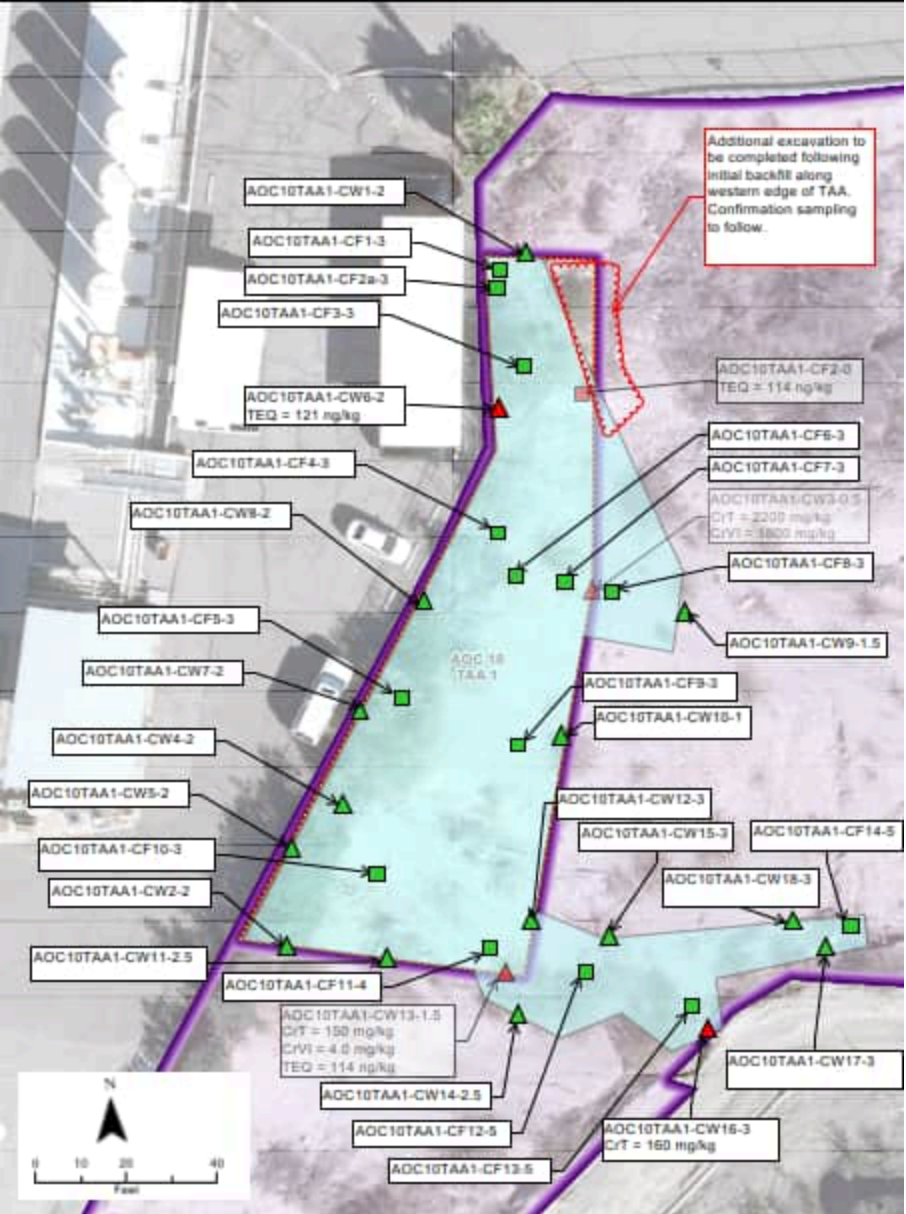
- Sample AOC10TAA1-CW16-3: This sample was collected approximately 5 feet from a high voltage electrical line. Further excavation in this area is not planned.
- Sample AOC10TAA1-CW6-2: This sample was collected along the western edge of the TAA boundary. An additional foot of soil can be removed before entering the TCS property. Crews will remove the additional soil up to one foot and resample. Further excavation beyond this sample is not planned as additional excavation would result in entering the TCS property.
- Northeast corner: The area to the northeast of the TAA was not previously accessible. Backfill of the existing excavation is needed to reach the area. Once backfilled, additional surficial excavation, to remove white chunky powder, will be conducted and confirmation soil sampling will be conducted.

Next Steps

The excavation at AOC10 TAA1 is ready for backfill. Backfill will be conducted in accordance with the Slope Stabilization Plan provided to stakeholders on October 3, 2023 (See attached). As noted above, additional excavation and sampling will be conducted after a portion of the backfill operations along the western edge of the TAA are complete.

Backfill operations will begin upon receipt of DOI's approval.

Site Map



Regards,
John Glass
 Pacific Gas and Electric Co
 Program Manager
 C: 628-219-4369

Subject: PG&E Topock Soil NTCRA - Request DOI's Approval for Strategic Backfill Approach within East Ravine
Sent: 1/20/2023, 10:27:58 AM
From: Hong, Christina<Christina.Hong@jacobs.com>
To: 'ayue@dtsc.ca.gov'; Baker, Karen@DTSC; 'cguerre@dtsc.ca.gov'; richard_meyers@fws.gov; 'Linda Otero, Fort Mohave'; Nora McDowell (NoraMcDowell@fortmojave.com); 'Leo S. Leonhart, Hargis & Associates'; 'Doug Bonamici'; 'tcraft350c@yahoo.com'; 'Ronald Escobar'; 'chem.waterquality@gmail.com'; 'culturalres@cocopah.com'; Carrie Cannon; Edgardo Castillo; Steven Escobar; cit.enviroassistant@gmail.com; Lyndee Hornell; critthpo@critnsn.gov; Bryan Etsitty; pems.edev@cit-nsn.gov; wqtech.epa@cit-nsn.gov; Toni Carlyle; Rena Van Fleet, CRIT; Justin Brundin, Cocopah; Jill McCormick; Smith, Jeffery B; meggers; prucha; Anthony Rossi; Ruben Sanchez; Michael Long; Dickerson, Veronica L; Meyers, Richard J; Sparks, Edwin A; Augustine (August) Poter, BLM
Cc: Darcangelo, Jennifer; CH2MHILL EIR Compliance Topock; Bonnett, Kristina; Diaz, David; Glass, John; Sheets, Keith

Hi Veronica,

According to the NTCRA Work Plan (Jacobs 2022), the original approach was to backfill NTCRA Target Action Areas (TAAs) to original grades following excavation of contaminated soil. The planned excavation for AOC10 TAA2, developed from analytical results from previous, limited investigations, was to remove approximately 1,230 cubic yards (CYs) of contaminated soil from the area behind the East Ravine impoundment (See Figure below).

During the excavation of AOC10 TAA2, contaminated soil was encountered well beyond the originally proposed TAA boundary. Step-out excavations were authorized (please see notifications made on 9/12/22 and 10/20/22) and continued approximately 400 feet west of AOC10 TAA2 and across the entire East Ravine bottom (See Figure 2). This resulted in approximately 5,000 cubic yards of soil removed from AOC10 TAA2.

PG&E is proposing a strategic approach to backfilling within AOC10 TAA2 and East Ravine. The approach includes leaving the ravine in a state that is safe and compatible with the ongoing land use. Ongoing land use for East Ravine will be for supporting groundwater remedy features and habitat. PG&E is not proposing to backfill East Ravine to pre-NTCRA elevations citing the following:

1. The planned removal action included 1,230 CYs of contaminated soil within the original AOC10 TAA2 boundary. However, the removal action resulted in approximately 5,000 CYs of soil removed from within the TAA and an additional 400 feet of excavation that followed the ravine contours to a depth of approximately 3 to 5 feet. The removal performed does not leave TAA 2 in an unsafe state.
2. PG&E understands there is a concern expressed by Tribes and the Refuge about the use of import fill. It is estimated the NTCRA project will need approximately 10,000 CYs +/- of backfill material to backfill the NTCRA TAAs. There is approximately 3,000 CYs of onsite material that has been approved for reuse. These onsite soils, generated from remedy construction and TCS projects, will be prioritized for use as backfill for NTCRA. However, import soils will be required after site materials are exhausted. Backfilling of East Ravine to pre-NTCRA elevations will require approximately 5,000 CYs. Therefore, acceptance of this strategic backfill approach will reduce the NTCRA import requirements by approximately 5,000 CYs
3. Select backfilling along edges of the excavation to smooth topography and reduce vertical slopes will be performed, leaving the ravine in a safe state and condition prior to the commencing of the restoration activities. This approach is compatible with ongoing land uses.
4. Potential additional backfill / amendments may be added to promote restoration success per the future restoration plan.

PG&E believes this proposal will reduce the need for imported backfill and maximize the beneficial use of available onsite material for reuse on the NTCRA project as a whole. PG&E is seeking approval from the DOI to implement the proposed strategic backfill approach that will leave the East Ravine in a safe state compatible with ongoing land use.

Thanks, Christina Hong

Figure 1: Original AOC 10 TAA 2 Removal Action Area in Red/Yellow:

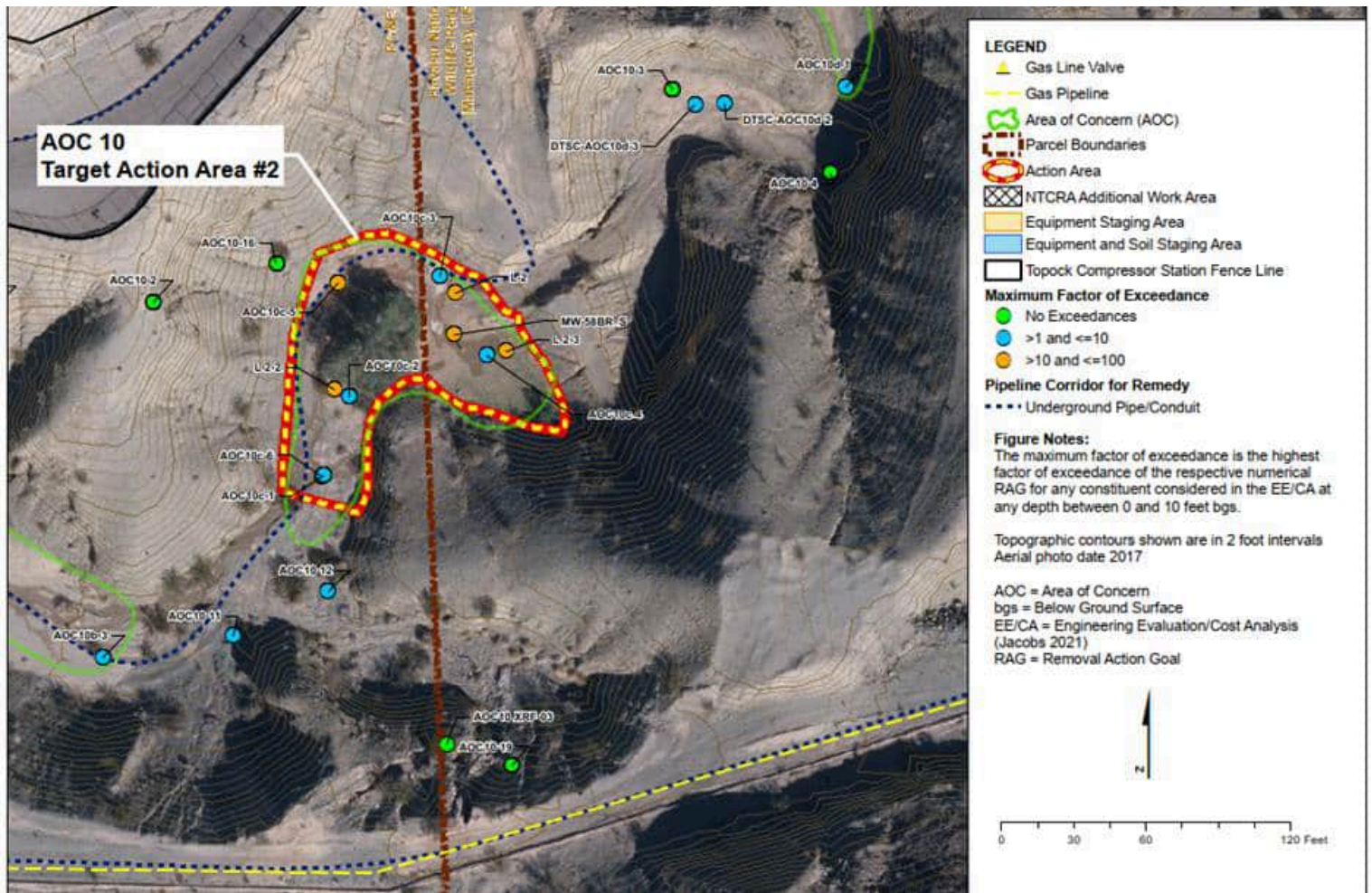
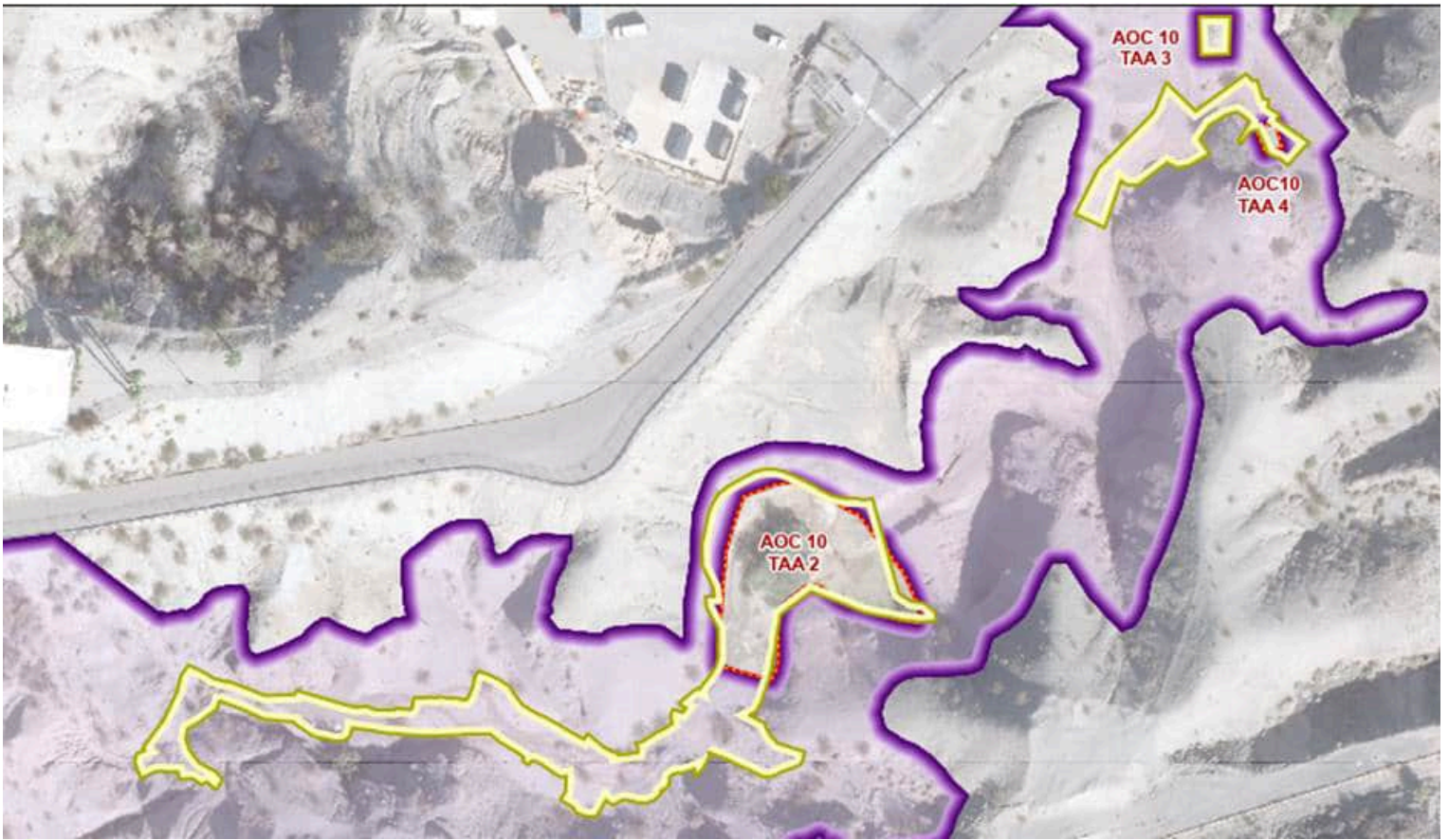





Figure 2: AOC 10 Excavation Limits:



-  Target Action Area
-  NTCRA Work Area
-  NTCRA Excavation Area

Subject: [EXTERNAL] PG&E Topock Soil NTCRA - Revised Request DOI's Approval for Strategic Backfill Approach within East Ravine
Sent: 2/2/2023, 6:33:49 PM
From: Glass, John<F2G5@pge.com>
To: Hong, Christina; 'ayue@dtsc.ca.gov'; Baker, Karen@DTSC; 'cguerre@dtsc.ca.gov'; richard_meyers@fws.gov; 'Linda Otero, Fort Mohave'; Nora McDowell (NoraMcDowell@fortmojave.com); 'Leo S. Leonhart, Hargis & Associates'; 'Doug Bonamici'; 'tcraft350c@yahoo.com'; 'Ronald Escobar'; 'chem.waterquality@gmail.com'; 'culturalres@cocopah.com'; Carrie Cannon; Edgardo Castillo; Steven Escobar; cit.enviroassistant@gmail.com; Lyndee Hornell; critthpo@crit-nsn.gov; Bryan Etsitty; pems.edev@cit-nsn.gov; wqtech.epa@cit-nsn.gov; Toni Carlyle; Rena Van Fleet, CRIT; Justin Brundin, Cocopah; Jill McCormick; Smith, Jeffery B; meggers; prucha; Anthony Rossi; Ruben Sanchez; Michael Long; Dickerson, Veronica L; Meyers, Richard J; Sparks, Edwin A; Augustine (August) Potor, BLM
Cc: Darcangelo, Jennifer; CH2MHILL EIR Compliance Topock; Bonnett, Kristina; Diaz, David; Sheets, Keith

Hi Veronica,

PG&E would like to revise our request for approval from the DOI to complete Strategic Backfill Approach within East Ravine to only using onsite soils generated from remedy construction and TCS projects. The objective of the Strategic Backfill Approach is to leave the ravine in a safe state and condition prior to the commencing remedy work and the restoration activities within the ravine. This approach is compatible with ongoing land uses and eliminates the need for imported backfill at the East Ravine.

PG&E still believes this approach will reduce the need for imported backfill and maximize the beneficial use of available onsite material for reuse on the NTCRA project as a whole.

Regards,

John Glass

Program Manager, Environmental Remediation
Pacific Gas & Electric Company
C-628-219-4369
Email – F2G5@pge.com

!SAFETY IS A CHOICE YOU MAKE!

From: Hong, Christina <Christina.Hong@jacobs.com>
Sent: Friday, January 20, 2023 9:28 AM
To: 'ayue@dtsc.ca.gov'; Baker, Karen@DTSC <Karen.Baker@dtsc.ca.gov>; 'cguerre@dtsc.ca.gov'; richard_meyers@fws.gov; 'Linda Otero, Fort Mohave' <LindaOtero@fortmojave.com>; Nora McDowell (NoraMcDowell@fortmojave.com) <NoraMcDowell@fortmojave.com>; 'Leo S. Leonhart, Hargis & Associates' <LLeonhart@hargis.com>; 'Doug Bonamici' <dbonamici@critdoj.com>; 'tcraft350c@yahoo.com' <tcraft350c@yahoo.com>; 'Ronald Escobar' <ronetribe@yahoo.com>; 'chem.waterquality@gmail.com' <chem.waterquality@gmail.com>; 'culturalres@cocopah.com' <culturalres@cocopah.com>; Carrie Cannon <calisay17@hotmail.com>; Edgardo Castillo <cocopahtpm@gmail.com>; Steven Escobar <dir.epa@cit-nsn.gov>; cit.enviroassistant@gmail.com; Lyndee Hornell <lhornell@ymail.com>; critthpo@crit-nsn.gov; Bryan Etsitty <bsetsitty@gmail.com>; pems.edev@cit-nsn.gov; wqtech.epa@cit-nsn.gov; Toni Carlyle <toni.carlyle@crit-nsn.gov>; Rena Van Fleet, CRIT <rena.vanfleet@crit-nsn.gov>; Justin Brundin, Cocopah <brundinj@cocopah.com>; Jill McCormick <historicpreservation@quechantribe.com>; Smith, Jeffery B <JefferySmith@usbr.gov>; meggers <meggers@eggervenv.com>; prucha <prucha@integratedhydro.com>; Anthony Rossi <TROSSI@HARGIS.COM>; Ruben Sanchez <RSanchez@HARGIS.COM>; Michael Long <mlong@HARGIS.COM>; Dickerson, Veronica L <veronica_dickerson@ios.doi.gov>; Meyers, Richard J <richard_meyers@fws.gov>; Sparks, Edwin A <edwin_sparks@fws.gov>; Augustine (August) Potor, BLM <apotor@blm.gov>
Cc: Darcangelo, Jennifer <J5D8@pge.com>; CH2MHILL EIR Compliance Topock <EIRComplianceTopock@jacobs.com>; Bonnett, Kristina <KABY@pge.com>; Diaz, David <D3D6@pge.com>; Glass, John <F2G5@pge.com>; Sheets, Keith

<Keith.Sheets@jacobs.com>

Subject: PG&E Topock Soil NTCRA - Request DOI's Approval for Strategic Backfill Approach within East Ravine

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Hi Veronica,

According to the NTCRA Work Plan (Jacobs 2022), the original approach was to backfill NTCRA Target Action Areas (TAAs) to original grades following excavation of contaminated soil. The planned excavation for AOC10 TAA2, developed from analytical results from previous, limited investigations, was to remove approximately 1,230 cubic yards (CYs) of contaminated soil from the area behind the East Ravine impoundment (See Figure below).

During the excavation of AOC10 TAA2, contaminated soil was encountered well beyond the originally proposed TAA boundary. Step-out excavations were authorized (please see notifications made on 9/12/22 and 10/20/22) and continued approximately 400 feet west of AOC10 TAA2 and across the entire East Ravine bottom (See Figure 2). This resulted in approximately 5,000 cubic yards of soil removed from AOC10 TAA2.

PG&E is proposing a strategic approach to backfilling within AOC10 TAA2 and East Ravine. The approach includes leaving the ravine in a state that is safe and compatible with the ongoing land use. Ongoing land use for East Ravine will be for supporting groundwater remedy features and habitat. PG&E is not proposing to backfill East Ravine to pre-NTCRA elevations citing the following:

1. The planned removal action included 1,230 CYs of contaminated soil within the original AOC10 TAA2 boundary. However, the removal action resulted in approximately 5,000 CYs of soil removed from within the TAA and an additional 400 feet of excavation that followed the ravine contours to a depth of approximately 3 to 5 feet. The removal performed does not leave TAA 2 in an unsafe state.
2. PG&E understands there is a concern expressed by Tribes and the Refuge about the use of import fill. It is estimated the NTCRA project will need approximately 10,000 CYs +/- of backfill material to backfill the NTCRA TAAs. There is approximately 3,000 CYs of onsite material that has been approved for reuse. These onsite soils, generated from remedy construction and TCS projects, will be prioritized for use as backfill for NTCRA. However, import soils will be required after site materials are exhausted. Backfilling of East Ravine to pre-NTCRA elevations will require approximately 5,000 CYs. Therefore, acceptance of this strategic backfill approach will reduce the NTCRA import requirements by approximately 5,000 CYs
3. Select backfilling along edges of the excavation to smooth topography and reduce vertical slopes will be performed, leaving the ravine in a safe state and condition prior to the commencing of the restoration activities. This approach is compatible with ongoing land uses.
4. Potential additional backfill / amendments may be added to promote restoration success per the future restoration plan.

PG&E believes this proposal will reduce the need for imported backfill and maximize the beneficial use of available onsite material for reuse on the NTCRA project as a whole. PG&E is seeking approval from the DOI to implement the proposed strategic backfill approach that will leave the East Ravine in a safe state compatible with ongoing land use.

Thanks, Christina Hong

Figure 1: Original AOC 10 TAA 2 Removal Action Area in Red/Yellow:

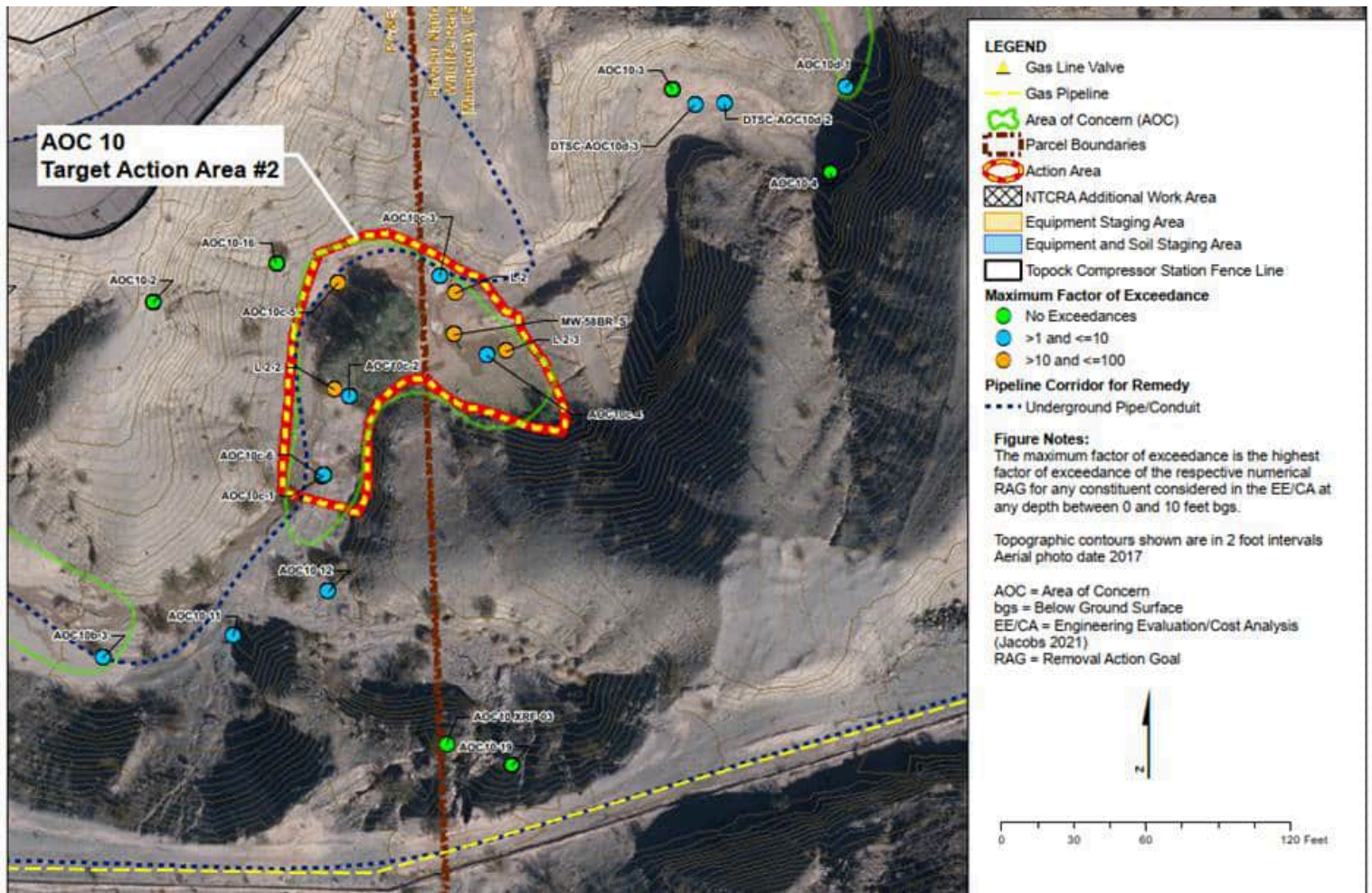
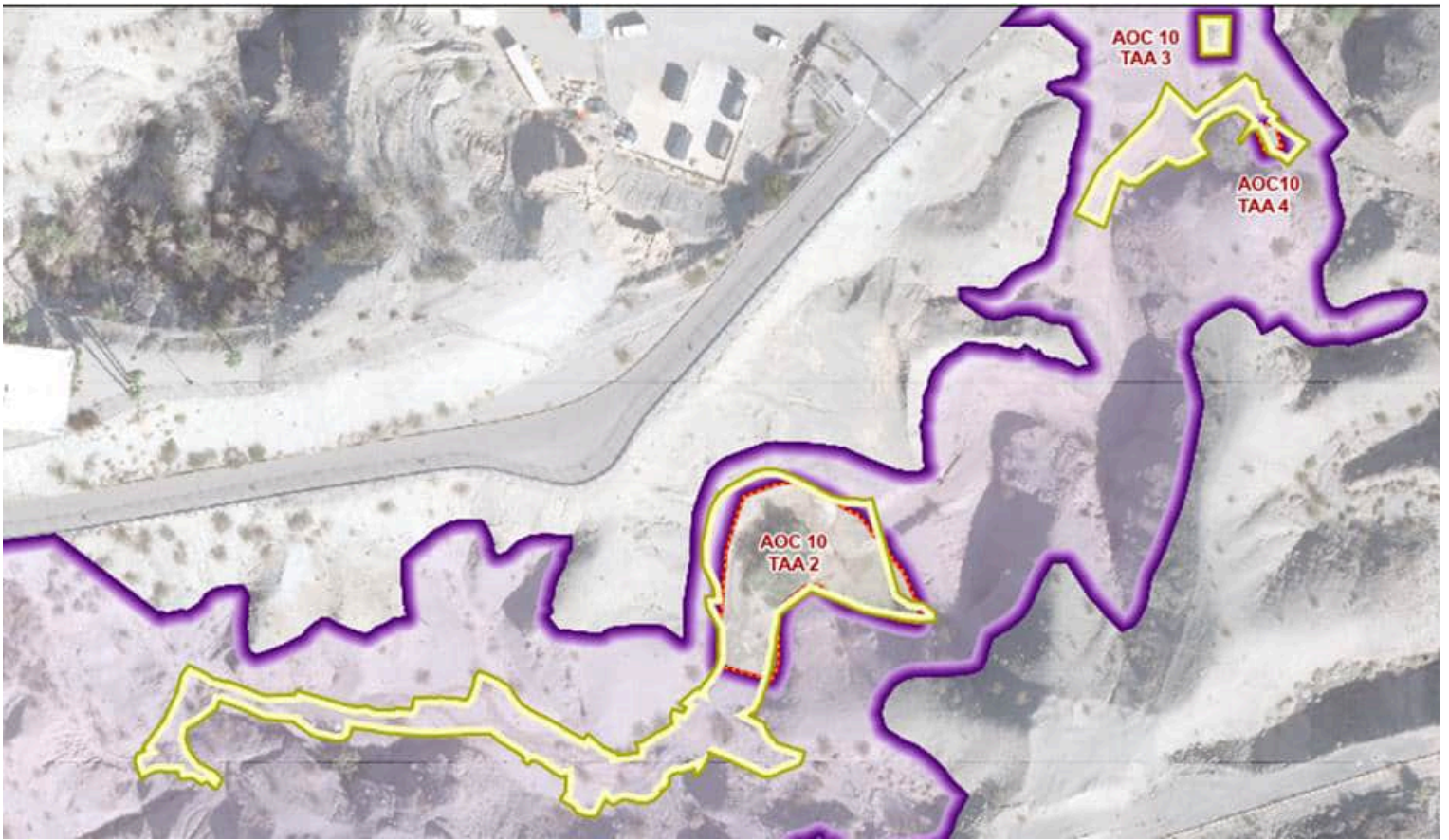





Figure 2: AOC 10 Excavation Limits:



-  Target Action Area
-  NTCRA Work Area
-  NTCRA Excavation Area

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Subject: Re: [EXTERNAL] PG&E Topock Soil NTCRA - Revised Request DOI's Approval for Strategic Backfill Approach within East Ravine
Sent: 2/3/2023, 11:23:27 AM
From: Dickerson, Veronica L<veronica_dickerson@ios.doi.gov>
To: Glass, John; Hong, Christina; 'ayue@dtsc.ca.gov'; Baker, Karen@DTSC; 'cguerre@dtsc.ca.gov'; Meyers, Richard J; 'Linda Otero, Fort Mohave'; Nora McDowell (NoraMcDowell@fortmojave.com); 'Leo S. Leonhart, Hargis & Associates'; 'Doug Bonamici'; 'tcraft350c@yahoo.com'; 'Ronald Escobar'; 'chem.waterquality@gmail.com'; 'culturalres@cocopah.com'; Carrie Cannon; Edgardo Castillo; Steven Escobar; cit.enviroassistant@gmail.com; Lyndee Hornell; critthpo@crit-nsn.gov; Bryan Etsitty; pems.edev@cit-nsn.gov; wqtech.epa@cit-nsn.gov; Toni Carlyle; Rena Van Fleet, CRIT; Justin Brundin, Cocopah; Jill McCormick; Smith, Jeffery B; meggers; prucha; Anthony Rossi; Ruben Sanchez; Michael Long; Meyers, Richard J; Sparks, Edwin A; Potor, Augustine P
Cc: Darcangelo, Jennifer; CH2MHILL EIR Compliance Topock; Bonnett, Kristina; Diaz, David; Sheets, Keith

DOI approves with the strategic backfill approach proposed by PG&E for East Ravine. DOI understand that only onsite soils generated from remedy construction and TCS projects will be used.

Veronica Dickerson
Environmental Compliance and Cleanup Division
Office of Environmental Policy and Compliance (OEPC)
US Department of Interior

440-665-0915

From: Glass, John <F2G5@pge.com>
Sent: Thursday, February 2, 2023 8:33 PM
To: Hong, Christina <Christina.Hong@jacobs.com>; 'ayue@dtsc.ca.gov' <'ayue@dtsc.ca.gov'>; Baker, Karen@DTSC <Karen.Baker@dtsc.ca.gov>; 'cguerre@dtsc.ca.gov' <'cguerre@dtsc.ca.gov'>; Meyers, Richard J <richard_meyers@fws.gov>; 'Linda Otero, Fort Mohave' <LindaOtero@fortmojave.com>; Nora McDowell (NoraMcDowell@fortmojave.com) <NoraMcDowell@fortmojave.com>; 'Leo S. Leonhart, Hargis & Associates' <LLeonhart@hargis.com>; 'Doug Bonamici' <dbonamici@critdoj.com>; 'tcraft350c@yahoo.com' <tcraft350c@yahoo.com>; 'Ronald Escobar' <ronetribe@yahoo.com>; 'chem.waterquality@gmail.com' <chem.waterquality@gmail.com>; 'culturalres@cocopah.com' <culturalres@cocopah.com>; Carrie Cannon <calisay17@hotmail.com>; Edgardo Castillo <cocopahtpm@gmail.com>; Steven Escobar <dir.epa@cit-nsn.gov>; cit.enviroassistant@gmail.com <cit.enviroassistant@gmail.com>; Lyndee Hornell <lhornell@ymail.com>; critthpo@crit-nsn.gov <critthpo@crit-nsn.gov>; Bryan Etsitty <bsetsitty@gmail.com>; pems.edev@cit-nsn.gov <pems.edev@cit-nsn.gov>; wqtech.epa@cit-nsn.gov <wqtech.epa@cit-nsn.gov>; Toni Carlyle <toni.carlyle@crit-nsn.gov>; Rena Van Fleet, CRIT <rena.vanfleet@crit-nsn.gov>; Justin Brundin, Cocopah <brundinj@cocopah.com>; Jill McCormick <historicpreservation@quechantribe.com>; Smith, Jeffery B <JefferySmith@usbr.gov>; meggers <megggers@egggersenv.com>; prucha <prucha@integratedhydro.com>; Anthony Rossi <TROSSI@HARGIS.COM>; Ruben Sanchez <RSanchez@HARGIS.COM>; Michael Long <mlong@HARGIS.COM>; Dickerson, Veronica L <veronica_dickerson@ios.doi.gov>; Meyers, Richard J <richard_meyers@fws.gov>; Sparks, Edwin A <edwin_sparks@fws.gov>; Potor, Augustine P <apotor@blm.gov>
Cc: Darcangelo, Jennifer <J5D8@pge.com>; CH2MHILL EIR Compliance Topock <EIRComplianceTopock@jacobs.com>; Bonnett, Kristina <KABY@pge.com>; Diaz, David <D3D6@pge.com>; Sheets, Keith <Keith.Sheets@jacobs.com>
Subject: [EXTERNAL] PG&E Topock Soil NTCRA - Revised Request DOI's Approval for Strategic Backfill Approach within East Ravine

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Hi Veronica,
PG&E would like to revise our request for approval from the DOI to complete Strategic Backfill Approach within East Ravine to only using onsite soils generated from remedy construction and TCS projects. The objective of the Strategic Backfill Approach is to leave the ravine in a safe state and condition prior to the commencing remedy work and the restoration activities within the ravine. This approach is compatible with ongoing land uses and eliminates the need for imported backfill at the East Ravine. PG&E still believes this approach will reduce the need for imported backfill and maximize the beneficial use of available onsite material for reuse on the NTCRA project as a whole.

Regards,

John Glass

Program Manager, Environmental Remediation

Pacific Gas & Electric Company

C-628-219-4369

Email – F2G5@pge.com

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From: Hong, Christina <Christina.Hong@jacobs.com>

Sent: Friday, January 20, 2023 9:28 AM

To: 'ayue@dtsc.ca.gov'; Baker, Karen@DTSC <Karen.Baker@dtsc.ca.gov>; 'cguerre@dtsc.ca.gov'; richard_meyers@fws.gov; 'Linda Otero, Fort Mohave' <LindaOtero@fortmojave.com>; Nora McDowell (NoraMcDowell@fortmojave.com)

<NoraMcDowell@fortmojave.com>; 'Leo S. Leonhart, Hargis & Associates' <LLeonhart@hargis.com>; 'Doug Bonamici' <dbonamici@critdoj.com>; 'tcraft350c@yahoo.com' <tcraft350c@yahoo.com>; 'Ronald Escobar' <ronetribes@yahoo.com>;

'chem.waterquality@gmail.com' <chem.waterquality@gmail.com>; 'culturalres@cocopah.com' <culturalres@cocopah.com>; Carrie Cannon <calisay17@hotmail.com>; Edgardo Castillo <cocopahtpm@gmail.com>; Steven Escobar <dir.epa@cit-nsn.gov>; cit.enviroassistant@gmail.com; Lyndee Hornell <lhornell@ymail.com>; critthpo@crit-nsn.gov; Bryan Etsitty <bsetsitty@gmail.com>;

pems.edev@cit-nsn.gov; wqtech.epa@cit-nsn.gov; Toni Carlyle <toni.carlyle@crit-nsn.gov>; Rena Van Fleet, CRIT <rena.vanfleet@crit-nsn.gov>; Justin Brundin, Cocopah <brundinj@cocopah.com>; Jill McCormick <historicpreservation@quechantribe.com>; Smith, Jeffery B <JefferySmith@usbr.gov>; meggers <meggers@eggerv.com>; prucha <prucha@integratedhydro.com>; Anthony Rossi <TROSSI@HARGIS.COM>;

Ruben Sanchez <RSanchez@HARGIS.COM>; Michael Long <mlong@HARGIS.COM>; Dickerson, Veronica L <veronica_dickerson@ios.doi.gov>; Meyers, Richard J <richard_meyers@fws.gov>; Sparks, Edwin A <edwin_sparks@fws.gov>;

Augustine (August) Poter, BLM <apotor@blm.gov>

Cc: Darcangelo, Jennifer <J5D8@pge.com>; CH2MHILL EIR Compliance Topock <EIRComplianceTopock@jacobs.com>; Bonnett, Kristina <KABY@pge.com>; Diaz, David <D3D6@pge.com>; Glass, John <F2G5@pge.com>; Sheets, Keith <Keith.Sheets@jacobs.com>

Subject: PG&E Topock Soil NTCRA - Request DOI's Approval for Strategic Backfill Approach within East Ravine

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Thanks, Christina Hong

Figure 1: Original AOC 10 TAA 2 Removal Action Area in Red/Yellow:

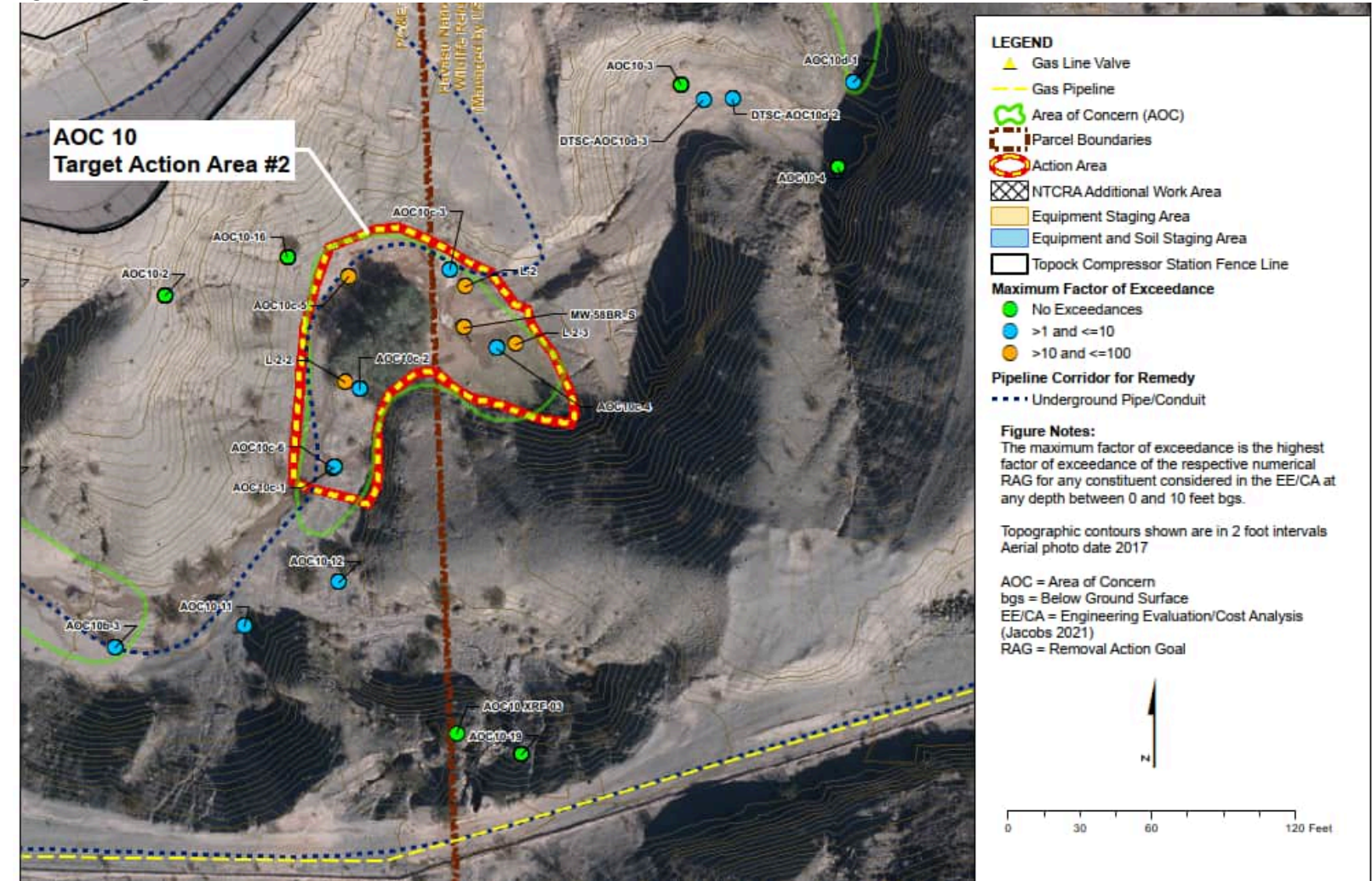
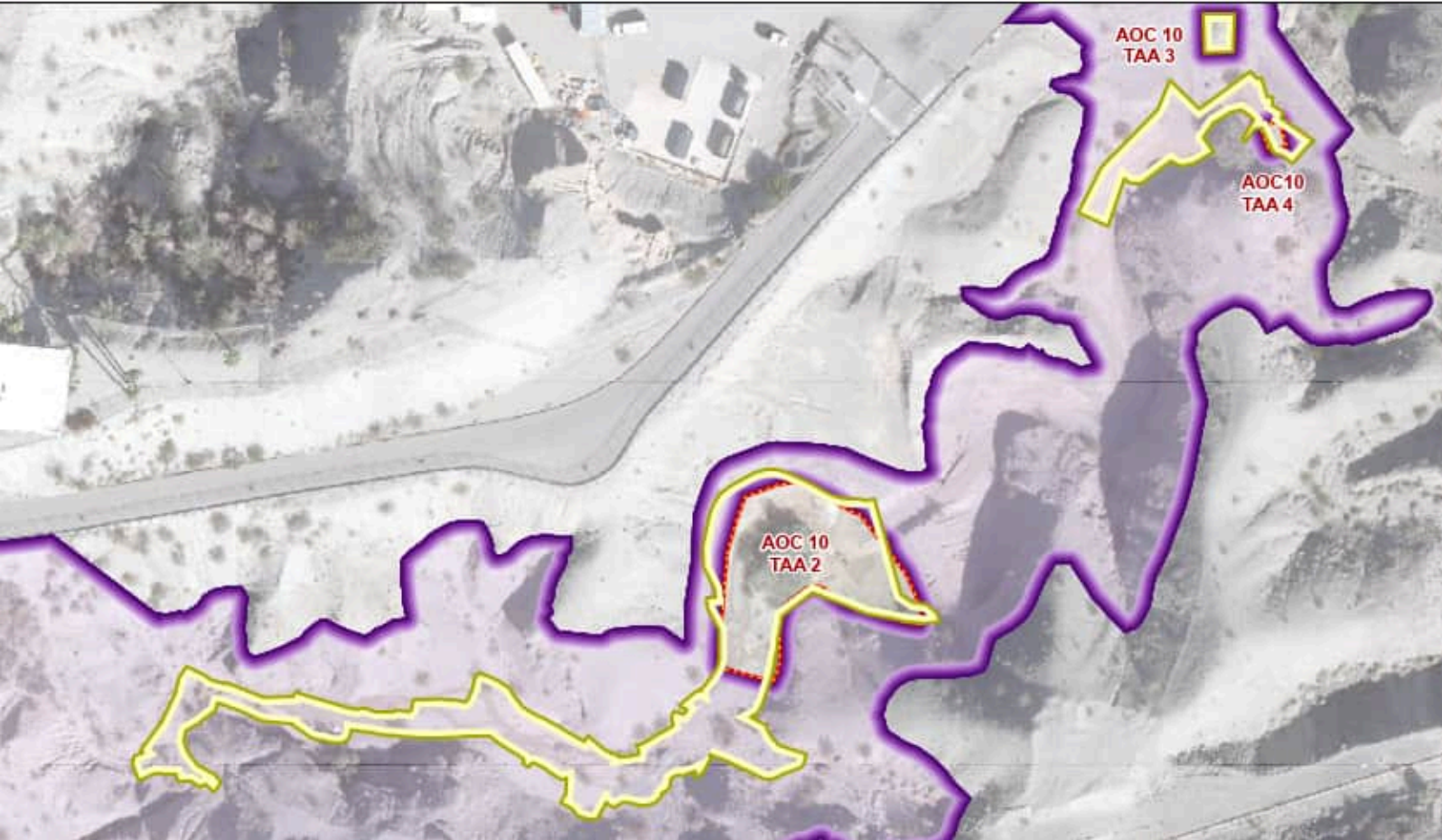


Figure 2: AOC 10 Excavation Limits:



- Target Action Area
- NTCRA Work Area
- NTCRA Excavation Area

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From: [Glass, John](#)
To: [Dickerson, Veronica L](#); [Aaron Yue](#); [Baker, Karen@DTSC](#); [Meyers, Richard J](#); "Linda Otero, Fort Mohave"; [Nora McDowell \(NoraMcDowell@fortmojave.com\)](#); "Leo S. Leonhart, Hargis & Associates"; "tcraft350c@yahoo.com"; "Ronald Escobar"; "chem.waterquality@gmail.com"; "culturalres@cocopah.com"; calisay17; [Edgardo Castillo](#); [Steven Escobar](#); [cit.enviroassistant@gmail.com](#); [Lyndee Hornell](#); [critthpo@crit-nsn.gov](#); [Bryan Etsitty](#); [pems.edev@cit-nsn.gov](#); [wqtech.epa@cit-nsn.gov](#); [Toni Carlyle](#); [Jill McCormick](#); [Smith, Jeffery B](#); [meggers](#); [prucha](#); [Tony Rossi](#); [Ruben Sanchez](#); [Michael Long](#); [Potor, Augustine P](#); [Dawn Duncan-Hubbs](#); [Bruce, Bonni D](#); [Amber Warden](#); [ericrosenblum](#); [Walt McNab, Jr.](#); [dbonamici@critdoj.com](#); [rena.vanfleet](#)
Cc: [Bonnett, Kristina](#); [Diaz, David](#); [CH2MHILL EIR Compliance Topock](#); [Sheets, Keith](#); [Reynolds, Michael](#); [Rosenberg, Josh](#); [Hong, Christina](#); [Darcangelo, Jennifer](#); [Glass, John](#)
Subject: [EXTERNAL] PG&E Topock NTCRA - Post NTCRA SPY sampling plan
Date: Thursday, February 8, 2024 10:20:30 PM
Attachments: [TPK NTCRA Poststockpile Confirmation Sampling 20240208.pdf](#)
[SPY_SamplingMap_20240208.pdf](#)

Hi Veronica,

Please see the attached NTCRA Soil Processing Yard Post-Stockpile Confirmation Soil Sampling Plan and sampling map. Let me know if you have any questions.

Regards,

John Glass

Pacific Gas and Electric Co

C: 628-219-4369

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**Pacific Gas and Electric
Company**

John Glass, Chromium Remediation Principal
Consultant
300 Lakeside Drive
Oakland CA 94612
(628) 219-4369 (cell)
F2G5@pge.com

February 8, 2024

Veronica Dickerson
US Department of the Interior
4316 Nichols Road
Medina, Ohio 44256

Subject: Soil Non-Time Critical Removal Action Work Plan:
Post-Stockpile Confirmation Soil Sampling, Pacific Gas and Electric Company Topock
Compressor Station, Needles, California

Dear Ms. Dickerson:

This submittal provides details for Post-Stockpile Confirmation Soil Sampling to be conducted in accordance with Section 2.3.3.1 of the *Final Soil Non-Time Critical Removal Action Work Plan (Soil NTCRA Work Plan)* dated June 2022.

Section 2.3.3.1 is provided here for reference:

2.3.3.1 Post-Stockpile Confirmation Soil Sampling

Upon completion of stockpiling activities, soil samples will be collected from locations of former stockpiles. Sampling will be conducted to confirm that stockpile contents have been removed and that soils beneath the former stockpiles are not impacted by Soil NTCRA activities.

Post-stockpile confirmation soil sampling is only anticipated to be required at the SPY. Post-stockpile confirmation soil sampling is not anticipated within TAAs because temporary stockpiles will be placed on soil slated to be excavated. Furthermore, post-stockpile confirmation soil sampling is not anticipated at the Transwestern Bench soil staging area because the ground surface in this area is concrete.

A five-point composite sample will be collected for every 10,000 square feet (ft²) of former stockpile base. Sample collection will be performed in accordance with SOP-B14 Standard Operating Procedures for Sample Collection (Appendix H). After collection, the sample will be homogenized in accordance with SOP-B7, Homogenization of Sediment and Soil Samples (Appendix H). The sample preparation will be performed in appropriate PPE at a dedicated workstation set up within the EZ. Sample container exteriors will be decontaminated before leaving the EZ. Actual sample locations will be documented in the Soil NTCRA Completion Report.

Post-stockpile confirmation sample analyses will include:

- *Metals:*
 - *USEPA SW-6010B – Chromium, Copper, Lead, Molybdenum, and Zinc*

- USEPA SW-7471A – Mercury
- USEPA SW-7199/SW-3060A – Hexavalent Chromium
- Dioxin/Furans by USEPA SW-8290 (expressed as tetrachlorodibenzo-p-dioxin toxic equivalents)

Confirmation analysis will follow standard method protocols and will be validated according to the Quality Assurance Project Plan Addendum for the RCRA Facility Investigation/Remedial Investigation for Soil at the Topock Compressor Station (Jacobs 2019; presented in Appendix L).

Soil NTCRA Stockpiling Activities

Soil NTCRA stockpiling activities began at the SPY in July 2022 and are tentatively scheduled to end in March 2024. During that time, approximately 30,000 cubic yards of excavated soil were transported to the SPY and stockpiled prior to waste characterization, profiling, and offsite disposal.

Upon completion of the Soil NTCRA activities at the SPY, the ground surface will be cleared of residual soils, wastes, and debris (e.g., plastics) in preparation for the confirmation soil sampling described in Section 2.3.3.1 of the Soil NTCRA Work Plan.

Post Stockpile Confirmation Soil Sampling locations

Soil NTCRA stockpiling activities were conducted throughout both the Upper SPY and the Lower SPY (See Figure 1). No other waste management areas were used for soil stockpiling. Note that the TWB was used for waste soil staging, but only in sealed rolloff containers within secondary containment. Therefore, post-stockpile confirmation soil sampling will only take place in the Upper and Lower SPY.

For purposes of confirmation sampling, the Upper and Lower SPY have been digitally segmented into 16 sampling units; which provide coverage of the areas used for stockpiling and related waste management activities. Each sampling unit is approximately 10,000 square feet and intended to cover areas of roughly similar shapes except where not practical due to the nonuniform shape of the SPY (See Figure 1).

Each sampling unit will be characterized with a single 5-point composite sample which will be collected and analyzed in accordance with the Soil NTCRA Work Plan. Additionally, asbestos will be added to the analyte list. The individual composite aliquots will be collected from nonbiased systematic random locations within the sampling unit using the following logic (GPS coordinates to be provided to sample technician):

- 1- center point of each sampling unit
- 2- center of the northeast quadrant
- 3- center of the northwest quadrant
- 4- center of the southeast quadrant
- 5- center of the southwest quadrant

Aliquots from non-rectangular sampling units, primarily the north end of the Lower SPY, will be collected from 5 nonbiased evenly spaced locations throughout the sampling unit. The proposed sampling units and composite aliquot locations are shown in Figure 1. If a proposed aliquot location is inaccessible, due to the concrete block walls, trees, or other obstructions, then the sample aliquot will be collected from the nearest available disturbed soil. Sample aliquots will not be collected from undisturbed soil.

Aliquots of equal volume will be collected from 0-3 inches below ground surface, then composited in accordance with the SOPs listed in Section 2.3.3.1.

A single discrete sample is proposed to the northeast of the Lower SPY where temporary loading of impacted soil occurred outside of the SPY fencing. The discrete sample will be collected from 0-3 inches below ground surface, containerized, and analyzed in accordance with Section 2.3.3.1.

Data Interpretation

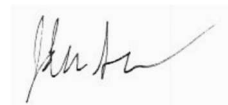
Analytical data will be compared to the Topock Soil Background concentrations (CH2M HILL, 2009) and the results of baseline soil samples collected in September 2018 and 2022 prior to the use of the SPY by PG&E (*Attachment C of the October 2023 Monthly Progress Report for the Final Topock Groundwater Remedy Construction and Startup*, see <https://topockremediation.pge.com/documents/cleanup-implementation/groundwater/construction-documents/monthly-progress-reports>) (see Figure 1). In addition, the US Bureau of Reclamation conducted soil sampling in 2023 (unrelated to the NTCRA) in the southwest corner of the Lower SPY. In summary, the baseline soil data includes:

- 4 samples in the Lower SPY (GRBS-38, GRBS-40, GRBS-41, GRBS-42),
- 6 samples in the Upper SPY (GRBS-SPYEXP-001, GRBS-SPYEXP-002, GRBS-SPYEXP-003, GRBS-SPYEXP-004, GRBS-SPYEXP-005, and GRBS-SPYEXP-006), and
- 3 samples (TOPOCK-T1, TOPOCK-T2, and TOPOCK-T3) collected by the Bureau of Reclamation from Stall 13 in the Lower SPY.

In the event that analytical data suggests metals or dioxin/furan impacts at concentrations exceeding the background or baseline data, then the DOI will be notified. Additional soil removal and/or resampling of the impacted sampling unit may be proposed.

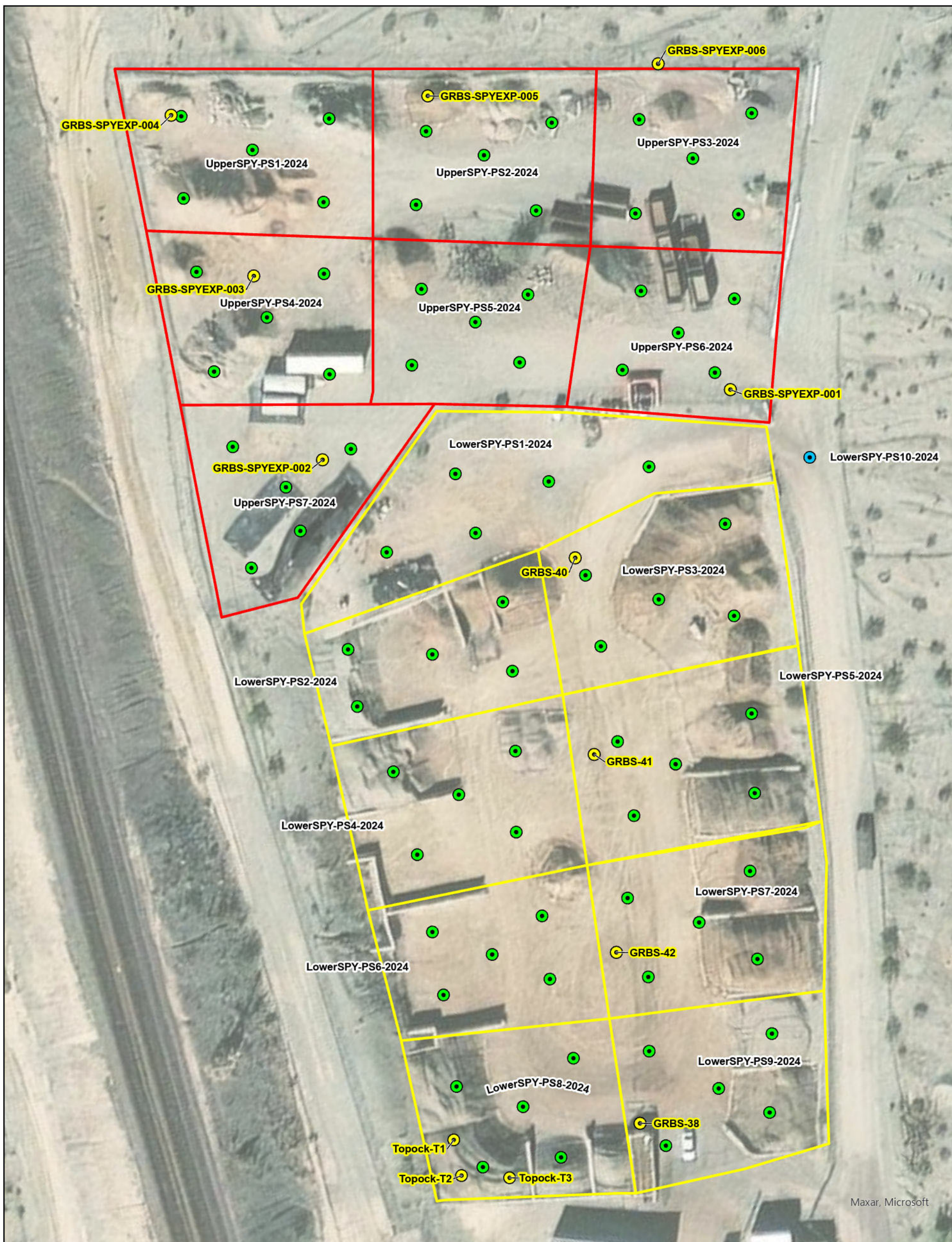
Please call me at (628) 219-4369 if you have any questions regarding this notification.

Sincerely,



John Glass
Chromium Remediation Principal

CH2M HILL, Inc. (CH2M). 2009. *Final Soil Background Technical Memorandum at Pacific Gas and Electric Company Topock Compressor Station, Needles, California*. May 15.



Legend

- Proposed Composite Soil Sample Location
- Proposed Discrete Sampling Location
- Baseline Soil Sample Location
- Upper SPY Sampling Unit
- Lower SPY Sampling Unit



0 50 100 Feet

FIGURE 1
Proposed Sampling Locations
 Post-Stockpile Confirmation Soil Sampling
 PG&E Topock Compressor Station,
 Needles, California

From: [Dickerson, Veronica L](#)
To: [Glass, John](#); [Aaron Yue](#); [Baker, Karen@DTSC](#); [Meyers, Richard J](#); "Linda Otero, Fort Mohave"; [Nora McDowell \(NoraMcDowell@fortmojave.com\)](#); "Leo S. Leonhart, Hargis & Associates"; "tcraft350c@yahoo.com"; "Ronald Escobar"; "chem.waterquality@gmail.com"; "culturalres@cocopah.com"; [calisay17](#); [Edgardo Castillo](#); [Steven Escobar](#); [cit.enviroassistant@gmail.com](#); [Lyndee Hornell](#); [critthpo@crit-nsn.gov](#); [Bryan Etsitty](#); [pems.edev@cit-nsn.gov](#); [wqtech.epa@cit-nsn.gov](#); [Toni Carlyle](#); [Jill McCormick](#); [Smith, Jeffery B](#); [meggers](#); [prucha](#); [Tony Rossi](#); [Ruben Sanchez](#); [Michael Long](#); [Potor, Augustine P](#); [Dawn Duncan-Hubbs](#); [Bruce, Bonni D](#); [Amber Warden](#); [ericrosenblum](#); [Walt McNab, Jr.](#); [dbonamici@critdoj.com](#); [rena.vanfleet](#)
Cc: [Bonnett, Kristina](#); [Diaz, David](#); [CH2MHILL EIR Compliance Topock](#); [Sheets, Keith](#); [Reynolds, Michael](#); [Rosenberg, Josh](#); [Hong, Christina](#); [Darcangelo, Jennifer](#)
Subject: Re: [EXTERNAL] PG&E Topock NTCRA - Post NTCRA SPY sampling plan
Date: Friday, February 9, 2024 7:49:57 AM

DOI approves the submittal provided by PG&E. The details for the Post-Stockpile Confirmation Soil Sampling are being conducted in accordance with Section 2.3.3.1 of the Final Soil Non-Time Critical Removal Action Work Plan (Soil NTCRA Work Plan) dated June 2022.

Veronica Dickerson
Environmental Compliance and Cleanup Division (ECCD)
Office of Environmental Policy and Compliance (OEPC)
US Department of Interior

440-665-0915

For Department/Bureau Staff:
[Contaminated Sites Initiative \(CSI\) Portal](#)

From: Glass, John <F2G5@pge.com>
Sent: Thursday, February 8, 2024 10:18 PM
To: Dickerson, Veronica L <veronica_dickerson@ios.doi.gov>; Aaron Yue <Aaron.Yue@dtsc.ca.gov>; Baker, Karen@DTSC <Karen.Baker@dtsc.ca.gov>; Meyers, Richard J <richard_meyers@fws.gov>; 'Linda Otero, Fort Mohave' <LindaOtero@fortmojave.com>; Nora McDowell (NoraMcDowell@fortmojave.com) <NoraMcDowell@fortmojave.com>; 'Leo S. Leonhart, Hargis & Associates' <LLeonhart@hargis.com>; 'tcraft350c@yahoo.com' <tcraft350c@yahoo.com>; 'Ronald Escobar' <ronetribe@yahoo.com>; 'chem.waterquality@gmail.com' <chem.waterquality@gmail.com>; 'culturalres@cocopah.com' <culturalres@cocopah.com>; [calisay17](#) <calisay17@hotmail.com>; [Edgardo Castillo](#) <cocopahtpm@gmail.com>; [Steven Escobar](#) <dir.epa@cit-nsn.gov>; [cit.enviroassistant@gmail.com](#) <cit.enviroassistant@gmail.com>; [Lyndee Hornell](#) <lhornell@ymail.com>; [critthpo@crit-nsn.gov](#) <critthpo@crit-nsn.gov>; [Bryan Etsitty](#) <bsetsitty@gmail.com>; [pems.edev@cit-nsn.gov](#) <pems.edev@cit-nsn.gov>; [wqtech.epa@cit-nsn.gov](#) <wqtech.epa@cit-nsn.gov>; [Toni Carlyle](#) <toni.carlyle@crit-nsn.gov>; [Jill McCormick](#) <historicpreservation@quechantribe.com>; [Smith, Jeffery B](#) <JefferySmith@usbr.gov>; [meggers](#) <meggers@egggersenv.com>; [prucha](#) <prucha@integratedhydro.com>; [Tony Rossi](#) <TROSSI@HARGIS.COM>; [Ruben Sanchez](#) <RSanchez@HARGIS.COM>; [Michael Long](#) <mlong@HARGIS.COM>; [Potor, Augustine P](#) <apotor@blm.gov>; [Dawn Duncan-Hubbs](#) <dawn@sunriseconsultation.com>; [Bruce, Bonni D](#) <bbruce@blm.gov>; [Amber Warden](#) <awarden@hargis.com>; [eric rosenblum](#) <ericrosenblum@hotmail.com>; [Walt McNab, Jr.](#)

<walt.mcnab@gmail.com>; dbonamici@critdoj.com <dbonamici@critdoj.com>; rena.vanfleet
<rena.vanfleet@crit-nsn.gov>

Cc: Bonnett, Kristina <KABY@pge.com>; Diaz, David <D3D6@pge.com>; CH2MHILL EIR Compliance
Topock <EIRComplianceTopock@jacobs.com>; Sheets, Keith <Keith.Sheets@jacobs.com>; Reynolds,
Michael <Michael.Reynolds@jacobs.com>; Rosenberg, Josh <Josh.Rosenberg@jacobs.com>; Hong,
Christina/LAC <Christina.Hong@jacobs.com>; Darcangelo, Jennifer <J5D8@pge.com>; Glass, John
<F2G5@pge.com>

Subject: [EXTERNAL] PG&E Topock NTCRA - Post NTCRA SPY sampling plan

**This email has been received from outside of DOI - Use caution before clicking on
links, opening attachments, or responding.**

Hi Veronica,

Please see the attached NTCRA Soil Processing Yard Post-Stockpile Confirmation Soil Sampling Plan
and sampling map. Let me know if you have any questions.

Regards,

John Glass

Pacific Gas and Electric Co

C: 628-219-4369

You can read about PG&E's data privacy practices at [PGE.com/privacy](https://www.pge.com/privacy).

From: [Glass, John](#)
To: [Dickerson, Veronica L](#); [Aaron Yue](#); [Baker, Karen@DTSC](#); [Meyers, Richard J](#); ["Linda Otero, Fort Mohave"](#); [Nora McDowell \(NoraMcDowell@fortmojave.com\)](#); ["Leo S. Leonhart, Hargis & Associates"](#); ["tcraft350c@yahoo.com"](#); ["Ronald Escobar"](#); ["chem.waterquality@gmail.com"](#); ["culturalres@cocopah.com"](#); [calisay17](#); [Edgardo Castillo](#); [Steven Escobar](#); [cit.enviroassistant@gmail.com](#); [Lyndee Hornell](#); [critthpo@crit-nsn.gov](#); [Bryan Etsitty](#); [pems.edev@cit-nsn.gov](#); [wqtech.epa@cit-nsn.gov](#); [Toni Carlyle](#); [Jill McCormick](#); [Smith, Jeffery B](#); [meggers](#); [prucha](#); [Tony Rossi](#); [Ruben Sanchez](#); [Michael Long](#); [Potor, Augustine P](#); [Dawn Duncan-Hubbs](#); [Bruce, Bonni D](#); [Amber Warden](#); [ericrosenblum](#); [Walt McNab, Jr.](#); [dbonamici@critdoj.com](#); [rena.vanfleet](#)
Cc: [Bonnert, Kristina](#); [Diaz, David](#); [CH2MHILL EIR Compliance Topock](#); [Sheets, Keith](#); [Reynolds, Michael](#); [Rosenberg, Josh](#); [Hong, Christina](#); [Darcangelo, Jennifer](#); [Glass, John](#)
Subject: [EXTERNAL] PG&E Topock NTCRA - Post NTCRA SPY Sampling Plan Proposed Revision
Date: Tuesday, February 27, 2024 8:20:52 PM
Attachments: [Re EXTERNAL PGE Topock NTCRA - Post NTCRA SPY sampling plan.msg](#)
[SPY_SamplingMap_Rev1_27Feb24.pdf](#)

Hello Veronica,

PG&E is proposing a revision to the Post-Stockpile Confirmation Soil Sampling Plan approved by the DOI on February 9, 2024 (attached is the approval). PG&E is proposing smaller sampling units that would provide increased sampling frequency and therefore present a more conservative approach than required in the Soil NTCRA Work Plan.

Proposed Revision

For purposes of confirmation sampling, the Upper and Lower SPY have been digitally segmented into 29 sampling units versus 16 sampling units originally proposed and approved. The additional sampling units provides more data coverage of the areas used for soil stockpiling and related waste management activities. The Lower SPY has been divided into 22 sampling units. A subset of the sampling units in the Lower SPY represents each of the 15 designated stockpile stalls (areas delineated by concrete block walls). Stall 6 on the northeast of the Lower SPY has been split into Stall 6 North and Stall 6 South due to its large size (LowerSPY-PS6N-2024 and LowerSPY-PS6S-2024). In addition to the 15 stalled designated sampling units, the stockpile area in the northwest of the Lower SPY, has been designated as Stall 16 (LowerSPY-PS16-2024). The area in the center of the Lower SPY, used for truck access and soil screening operations, has been divided into five sampling units (LowerSPY-PS17-2024 through LowerSPY-PS21-2024). These resulting sampling units range from approximately 500 to 8,000 square feet, which are smaller more conservative than the Soil NTCRA Work Plan approved size of 10,000 square feet. The Upper SPY confirmation sampling is unchanged has been evenly divided into 7 approximately 10,000 square feet sampling units. The attached Figure 1 presents the revised sampling unit layout for the SPY.

No other changes are being proposed.

Please let me know if you have any questions.

John Glass

Pacific Gas and Electric Co
Program Manager

C: 628-219-4369

From: [Dickerson, Veronica L](#)
To: [Glass, John](#); [Aaron Yue](#); [Baker, Karen@DTSC](#); [Meyers, Richard J](#); "Linda Otero, Fort Mohave"; [Nora McDowell \(NoraMcDowell@fortmojave.com\)](#); "Leo S. Leonhart, Hargis & Associates"; "tcraft350c@yahoo.com"; "Ronald Escobar"; "chem.waterquality@gmail.com"; "culturalres@cocopah.com"; [calisay17](#); [Edgardo Castillo](#); [Steven Escobar](#); [cit.enviroassistant@gmail.com](#); [Lyndee Hornell](#); [critthpo@crit-nsn.gov](#); [Bryan Etsitty](#); [pems.edev@cit-nsn.gov](#); [wqtech.epa@cit-nsn.gov](#); [Toni Carlyle](#); [Jill McCormick](#); [Smith, Jeffery B](#); [meggers](#); [prucha](#); [Tony Rossi](#); [Ruben Sanchez](#); [Michael Long](#); [Potor, Augustine P](#); [Dawn Duncan-Hubbs](#); [Bruce, Bonni D](#); [Amber Warden](#); [ericrosenblum](#); [Walt McNab, Jr.](#); [dbonamici@critdoj.com](#); [rena.vanfleet](#)
Cc: [Bonnert, Kristina](#); [Diaz, David](#); [CH2MHILL EIR Compliance Topock](#); [Sheets, Keith](#); [Reynolds, Michael](#); [Rosenberg, Josh](#); [Hong, Christina](#); [Darcangelo, Jennifer](#)
Subject: Re: [EXTERNAL] PG&E Topock NTCRA - Post NTCRA SPY sampling plan
Date: Friday, February 9, 2024 7:48:44 AM

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DOI approves the submittal provided by PG&E. The details for the Post-Stockpile Confirmation Soil Sampling are being conducted in accordance with Section 2.3.3.1 of the Final Soil Non-Time Critical Removal Action Work Plan (Soil NTCRA Work Plan) dated June 2022.

Veronica Dickerson
Environmental Compliance and Cleanup Division (ECCD)
Office of Environmental Policy and Compliance (OEPC)
US Department of Interior

440-665-0915

For Department/Bureau Staff:
[Contaminated Sites Initiative \(CSI\) Portal](#)

From: Glass, John <F2G5@pge.com>
Sent: Thursday, February 8, 2024 10:18 PM
To: Dickerson, Veronica L <veronica_dickerson@ios.doi.gov>; Aaron Yue <Aaron.Yue@dtsc.ca.gov>; Baker, Karen@DTSC <Karen.Baker@dtsc.ca.gov>; Meyers, Richard J <richard_meyers@fws.gov>; 'Linda Otero, Fort Mohave' <LindaOtero@fortmojave.com>; Nora McDowell (NoraMcDowell@fortmojave.com) <NoraMcDowell@fortmojave.com>; 'Leo S. Leonhart, Hargis & Associates' <LLeonhart@hargis.com>; 'tcraft350c@yahoo.com' <tcraft350c@yahoo.com>; 'Ronald Escobar' <ronetribe@yahoo.com>; 'chem.waterquality@gmail.com' <chem.waterquality@gmail.com>; 'culturalres@cocopah.com' <culturalres@cocopah.com>; [calisay17](#) <calisay17@hotmail.com>; [Edgardo Castillo](#) <cocopahtpm@gmail.com>; [Steven Escobar](#) <dir.epa@cit-nsn.gov>; [cit.enviroassistant@gmail.com](#) <cit.enviroassistant@gmail.com>; [Lyndee Hornell](#) <lhornell@ymail.com>; [critthpo@crit-nsn.gov](#) <critthpo@crit-nsn.gov>; [Bryan Etsitty](#) <bsetsitty@gmail.com>; [pems.edev@cit-nsn.gov](#) <pems.edev@cit-nsn.gov>; [wqtech.epa@cit-nsn.gov](#) <wqtech.epa@cit-nsn.gov>; [Toni Carlyle](#) <toni.carlyle@crit-nsn.gov>; [Jill McCormick](#)

<historicpreservation@quechantribe.com>; Smith, Jeffery B <JefferySmith@usbr.gov>; meggers <meggers@eggerv.com>; prucha <prucha@integratedhydro.com>; Tony Rossi <TROSSI@HARGIS.COM>; Ruben Sanchez <RSanchez@HARGIS.COM>; Michael Long <mlong@HARGIS.COM>; Potor, Augustine P <apotor@blm.gov>; Dawn Duncan-Hubbs <dawn@sunriseconsultation.com>; Bruce, Bonni D <bbruce@blm.gov>; Amber Warden <awarden@hargis.com>; eric rosenblum <ericrosenblum@hotmail.com>; Walt McNab, Jr. <walt.mcnab@gmail.com>; dbonamici@critdoj.com <dbonamici@critdoj.com>; rena.vanfleet <rena.vanfleet@crit-nsn.gov>

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Subject: [EXTERNAL] PG&E Topock NTCRA - Post NTCRA SPY sampling plan

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hi Veronica,

Please see the attached NTCRA Soil Processing Yard Post-Stockpile Confirmation Soil Sampling Plan and sampling map. Let me know if you have any questions.

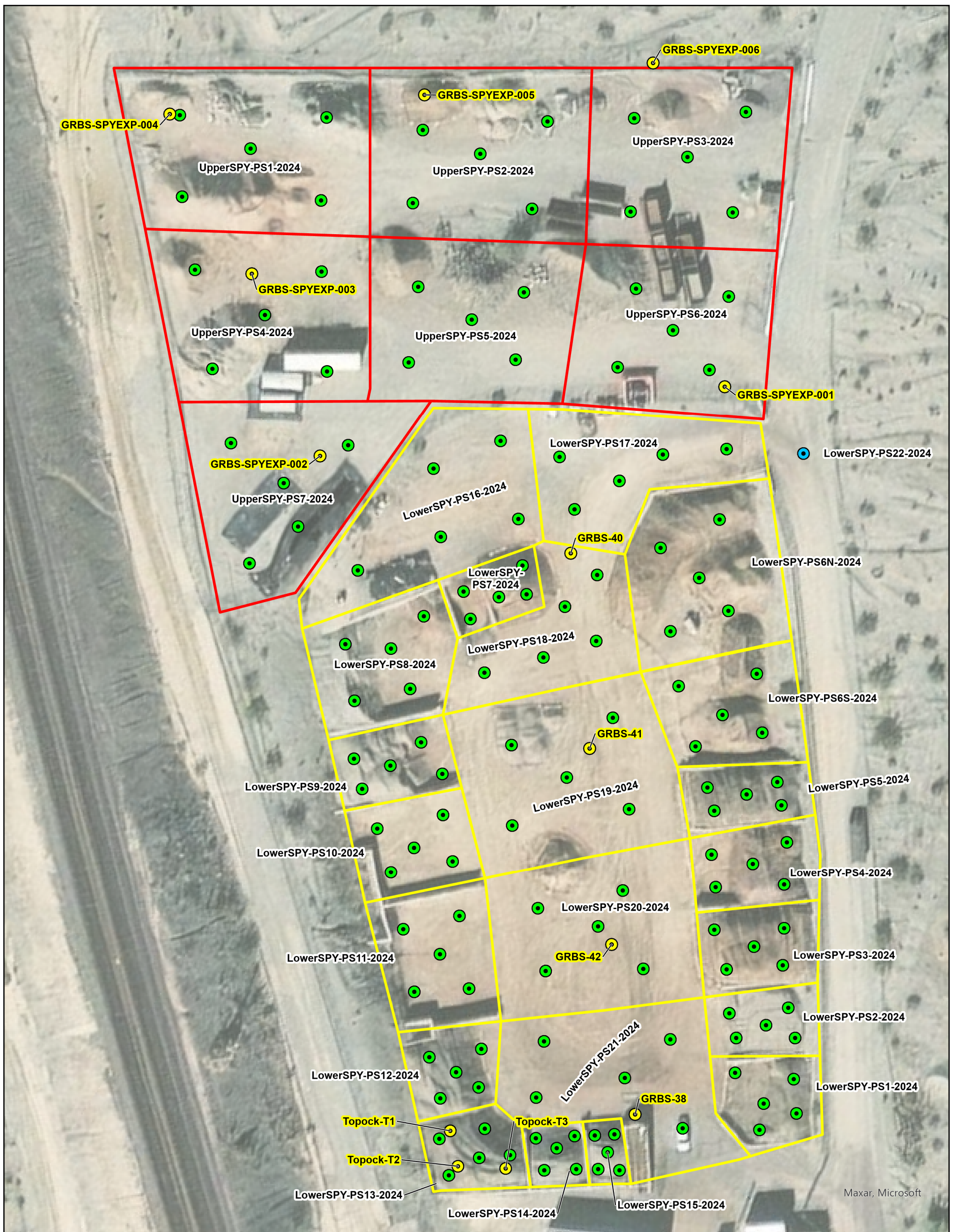
Regards,

John Glass

Pacific Gas and Electric Co

C: 628-219-4369

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Legend

- Proposed Composite Soil Sample Location
- Proposed Discrete Sampling Location
- Baseline Soil Sample Location
- ▭ Upper SPY Sampling Unit
- ▭ Lower SPY Sampling Unit

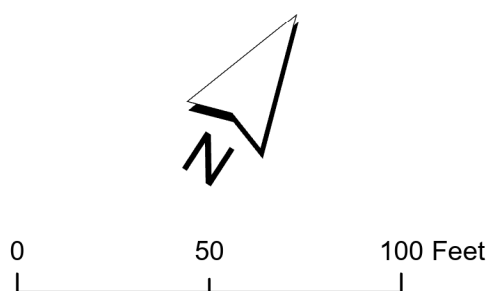


FIGURE 1
Proposed Sampling Locations
 Post-Stockpile Confirmation Soil Sampling
 PG&E Topock Compressor Station,
 Needles, California

From: [Dickerson, Veronica L](#)
To: [Glass, John](#); [Aaron Yue](#); [Baker, Karen@DTSC](#); [Meyers, Richard J](#); "Linda Otero, Fort Mohave"; [Nora McDowell \(NoraMcDowell@fortmojave.com\)](#); "Leo S. Leonhart, Hargis & Associates"; "tcraft350c@yahoo.com"; "Ronald Escobar"; "chem.waterquality@gmail.com"; "culturalres@cocopah.com"; [calisay17](#); [Edgardo Castillo](#); [Steven Escobar](#); [cit.enviroassistant@gmail.com](#); [Lyndee Hornell](#); [critthpo@crit-nsn.gov](#); [Bryan Etsitty](#); [pems.edev@cit-nsn.gov](#); [wqtech.epa@cit-nsn.gov](#); [Toni Carlyle](#); [Jill McCormick](#); [Smith, Jeffery B](#); [meggers](#); [prucha](#); [Tony Rossi](#); [Ruben Sanchez](#); [Michael Long](#); [Potor, Augustine P](#); [Dawn Duncan-Hubbs](#); [Bruce, Bonni D](#); [Amber Warden](#); [ericrosenblum](#); [Walt McNab, Jr.](#); [dbonamici@critdoj.com](#); [rena.vanfleet](#)
Cc: [Bonnett, Kristina](#); [Diaz, David](#); [CH2MHILL EIR Compliance Topock](#); [Sheets, Keith](#); [Reynolds, Michael](#); [Rosenberg, Josh](#); [Hong, Christina](#); [Darcangelo, Jennifer](#)
Subject: Re: [EXTERNAL] PG&E Topock NTCRA - Post NTCRA SPY Sampling Plan Proposed Revision
Date: Thursday, February 29, 2024 7:14:09 AM

Hi John,

DOI appreciates the additional sampling efforts proposed by PG&E and therefore, approves the revision as outlined in the email.

Veronica Dickerson
Environmental Compliance and Cleanup Division (ECCD)
Office of Environmental Policy and Compliance (OEPC)
US Department of Interior

440-665-0915

For Department/Bureau Staff:

[Contaminated Sites Initiative \(CSI\) Portal](#)

From: Glass, John <F2G5@pge.com>

Sent: Tuesday, February 27, 2024 10:18 PM

To: Dickerson, Veronica L <veronica_dickerson@ios.doi.gov>; Aaron Yue <Aaron.Yue@dtsc.ca.gov>; Baker, Karen@DTSC <Karen.Baker@dtsc.ca.gov>; Meyers, Richard J <richard_meyers@fws.gov>; 'Linda Otero, Fort Mohave' <LindaOtero@fortmojave.com>; Nora McDowell (NoraMcDowell@fortmojave.com) <NoraMcDowell@fortmojave.com>; 'Leo S. Leonhart, Hargis & Associates' <LLeonhart@hargis.com>; 'tcraft350c@yahoo.com' <tcraft350c@yahoo.com>; 'Ronald Escobar' <ronetribe@yahoo.com>; 'chem.waterquality@gmail.com' <chem.waterquality@gmail.com>; 'culturalres@cocopah.com' <culturalres@cocopah.com>; [calisay17](#) <calisay17@hotmail.com>; [Edgardo Castillo](#) <cocopahtpm@gmail.com>; [Steven Escobar](#) <dir.epa@cit-nsn.gov>; [cit.enviroassistant@gmail.com](#) <cit.enviroassistant@gmail.com>; [Lyndee Hornell](#) <lhornell@ymail.com>; [critthpo@crit-nsn.gov](#) <critthpo@crit-nsn.gov>; [Bryan Etsitty](#) <bsetsitty@gmail.com>; [pems.edev@cit-nsn.gov](#) <pems.edev@cit-nsn.gov>; [wqtech.epa@cit-nsn.gov](#) <wqtech.epa@cit-nsn.gov>; [Toni Carlyle](#) <toni.carlyle@crit-nsn.gov>; [Jill McCormick](#) <historicpreservation@quechantribe.com>; [Smith, Jeffery B](#) <JefferySmith@usbr.gov>; [meggers](#) <meggers@egggersenv.com>; [prucha](#) <prucha@integratedhydro.com>; [Tony Rossi](#) <TROSSI@HARGIS.COM>; [Ruben Sanchez](#) <RSanchez@HARGIS.COM>; [Michael Long](#) <mlong@HARGIS.COM>; [Potor, Augustine P](#) <apotor@blm.gov>; [Dawn Duncan-Hubbs](#) <dawn@sunriseconsultation.com>; [Bruce, Bonni D](#) <bbruce@blm.gov>; [Amber Warden](#) <awarden@hargis.com>; [eric rosenblum](#) <ericrosenblum@hotmail.com>; [Walt McNab, Jr.](#)

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Subject: [EXTERNAL] PG&E Topock NTCRA - Post NTCRA SPY Sampling Plan Proposed Revision

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Hello Veronica,

PG&E is proposing a revision to the Post-Stockpile Confirmation Soil Sampling Plan approved by the DOI on February 9, 2024 (attached is the approval). PG&E is proposing smaller sampling units that would provide increased sampling frequency and therefore present a more conservative approach than required in the Soil NTCRA Work Plan.

Proposed Revision

For purposes of confirmation sampling, the Upper and Lower SPY have been digitally segmented into 29 sampling units versus 16 sampling units originally proposed and approved. The additional sampling units provides more data coverage of the areas used for soil stockpiling and related waste management activities. The Lower SPY has been divided into 22 sampling units. A subset of the sampling units in the Lower SPY represents each of the 15 designated stockpile stalls (areas delineated by concrete block walls). Stall 6 on the northeast of the Lower SPY has been split into Stall 6 North and Stall 6 South due to its large size (LowerSPY-PS6N-2024 and LowerSPY-PS6S-2024). In addition to the 15 stalled designated sampling units, the stockpile area in the northwest of the Lower SPY, has been designated as Stall 16 (LowerSPY-PS16-2024). The area in the center of the Lower SPY, used for truck access and soil screening operations, has been divided into five sampling units (LowerSPY-PS17-2024 through LowerSPY-PS21-2024). These resulting sampling units range from approximately 500 to 8,000 square feet, which are smaller more conservative than the Soil NTCRA Work Plan approved size of 10,000 square feet. The Upper SPY confirmation sampling is unchanged has been evenly divided into 7 approximately 10,000 square feet sampling units. The attached Figure 1 presents the revised sampling unit layout for the SPY.

No other changes are being proposed.

Please let me know if you have any questions.

John Glass

Pacific Gas and Electric Co

Program Manager

C: 628-219-4369

From: [Glass, John](#)
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Cc: [Bonnett, Kristina](#); [Diaz, David](#); [CH2MHILL EIR Compliance Topock](#); [Sheets, Keith](#); [Reynolds, Michael](#); [Rosenberg, Josh](#); [Hong, Christina](#); [Darcangelo, Jennifer](#); [Glass, John](#)
Subject: [EXTERNAL] PG&E NTCRA - Addendum to Post-Stockpile Confirmation Soil Sampling Work Plan
Date: Monday, April 1, 2024 7:26:13 PM
Attachments: [TPK NTCRA PostStockpile Confirmation Sampling Addendum 20240401.pdf](#)

Hello Veronica,

The attached Addendum to Post-Stockpile Confirmation Soil Sampling Work Plan provides additional details specific to data evaluation for Post-Stockpile Confirmation Soil Sampling at the SPY being conducted as part of the Soil Non-Time Critical Removal Action (NTCRA). The Post-Stockpile Confirmation Soil Sampling Plan was approved by the DOI on February 9, 2024. A revision to the plan was approved on February 29, 2024.

Upon completion of stockpiling activities, soil samples are being collected from locations of former stockpiles located in the Soil Processing Yard (SPY). Sampling is being conducted to confirm that stockpile contents have been removed and that soils beneath the former stockpiles are not impacted by Soil NTCRA activities.

As described in the Post-Stockpile Confirmation Soil Sampling Plan analytical data from samples collected within the SPY will be compared to both the Topock Soil Background concentrations (CH2M HILL, 2009) and the results of baseline soil samples collected in September 2018 and 2022. Baseline samples at the SPY were not analyzed for dioxin/furans.

Since baseline samples were not analyzed for dioxin/furans and the SPY remains an active soil management area for the groundwater remedy PG&E proposes that the approved Topock Groundwater Remedy Soil Management Plan (SMP) soil management levels be used in-place of the absent baseline and 2017 background concentrations for dioxin/furans. The soil management levels are used to determine if soil can be reused onsite. The levels for dioxins/furans are risk-based levels and considered reasonable and appropriate for SPY restoration goals. PG&E proposes the use of the lowest 2022 soil management TEQ of 83 ng/kg (human).

PG&E is requesting an approval to the attached Addendum to Post-Stockpile Confirmation Soil Sampling Work Plan.

Regards,

John Glass

Pacific Gas and Electric Co
Program Manager

C: 628-219-4369

You can read about PG&E's data privacy practices at [PGE.com/privacy](https://www.pge.com/privacy).



**Pacific Gas and Electric
Company**

John Glass, Chromium Remediation Principal
Consultant
300 Lakeside Drive
Oakland CA 94612
(628) 219-4369 (cell)
F2G5@pge.com

April 1, 2024

Veronica Dickerson
US Department of the Interior
4316 Nichols Road
Medina, Ohio 44256

Subject: Soil Non-Time Critical Removal Action Work Plan:
Addendum to Post-Stockpile Confirmation Soil Sampling, Pacific Gas and Electric Company
Topock Compressor Station, Needles, California

Dear Ms. Dickerson:

This submittal provides additional details specific to data evaluation for Post-Stockpile Confirmation Soil Sampling being conducted as part of the Soil Non-Time Critical Removal Action (NTCRA). The Post-Stockpile Confirmation Soil Sampling Plan was approved by the DOI on February 9, 2024. A revision to the plan was approved on February 29, 2024.

Upon completion of stockpiling activities, soil samples are being collected from locations of former stockpiles located in the Soil Processing Yard (SPY). Sampling is being conducted to confirm that stockpile contents have been removed and that soils beneath the former stockpiles are not impacted by Soil NTCRA activities.

As described in the Post-Stockpile Confirmation Soil Sampling Plan analytical data from samples collected within the SPY will be compared to both the Topock Soil Background concentrations (CH2M HILL, 2009) and the results of baseline soil samples collected in September 2018 and 2022. Baseline samples were not analyzed for dioxin/furans.

The 2017 Dioxin background study resulted in dioxin/furan TEQ values of 5.98 ng/kg (avian) and 5.58 ng/kg (mammal). Achieving these very low background concentrations will could likely result in significant over-excavation. Considering that dioxins/furans are ubiquitous and the SPY remains an active soil management area for the groundwater remedy, PG&E proposes that the approved Topock Groundwater Remedy Soil Management Plan (SMP) soil management levels be used in-place of background concentrations. The soil management levels are used to determine if soil can be reused onsite. The levels for dioxins/furans are risk-based levels and considered reasonable and appropriate for SPY restoration goals. PG&E proposes the use of the lowest 2022 soil management TEQ of 83 ng/kg (human).

In the event that analytical data suggests metals or dioxin/furan impacts at concentrations exceeding the background, baseline data, or SMP values, DOI will be notified. Additional soil removal and/or resampling of the impacted sampling unit may be proposed.

Please call me at (628) 219-4369 if you have any questions regarding this notification.

Sincerely,

A handwritten signature in black ink, appearing to read "John Glass", is centered on the page. The signature is written in a cursive style with a long, sweeping tail.

John Glass
Chromium Remediation Principal

CH2M HILL, Inc. (CH2M). 2009. *Final Soil Background Technical Memorandum at Pacific Gas and Electric Company Topock Compressor Station, Needles, California*. May 15.

From: [Dickerson, Veronica L](#)
To: [Glass, John](#); [Aaron Yue](#); [Baker, Karen@DTSC](#); [Meyers, Richard J](#); "Linda Otero, Fort Mohave"; [Nora McDowell \(NoraMcDowell@fortmojave.com\)](#); "Leo S. Leonhart, Hargis & Associates"; "tcraft350c@yahoo.com"; "Ronald Escobar"; "chem.waterquality@gmail.com"; "culturalres@cocopah.com"; [calisay17](#); [Edgardo Castillo](#); [Steven Escobar](#); [cit.enviroassistant@gmail.com](#); [Lyndee Hornell](#); [critthpo@crit-nsn.gov](#); [Bryan Etsitty](#); [pems.edev@cit-nsn.gov](#); [wqtech.epa@cit-nsn.gov](#); [Toni Carlyle](#); [Jill McCormick](#); [Smith, Jeffery B](#); [meggers](#); [prucha](#); [Tony Rossi](#); [Ruben Sanchez](#); [Michael Long](#); [Potor, Augustine P](#); [Dawn Duncan-Hubbs](#); [Bruce, Bonni D](#); [ericrosenblum](#); [Walt McNab, Jr.](#); [dbonamici@critdoj.com](#); [rena.vanfleet](#); [Ioan, Christopher@DTSC](#); [Greg Cranham, H&A](#); [Amanda Morris, H&A](#)
Cc: [Bonnett, Kristina](#); [Diaz, David](#); [CH2MHILL EIR Compliance Topock](#); [Sheets, Keith](#); [Reynolds, Michael](#); [Rosenberg, Josh](#); [Hong, Christina](#); [Darcangelo, Jennifer](#)
Subject: Re: [EXTERNAL] PG&E NTCRA - Addendum to Post-Stockpile Confirmation Soil Sampling Work Plan
Date: Tuesday, April 2, 2024 7:51:22 AM

Hi John,

DOI is in agreement with the approach. Without any site specific baseline information for dioxin/furans, it is reasonable and appropriate to utilize the soil management levels that have been identified to determine if soil can be reused onsite. The levels for dioxins/furans are risk-based levels and thereby appropriate for SPY restoration goals. Therefore, DOI agrees with the use of the lowest 2022 soil management TEQ of 83 ng/kg (human).

Veronica Dickerson
Environmental Compliance and Cleanup Division (ECCD)
Office of Environmental Policy and Compliance (OEPC)
US Department of Interior

440-665-0915

For Department/Bureau Staff:
[Contaminated Sites Initiative \(CSI\) Portal](#)

From: Glass, John <F2G5@pge.com>
Sent: Monday, April 1, 2024 9:25 PM
To: Dickerson, Veronica L <veronica_dickerson@ios.doi.gov>; Aaron Yue <Aaron.Yue@dtsc.ca.gov>; Baker, Karen@DTSC <Karen.Baker@dtsc.ca.gov>; Meyers, Richard J <richard_meyers@fws.gov>; 'Linda Otero, Fort Mohave' <LindaOtero@fortmojave.com>; Nora McDowell (NoraMcDowell@fortmojave.com) <NoraMcDowell@fortmojave.com>; 'Leo S. Leonhart, Hargis & Associates' <LLeonhart@hargis.com>; tcraft350c@yahoo.com <tcraft350c@yahoo.com>; 'Ronald Escobar' <ronetribe@yahoo.com>; 'chem.waterquality@gmail.com' <chem.waterquality@gmail.com>; 'culturalres@cocopah.com' <culturalres@cocopah.com>; calisay17 <calisay17@hotmail.com>; Edgardo Castillo <cocopahtpm@gmail.com>; Steven Escobar <dir.epa@cit-nsn.gov>; cit.enviroassistant@gmail.com <cit.enviroassistant@gmail.com>; Lyndee Hornell <lhornell@ymail.com>; critthpo@crit-nsn.gov <critthpo@crit-nsn.gov>; Bryan Etsitty <bsetsitty@gmail.com>; pems.edev@cit-nsn.gov <pems.edev@cit-nsn.gov>; wqtech.epa@cit-nsn.gov <wqtech.epa@cit-nsn.gov>; Toni Carlyle <toni.carlyle@crit-nsn.gov>; Jill McCormick

<historicpreservation@quechantribe.com>; Smith, Jeffery B <JefferySmith@usbr.gov>; meggers <meggers@eggervenv.com>; prucha <prucha@integratedhydro.com>; Tony Rossi <TROSSI@HARGIS.COM>; Ruben Sanchez <RSanchez@HARGIS.COM>; Michael Long <mlong@HARGIS.COM>; Potor, Augustine P <apotor@blm.gov>; Dawn Duncan-Hubbs <dawn@sunriseconsultation.com>; Bruce, Bonni D <bbruce@blm.gov>; eric rosenblum <ericrosenblum@hotmail.com>; Walt McNab, Jr. <walt.mcnab@gmail.com>; dbonamici@critdoj.com <dbonamici@critdoj.com>; rena.vanfleet <rena.vanfleet@crit-nsn.gov>; Ioan, Christopher@DTSC <Christopher.ioan@dtsc.ca.gov>; Greg Cranham, H&A <gcranham@hargis.com>; Amanda Morris, H&A <amorris@hargis.com>

Cc: Bonnett, Kristina <KABY@pge.com>; Diaz, David <D3D6@pge.com>; CH2MHILL EIR Compliance Topock <EIRComplianceTopock@jacobs.com>; Sheets, Keith <Keith.Sheets@jacobs.com>; Reynolds, Michael <Michael.Reynolds@jacobs.com>; Rosenberg, Josh <Josh.Rosenberg@jacobs.com>; Hong, Christina/LAC <Christina.Hong@jacobs.com>; Darcangelo, Jennifer <j5d8@pge.com>; Glass, John <F2G5@pge.com>

Subject: [EXTERNAL] PG&E NTCRA - Addendum to Post-Stockpile Confirmation Soil Sampling Work Plan

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hello Veronica,

The attached Addendum to Post-Stockpile Confirmation Soil Sampling Work Plan provides additional details specific to data evaluation for Post-Stockpile Confirmation Soil Sampling at the SPY being conducted as part of the Soil Non-Time Critical Removal Action (NTCRA). The Post-Stockpile Confirmation Soil Sampling Plan was approved by the DOI on February 9, 2024. A revision to the plan was approved on February 29, 2024.

Upon completion of stockpiling activities, soil samples are being collected from locations of former stockpiles located in the Soil Processing Yard (SPY). Sampling is being conducted to confirm that stockpile contents have been removed and that soils beneath the former stockpiles are not impacted by Soil NTCRA activities.

As described in the Post-Stockpile Confirmation Soil Sampling Plan analytical data from samples collected within the SPY will be compared to both the Topock Soil Background concentrations (CH2M HILL, 2009) and the results of baseline soil samples collected in September 2018 and 2022. Baseline samples at the SPY were not analyzed for dioxin/furans.

Since baseline samples were not analyzed for dioxin/furans and the SPY remains an active soil management area for the groundwater remedy PG&E proposes that the approved Topock Groundwater Remedy Soil Management Plan (SMP) soil management levels be used in-place of the absent baseline and 2017 background concentrations for dioxin/furans. The soil management levels are used to determine if soil can be reused onsite. The levels for dioxins/furans are risk-based levels

and considered reasonable and appropriate for SPY restoration goals. PG&E proposes the use of the lowest 2022 soil management TEQ of 83 ng/kg (human).

PG&E is requesting an approval to the attached Addendum to Post-Stockpile Confirmation Soil Sampling Work Plan.

Regards,

John Glass

Pacific Gas and Electric Co
Program Manager

C: 628-219-4369

You can read about PG&E's data privacy practices at [PGE.com/privacy](https://www.pge.com/privacy).

Appendix B

Permits and Notifications

Appendix B. Permits and Notifications

Soil NTCRA Completion Report

Topock Compressor Station, Needles, California

App #	Completion Report Text Section	Subject	Author/Sender	Documentation Title	Date
B-1	2.1.1	MDAQMD	William Irwin/AES	Notification of Demolition/Renovation #2023-ASB-107	4/17/2023
B-2			William Irwin/AES	Notification of Demolition/Renovation #2023-ASB-287	10/25/2023
B-3	2.1.1	Caltrans	PG&E	Consent for Access to Property to Implement Response Action Under CERCLA	8/12/2022
B-4			Caltrans	Encroachment Permit	8/12/2022
B-5			Caltrans	Encroachment Permit Rider	8/2/2023
B-6			Caltrans	Encroachment Permit Rider	10/19/2023
B-7			Caltrans	Encroachment Permit Rider	2/1/2024
B-8	2.1.1	ADOT	PG&E	Permit 1232588	11/1/2023
B-9	2.2.4	Upper SPY Expansion	John Glass/PG&E	PG&E Topock NTCRA - Request to handle NTCRA materials within the Upper SPY	9/14/2023
B-10			Jeffery Smith/USBR	PG&E Topock NTCRA - Request to handle NTCRA materials within the Upper SPY	9/18/2023
B-11			Veronica Dickerson/DOI	PG&E Topock NTCRA - Request to handle NTCRA materials within the Upper SPY	9/18/2023
B-12	3.9.2 and 3.11.2	Mesquite Tree Removal - AOC10 TAA2 and AOC10 TAA4	Christina Hong/Jacobs	PG&E Topock Soil NTCRA - Notification of Results of Discolored Materials Encountered at AOC 10 TAA 4 and Next Steps	8/20/2022
B-13			Christina Hong/Jacobs	PG&E Topock Soil NTCRA - Notification of Mesquite Tree Removal at AOC10 TAA4	8/30/2022
B-14			Veronica Dickerson/DOI	PG&E Topock Soil NTCRA - Notification of Mesquite Tree Removal at AOC10 TAA4	9/18/2022
B-15			Veronica Dickerson/DOI	Topock Soil NTCRA - Notification of Discolored Materials Encountered in AOC10 TAA2, Lab Results, and Proposed Next Steps	9/18/2022
B-16			Veronica Dickerson/DOI	Mesquite Tree follow-up	12/15/2022
B-17	3.12.2	AOC11 TAA1 Step-out Excavation	Veronica Dickerson/DOI	Update -- PG&E Topock Soil NTCRA - Notification of Results of Discolored Materials Encountered at AOC 11 and Next Steps	8/30/2022
B-18	3.13.3	AOC14 Asbestos Removal	AEG	Asbestos Debris Clean-up Work Plan	4/14/2023
B-19	3.13.3	AOC14 Asbestos Removal	AEG	Revised Asbestos Debris Clean-up Work Plan	10/16/2023

= number

ADOT = Arizona Department of Transportation

AEG = Advanced Environmental Group, Inc.

AES = Alliance Environmental Services, Inc.

AOC = area of concern

Caltrans = California Department of Transportation

CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act

DOI = U.S. Department of Interior

MDAQMD = Mojave Desert Air Quality Management District

NTCRA = non-time-critical removal action

PG&E = Pacific Gas and Electric

SPY = Soil Processing Yard

TAA = target action area

TCS = Topock Compressor Station

USBR = U.S. Bureau of Reclamation

6. Asbestos survey

Date: 2/16/23

Lab used: Amerisci

Procedure (include analytical method, if appropriate, used to detect the presence of asbestos material):

ACM PLM

Submit the completed survey with this form as indicated at the top of Page 1.

7. Asbestos amount to be removed:

	Friable/regulated ACM	Category 1 non-friable	Category 2 non-friable
Square feet	>100sq.ft		
Linear feet			
Cubic feet			

Description of friable/regulated ACM: Soil contaminated with >100sq.ft of Debris – Block Thermal System Insulation (TSI)

For this removal project and fee calculation, it is assumed that approximately 1300 cubic yard of soil containing friable asbestos will be removed.

35,100 Cubic Feet
C.M.

Asbestos material to remain in place (identify material and quantity):

None RACM _____ Cat 1 _____ Cat 2 _____

Describe the procedures to be followed in the event that unexpected asbestos is found or previously non-friable asbestos material becomes crumbled, pulverized, or reduced to powder:

Notify the onsite CAC to Sample. The Material will not be disturbed until identified.

7-A Asbestos fee calculation (ACM)

302(E)(2a) fee (square feet)	302(E)(2a) fee (linear feet)	302(E)(2a) fee (cubic feet)	Enter total fees below
\$	\$	\$	

7-B Asbestos fee calculation (regulated ACM per NESHAP)

Area	Linear Pipe (outside diameter > 2.35")	Linear Pipe (outside diameter <= 2.35")	Cubic	Enter total fees below
(square feet)	(linear feet)	(linear feet)	(cubic feet)	
a			35100	
b	(square feet) (3.14 x linear feet x D [inches])/12			
(total square feet a + b)				
302(E)(2) fee (square feet)	302(E)(2) fee (linear feet)	302(E)(2) fee (cubic feet)		Enter total fees below
\$	\$	\$ 9,444.00		

7-C Demolition fee calculation

302(E)(1) fee (square feet)	302(E)(1) fee (linear feet)	302(E)(1) fee (cubic feet)	Enter total fees below
\$	\$	\$	

Total fees

7-A total fees: \$ 9,444.00	7-B total fees: \$	7-C total fees: \$
-----------------------------	--------------------	--------------------

If completing 7-A and 7-C, **OR** 7-B and 7-C, add total fees from those entries and enter a complete total: \$ 9,444.00

8. Facility description

Building name: Topock Remedy project Soil Processing Yard		Parcel No.:
Address: 515 National Trails Highway,		
City, state, zip: Needles, CA		
Site location: 515 National Trails Highway, Needles, CA		
Building size: N/A soil stockpile removal only.	No. of floors:	Age (years):
Present use:	Prior use:	

9. Schedule details

Asbestos setup start date: 4/24/23		Asbestos setup start time: 6:00am
Asbestos removal start date: 4/25/23	Asbestos removal start time: 6:00am	Removal completed date: 5/5/23
Demolition/Renovation start date: N/A		Demolition/Renovation completed date:

10. Describe the planned demolition or renovation work, including methods to be used and a description of affected facility components

Removal method: Hand method Mechanical Glove bag Other: _____

Affected components: Two stockpiles of soil contaminated with >100sq.st of acm material.
Two stockpiles of soil contaminated with >100sq.st of acm material.

11. Describe the work practices and engineering controls used to prevent emissions of asbestos on site

Work practices: See attached work plan

Engineering controls: Fill containment
 Negative pressure
 Wet method Other: _____

12. Waste transporter

Name: MP Environmental Service Inc.
Address: 3400 Manor Street
City, state, zip: Bakersfield, CA 93308
Contact: Gina Blankenship
Phone: (661) 393-1151

13. Waste disposal site

Name: Republic Services' La Paz County Landfill
Address: 26999 Hwy 95, Mile Post 128,
City, state, zip: Parker, AZ 85344
Contact: Leanne Smith
Phone: 925-505-7414

For emergency project notification only**14. Ordered/emergency project** *(include a copy of the order)*

Agency name:	
Authorizing person:	Title:
Date of order:	Order start:

15. Nature of emergency

Date and hour of emergency:
Describe the unexpected event:
Explain how the event caused unsafe conditions or would cause equipment damage or an unreasonable financial burden:

Certification Under Penalty of Perjury

I certify that an individual trained in the provisions of this regulation (40 CFR, Part 61, Subpart M) will be on site during the stripping and removal described by this notification and evidence that the required training has been accomplished by this person will be available for inspection during the normal business hours. (Required 1 year after promulgation)

Signature of acknowledgment: **William Irwin**

Digitally signed by William Irwin
Date: 2023.04.17 09:49:56 -07'00'

Date: 4/17/23

The undersigned, under the penalty of law, states to the best of my knowledge, that all of the above information is true and correct.

Signature of Responsible Party: **William Irwin**
Digitally signed by William Irwin
Date: 2023 04 17 09:50:15 -07'00'

Official Title: President

Type or Print Name of Signer: William Irwin

Date: 4/17/23

Contact phone number and email address: 530-518-5056 willy@alliancehazmat.com

MOJAVE DESERT AIR QUALITY MANAGEMENT DISTRICT

BRAD POIRIEZ, EXECUTIVE DIRECTOR

14306 Park Avenue, Victorville, CA 92392-2310

760.245.1661 • Fax 760.245.2022

Email: asbestos@mdaqmd.ca.gov

www.MDAQMD.ca.gov • @MDAQMD



Notification of Demolition/Renovation

Submit this form, the asbestos survey and copy of payment to asbestos@mdaqmd.ca.gov. Refer to **Rule 302** for asbestos fee.

Signatures required on Page 4.

PLEASE TYPE OR PRINT

For District use only

CSLB license: 776274
License expiration: 3/31/25

Transaction ref. ID #: 401613999	Amount received: \$6,779.00	MDAQMD approval Mojave Desert AQMD Cleared for Demo/Reno By <i>[Signature]</i> Date 10/25/23
Company/Facility No. (if applicable): 15139		

1. Type of notification

Original Revised (highlight areas below that have been revised)

2. Facility owner

Name: Pacific Gas & Electric Company

Address: P.O. Box 7640 City, State, Zip: San Francisco CA.

Contact name and title: John Glass

Email: F2G5@pge.com Phone: 628-219-4369

3. Abatement contractor MDAQMD Permit No(s):

Name: Alliance Environmental Services Inc. Company/Facility No.: 1058/2807

Address: 3135 Rae Creek Dr. City, State, Zip: Chico Ca 95965

Contact name and title: William Irwin President /CAC

Email: willy@alliancehazmat.com Phone: 530-518-5056

4. Demolition/renovation contractor

Name: Alliance Environmental Services Inc.

Address: 3135 Rae Creek Dr. City, State, Zip: Chico Ca 95965

Contact name and title: William Irwin President /CAC

Email: willy@alliancehazmat.com Phone: 530-518-5056

5. Project type If applicable, select all that apply:

Demolition Emergency

Renovation Planned

Removal of Contaminated soil Ordered

By fire

6. Asbestos survey	Date: 2/16/23	Lab used: Amerisci
Procedure (include analytical method, if appropriate, used to detect the presence of asbestos material): ACM PLM		
Submit the completed survey with this form as indicated at the top of Page 1.		

7. Asbestos amount to be removed:			
	Friable/regulated ACM	Category 1 non-friable	Category 2 non-friable
Square feet	>100sq.ft		
Linear feet			
Cubic feet			
Description of friable/regulated ACM: Soil contaminated with >100sq.ft of Debris – Block Thermal System Insulation (TSI) *For this removal project and fee calculation, It is assumed that approximately 1300 cubic yard of soil containing friable asbestos will be removed.*			
Asbestos material to remain in place (identify material and quantity): <input checked="" type="checkbox"/> None <input type="checkbox"/> RACM _____ <input type="checkbox"/> Cat 1 _____ <input type="checkbox"/> Cat 2 _____			
Describe the procedures to be followed in the event that unexpected asbestos is found or previously non-friable asbestos material becomes crumbled, pulverized, or reduced to powder: Notify the onsite CAC to Sample. The Material will not be disturbed until identified.			

7-A Asbestos fee calculation (ACM)			
302(E)(2a) fee (square feet)	302(E)(2a) fee (linear feet)	302(E)(2a) fee (cubic feet)	Enter total fees below
\$	\$	\$	

7-B Asbestos fee calculation (regulated ACM per NESHAP)			
Area	Linear Pipe (outside diameter >2.35")	Linear Pipe (outside diameter <= 2.35")	Cubic
(square feet)	(linear feet)	(linear feet)	(cubic feet)
a			22,000
	(square feet) (3.14 x linear feet x D [inches])/12		
b			
(total square feet a + b)			
302(E)(2) fee (square feet)	302(E)(2) fee (linear feet)	302(E)(2) fee (cubic feet)	Enter total fees below
\$	\$	\$ 6,779.00	

7-C Demolition fee calculation			
302(E)(1) fee (square feet)	302(E)(1) fee (linear feet)	302(E)(1) fee (cubic feet)	Enter total fees below
\$	\$	\$	

Total fees		
7-A total fees: \$	7-B total fees: \$ 6,779.00	7-C total fees: \$
If completing 7-A and 7-C, OR 7-B and 7-C, add total fees from those entries and enter a complete total: \$ 6,779.00		

8. Facility description

Building name: Topock Remedy project Soil Processing Yard		Parcel No.:
Address: West bound lane of I-40, near Park Moabi Rd Exit Needles, CA 92363		
City, state, zip: Needles, CA		
Site location: 515 West bound lane of I-40, near Park Moabi Rd Exit Needles, CA 92363		
Building size: N/A soil stockpile removal only.	No. of floors:	Age (years):
Present use:	Prior use:	

9. Schedule details

Asbestos setup start date: 11/6/23		Asbestos setup start time: 7:00am
Asbestos removal start date: 11/7/23	Asbestos removal start time: 7:00am	Removal completed date: 11/20/22
Demolition/Renovation start date: N/A		Demolition/Renovation completed date:

10. Describe the planned demolition or renovation work, including methods to be used and a description of affected facility components

Removal method: Hand method Mechanical Glove bag Other: _____

Affected components: soil contaminated with >100sq.st of acm material.
soil contaminated with >100sq.st of acm material.

11. Describe the work practices and engineering controls used to prevent emissions of asbestos on site

Work practices: See attached work plan

Engineering controls: Fill containment
 Negative pressure
 Wet method Other: _____

12. Waste transporter

Name: MP Environmental Service Inc.
Address: 3400 Manor Street
City, state, zip: Bakersfield, CA 93308
Contact: Gina Blankenship
Phone: (661) 393-1151

13. Waste disposal site

Name: Republic Services' La Paz County Landfill
Address: 26999 Hwy 95, Mile Post 128,
City, state, zip: Parker, AZ 85344
Contact: Leanne Smith
Phone: 925-505-7414

————— For emergency project notification only —————

14. Ordered/emergency project *(include a copy of the order)*

Agency name:	
Authorizing person:	Title:
Date of order:	Order start:

15. Nature of emergency

Date and hour of emergency:

Describe the unexpected event:

Explain how the event caused unsafe conditions or would cause equipment damage or an unreasonable financial burden:

Certification Under Penalty of Perjury

I certify that an individual trained in the provisions of this regulation (40 CFR, Part 61, Subpart M) will be on site during the stripping and removal described by this notification and evidence that the required training has been accomplished by this person will be available for inspection during the normal business hours. (Required 1 year after promulgation)

Signature of acknowledgment: **William Irwin**

Digitally signed by William Irwin
Date: 2023.04.17 09:49:56 -07'00'

Date: 10/13/23

The undersigned, under the penalty of law, states to the best of my knowledge, that all of the above information is true and correct.

Signature of Responsible Party: **William Irwin**

Digitally signed by William Irwin
Date: 2023.04.17 09:50:15 -07'00'

Official Title: President

Type or Print Name of Signer: William Irwin

Date: 10/13/23

Contact phone number and email address: 530-518-5056 willy@alliancehazmat.com



**CONSENT FOR ACCESS TO PROPERTY TO IMPLEMENT RESPONSE ACTION
UNDER THE COMPREHENSIVE ENVIRONMENTAL RESPONSE,
COMPENSATION, AND LIABILITY ACT ("CERCLA")**

Property Owner: State of California, Department of Transportation ("Caltrans")

Property Address: Topock Project Site, in eastern San Bernardino County, about 12 miles southeast of the city of Needles, California, south of Interstate 40, and one-half mile west of the Colorado River

Environmental investigation and groundwater monitoring have been under way at the Topock Project Site (the "Site"), which consists of the Pacific Gas and Electric Company ("PG&E") Topock Compressor Station (the "Station") and adjacent land, since 1997. The U.S. Department of the Interior ("DOI") and the California Department of Toxic Substances Control are the lead governmental agencies overseeing PG&E's actions to protect the Colorado River and to clean up soil and groundwater contamination near the Station.

PG&E is undertaking response action and conducting soil investigation and remedial activities at the Site under the authority of CERCLA pursuant to an agreement with DOI. The Site is in eastern San Bernardino County, about 12 miles southeast of the city of Needles, California, south of Interstate 40, and one-half mile west of the Colorado River. The Site is surrounded by land owned by PG&E, the Fort Mojave Indian Tribe, BNSF Railroad, and the federal government, including the Havasu National Wildlife Refuge (the "Refuge") managed by the U.S. Fish and Wildlife Service, and lands owned and/or managed by the U.S. Bureau of Reclamation and the Bureau of Land Management.

Areas where contamination either has impacted or may impact federal lands have been identified. DOI issued an Approval Memorandum that contemplated a potential removal action to protect the Refuge. DOI directed PG&E to prepare a Draft Engineering Evaluation/Cost Analysis ("EE/CA"). The purpose of an EE/CA is to evaluate the need for a non-time critical removal action ("NTCRA") on federal lands or at locations where contamination has the potential to migrate to federal land. DOI responded to public comments and directed PG&E to revise the Draft EE/CA. PG&E then prepared the Final EE/CA. DOI thereafter prepared and approved an Action Memorandum for the NTCRA.

PG&E determined it is necessary to acquire access to certain property (the "Property") owned by Caltrans. The Property is depicted on the attached map (Attachment 1). This agreement authorizes PG&E to enter the Property to conduct the Soil NTCRA, Potential Action Area # 1 in AOC 14 and Potential Action Area # 1 in AOC 1, as depicted toward the top of Attachment 1. The Soil

NTCRA will not involve installation of any infrastructure in Caltrans' Right of Way. PG&E will be excavating and removing contaminated soil and debris and disposing in an approved permitted landfill.

Caltrans consents to officers, employees, agents, DOI, DOI's contractors, DTSC, tribes and authorized representatives of PG&E entering and having continued access to the Property for the following purposes:

1. Physical entry, including but not limited to foot and vehicular traffic, for ingress and egress to and from the Property to excavate/remove contaminated soil and debris; and
2. Other action that PG&E determines is necessary to conduct the Soil NTCRA.

PG&E agrees that:

1. Any PG&E contractor/subcontractor working on the Property will meet insurance and bid bond requirements consistent with the Federal Acquisition Regulations, including, without limitation, that PG&E and/or its contractors/subcontractors will name Caltrans as an additional insured under its standard Commercial General Liability policy for the Soil NTCRA;
2. No parties other than PG&E, its contractors, its subcontractors, DOI, DOI's contractors, DTSC, tribes and other authorized representatives of PG&E may enter the Property or perform work on the Property under this agreement;
3. PG&E will consult with Caltrans at least two days before commencing work and will obtain Caltrans' prior written concurrence with the schedule for conducting the Soil NTCRA on the Property;
4. PG&E will document conditions on the Property before conducting the Soil NTCRA and will repair to pre-excavation/removal conditions any damage to the Property caused by PG&E, its contractors, its subcontractors, and other authorized representatives of PG&E;
5. PG&E may store equipment or materials on the Property when work is not being performed so long that the equipment or material is not within the Clear Recovery Zone (30 LF);
6. PG&E will provide notice to Underground Service Alert ("USA"), or another regional notification center, at least 48 hours before performing any excavation work on the Property;

7. PG&E officers, employees, agents, contractors, subcontractors, and authorized representatives will wear orange vests, shirts, or jackets, as appropriate, when performing work on the Property; and
8. By providing access to the Property, Caltrans waives no rights, claims, or defenses it may otherwise have that are not expressly addressed by this agreement.

Caltrans understands that the excavation/removal of contaminated soil and debris authorized by this agreement are undertaken by PG&E under the response action authority of Section 104 of CERCLA, which authorizes PG&E to obtain access to and undertake response action on property adjacent to land under PG&E's jurisdiction at which a release or threatened release of a hazardous substance has or may have occurred.

I certify that I am authorized by Caltrans to provide PG&E with access to the Property and that this access is given by me voluntarily with knowledge of my right to refuse and without threats or promises of any kind not contained within this agreement.

CALIFORNIA DEPARTMENT OF TRANSPORTATION

By:  Name: Ramakrishna R. Tadi, PhD., P.E.
 Title: District Permit Engineer
 Date: 08/12/2022

I have read and fully understand this agreement. I certify that I am authorized by PG&E to bind PG&E to the terms, rights, and responsibilities contained within this agreement.

PACIFIC GAS AND ELECTRIC COMPANY

By:  Name: DAVID DIAZ
 Title: SITE OPERATIONS MANAGER
 Date: 8-11-2022

ATTACHMENT 1

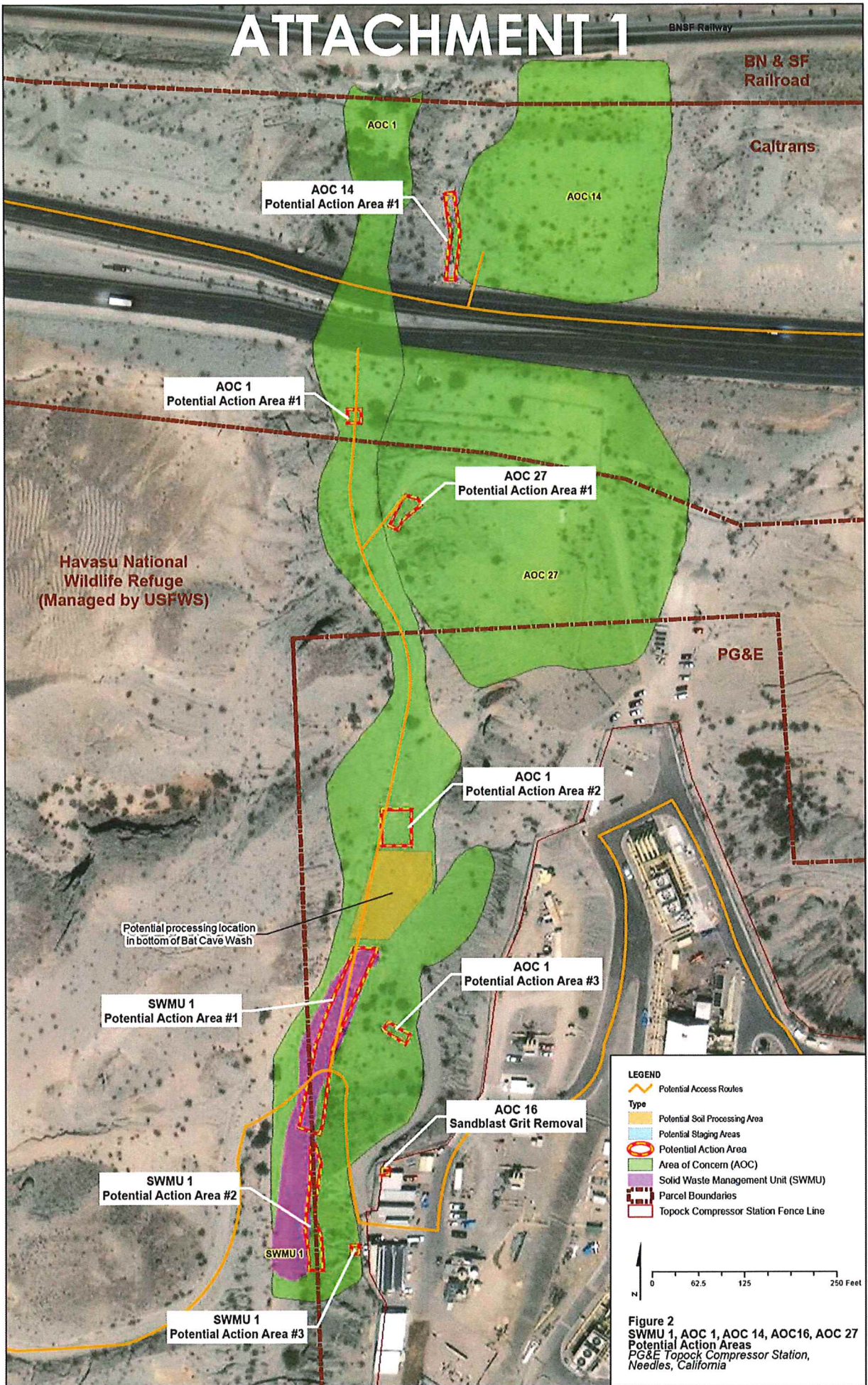


Figure 2
 SWMU 1, AOC 1, AOC 14, AOC 16, AOC 27
 Potential Action Areas
 PG&E Topock Compressor Station,
 Needles, California

ENCROACHMENT PERMIT

TR-0120 (REV. 6/2012)

Permit No.	
08-22-N-UT-0838	
Dist/Co/Rte/PM	
08-SBD-40, PM R154.34/R154.34	
Permit Approval Date	
08/12/2022	
Fee Paid	Deposit
\$ EXEMPT	\$ EXEMPT
Performance Bond Amount (1)	Payment Bond Amount (2)
\$ 0.00	\$ 0.00
Bond Company	
Bond Number (1)	Bond Number (2)

In compliance with (Check one):

- Your application of June 9, 2022
- Utility Notice No. _____ of _____
- Agreement No. _____ of _____
- R/W Contract No. _____ of _____

TO: Pacific Gas and Electric
PO Box 337
Needles, CA 92363

Attn: David Diaz 760-903-3013

, PERMITTEE

and subject to the following, PERMISSION IS HEREBY GRANTED to:

Enter Interstate 40 (I-40) right of way adjacent to Colorado River, in the City of Needles, to remove and replace contaminated soil, perform traffic control and access Caltrans right of way as per plans date stamped 4/20/2022 and signed access agreement date stamped 8/12/2022 by Caltrans District 8 Encroachment Permit Office, and/or to the satisfaction of the Caltrans Representative.

Caltrans maintenance unit will perform traffic control for this project and PG&E will be billed for the work.

A pre-job meeting with the assigned Caltrans Representative, Jorge Ochoa, 213-317-0293, is required at least 7 days prior to start of any work under this permit. Failure to do so may result in permit revocation with no prejudice.

THIS PERMIT IS NOT A PROPERTY RIGHT AND DOES NOT TRANSFER WITH THE PROPERTY TO A NEW OWNER.

The following attachments are also included as part of this permit (Check applicable):

- Yes No General Provisions
- Yes No Utility Maintenance Provisions
- Yes No Storm Water Special Provisions
- Yes No Special Provisions
- Yes No A Cal-OSHA permit, if required: Permit No. _____
- Yes No As-Built Plans Submittal Route Slip for Locally Advertised Projects
- Yes No Storm Water Pollution Prevention Plan / Water Pollution Control Plan

In addition to fee, the permittee will be billed actual costs for:

- Yes No Review
- Yes No Inspection
- Yes No Field Work



(if any Caltrans effort expended)

- Yes No The information in the environmental documentation has been reviewed and considered prior to approval of this permit.

This permit is void unless the work is completed before February 12, 2023

This permit is to be strictly construed and no other work other than specifically mentioned is hereby authorized.

No project work shall be commenced until all the other necessary permits and the environmental clearances have been obtained.

PERMIT ENGINEER: Noura Saqqa COPIES TO: Maintenance: Needles (2361 / 663) Inspector: Jorge Ochoa Superintendent: Joanna Lopez	APPROVED:
	 Diane Morales, District Director
	BY:
	 RAMAKRISHNA TADI, PHD, P.E., District Permit Engineer

ADA Notice

For individuals with sensory disabilities, this document is available in alternate formats. For alternate format information, contact the Forms Management Unit at (916) 445-1233, TTY 711, or write to Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

FM 91 1436 (D8 Permit App.)

In addition to the attached General Provisions, the following checked special provisions are applicable:

A PRE-JOB MEETING WITH THE ASSIGNED CALTRANS REPRESENTATIVE, Jorge Ochoa, 909-383-4020 AT LEAST 7 DAYS IS REQUIRED PRIOR TO START OF ANY WORK UNDER THIS PERMIT. FAILURE TO DO SO WILL RESULT IN PERMIT CANCELLATION AND RESUBMITTAL MAY BE REQUIRED.

Notwithstanding General Provision #4, your contractor is required to apply for and obtain an encroachment permit prior to starting work. A fee/deposit of \$ for inspection, and \$ for electrical equipment is required at the time of application.

You are required to submit an approved Storm Water Pollution Prevention Plan (SWPPP) for projects with a cumulative disturbed soil area equal or greater than 1 acre, and an approved Water Pollution Control Program (WPCP) for projects with a disturbed soil area less than 1 acre, unless otherwise required by other agencies (RWQCBs, U.S. Army Corps of Engineers, Department of Fish and Game, etc.).

Upon the expiration of this permit, the Permittee is required to apply for the countywide annual maintenance permit for this new facilities installed under the Permit No.: .

The Permittee is required to apply for a separate permit to maintain and/or replace in kind of these facilities on each occurrence upon the expiration of this permit.

The Permittee shall provide the stage construction traffic handling plans, work schedule and a list of all sub-contractors to the Department's Representative at the time of the pre-construction meeting or prior to start construction.

All traffic control, signing and striping shall comply with California MUTCD 2014. It is available at: http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/ca_mutcd.htm

Permittee and his/her contractors shall comply with Department 2018 Standard Specifications, Department 2018 Standard Plans, and all the latest revisions implemented as of this permit issued date, and the project specific special provisions for Oversight Projects and Streamlined Oversight Projects. It is the responsibility of the permittee and his/her contractors to verify with the Department Standard Plans, Standard Specifications, and all the latest revisions as of this permit issued date before ordering any materials for the project within the Department Right-Of-Way. The Department Standard Plans, Standard Specifications, and the Revisions are available at: <http://www.dot.ca.gov/hq/esc/oe/standards.php>

Permittee and/or permittee's authorized contractor/agent are required and responsible to identify the Department's underground electrical systems before performing any excavation work within the right of way.

All personnel shall wear hard hats and ANSI class II / III garments as appropriate while on State property.

The Permittee's work shall be subordinated to any operations which the Department may conduct and shall not delay, nor interfere with the Department's Forces or Department's Contractors.

Attention is directed to Standard Specifications Section 7-1.11, Preservation of Property, and Business and

Professions Code, Section 8771. The Permittee shall physically inspect the work site and locate survey monuments prior to work commencement. Monuments shall be referenced or reset in accordance with the Business and Professions Code.

Except for installing, maintaining and removing traffic control devices, any work encroaching within 3 feet of the edge of a traffic lane for areas with a posted speed limit below 45mph, or 6 feet of the edge of a traffic lane, for areas with a speed limit posted at 45mph or higher, shall require closing of the adjacent traffic lane. Permittee shall notify the Department's Representative, and obtain approval of, all traffic control, lane closures or detours, at least seven (7) WORKING DAYS prior to setting up of any traffic control.

No lane may be closed or obstructed at any time unless specifically allowed per the encroachment permit, shown in approved traffic control plans, and/or as directed by the Department's Representative.

Traffic control is generally authorized between 9:00 AM and 3:00 PM only on Monday through Thursday and until 1:00 PM on Fridays, excluding holidays except specified in the Permit. Lane closure is not allowed on Saturdays, Sundays and designated holidays. The designated holidays are: January 1st, the third Monday in January, the second and third Mondays in February, March 31, the last Monday in May, July 4th, the first Monday in September, the second Monday in October, November 11th, Thanksgiving Day, the day after Thanksgiving Day, and December 25th. When a fixed holiday falls on Saturday, the preceding Friday shall be designated as holiday.

Should any deviation from these procedures or conditions be observed, all work shall be suspended until satisfactory steps have been taken to ensure compliance.

If time extension is necessary, a request for time extension and the accompanying attachments must be made a minimum of two (2) weeks prior to completion date stated on face of permit. If work has not been started before completion date, the permit will be voided. Failure to comply with rules and regulations stated on permit will jeopardize future permit privileges.

"AS-BUILT" PLANS ARE REQUIRED UPON COMPLETION OF ALL WORK. PLEASE REFER TO THE GENERAL PROVISION TR-0045, ITEM 22 FOR THE "AS-BUILT" REQUIREMENTS. NO FINAL INSPECTION WILL BE PERFORMED UNTIL THE DEPARTMENT IS IN RECEIPT OF "AS-BUILT" PLANS.

No vehicle or equipment shall be stored overnight within the right of way; it shall be removed immediately at the completion of the day's work. Refueling of vehicle or equipment within the right of way is strictly prohibited.

Required traffic control devices shall be installed around fixed objects to warn the motoring public for safety. Personal vehicles of the contractor shall not be parked within freeway right of way.

No materials or waste shall be stockpiled within State right of way.

Except as specifically provided herein, all requirements of the Vehicle Code and other applicable laws must be complied with in all particulars.

When traffic cones or delineators are used to delineate a temporary edge of traffic lane, the line of cones or delineators shall be considered to be the edge of the traffic lane. The permittee shall not reduce the width of the existing lane to less than 10 feet without written approval from the Department's Representative.

Excavations made within the limits of the right of way shall be backfilled and resurfaced to original condition

before leaving the work area unless otherwise authorized by the Department's Representative.

All trenches repair shall comply with ENCROACHMENT PERMIT TRENCH DETAIL, TR-0153 or to the satisfaction of the Department's Representative.

Permittee shall be responsible for arranging the services of a qualified traffic control contractor to provide any needed traffic control.

The permittee shall arrange a meeting between his field representative, traffic control contractor, Department's Representative and/or CHP at least two (2) weeks prior to start of any work covered under this permit to arrange date and time of starting work and determine appropriate methods of handling traffic. At least 3 working days notice shall be given to the Caltrans representative and/or the CHP, prior to the meeting to allow time to arrange for attendance.

A copy of this permit, complete with all attachments, shall be kept by permittee/contractor working under this permit and must be shown to the Department Permit Inspector, Department's Representatives, or Law Enforcement Officer, on demand.

The permittee shall be responsible for notifying the appropriate utility companies or underground service alert prior to any excavation work.

The permittee shall notify the California Highway Patrol Area Commander at least 72 hours prior to implementing traffic control.

When the work area encroaches upon a sidewalk, walkway, or crosswalk area, special consideration must be given to pedestrian safety. Protective barricades, fencing, handrails and bridges, together with warning and guidance devices and signs must be utilized so that the passageway for pedestrians, especially blind and other physically handicapped, is safe and well defined and shown on the approved permit plan.

Pedestrian walkways and canopies within State Right of Way shall comply with the requirements of the applicable local agency or of the latest edition of the Uniform Building Code whichever contains the higher standards.

[For City or County projects with utility relocations:]

If existing public or private utilities conflict with the construction PROJECT, PERMITTEE will make necessary arrangements with the owners of such utilities for their protection, relocation, or removal. PERMITTEE shall inspect the protection, relocation, or removal of such facilities. Total costs of such protection, relocation, or removal which STATE or PERMITTEE must legally pay, will be borne by PERMITTEE. If any protection, relocation, or removal of utilities is required, including determination of liability for cost, such work shall be performed in accordance with STATE policy and procedure. PERMITTEE shall require any utility company performing relocation work in the STATE's right-of-way to obtain a State Encroachment Permit before the performance of said relocation work. Any relocated utilities shall be correctly located and identified on the as-built plans.

[For other projects with utility relocations:]

If existing public or private utilities conflict with the construction PROJECT, PERMITTEE will make necessary arrangements with the owners of such utilities for their protection, relocation, or removal. PERMITTEE shall inspect the protection, relocation, or removal of such facilities. Total costs of such protection, relocation, or

removal shall be borne by PERMITTEE in compliance with the terms of the Highway Encroachment Permits, Case Law, Public Utility Regulations, and Property Rights. PERMITTEE shall require any utility company performing relocation work in the STATE's right-of-way to obtain a State Encroachment Permit before the performance of said relocation work. Any relocated utilities shall be correctly located and identified on the as-built plans.

PERMIT NO.: 08-22-N-UT-0838

CO/RTE/PM: 08-SBD-40-R154.34

PRECONSTRUCTION MEETING AGREEMENT

I, _____, acting as an authorized agent for the permittee, _____, do hereby agree to personally accomplish or have another designated person arrange for all involved company representatives to attend a pre-construction meeting with the authorized Department's Representative at _____, as specified on this permit. Such meeting must be held two (2) days or more prior to the planned start of the work on this project. The Authorized Department's Representative shall have complete authority to determine whether the permit conditions, either implied or written, have been complied with. The Department's Representative may then allow the permit work to proceed as appropriate. The Pre-construction Meeting Record below must be signed by both the Department's Representative and the permittee before the permit work may start.

I have read and understand the attached General Provisions TR-0045 and other attached provisions of this permit.

This agreement or a copy thereof, must be mailed back to the Department's District 8 Encroachment Permit Office at 464 W. 4th. Street, MS 619, San Bernardino, CA 92401-1400, within three (3) working days prior to the pre-construction meeting. Failure to return this form could delay the release of your bonds. A copy of this document shall be at the job site at all times when work is in progress and failure to do so may result in the suspension of work, as directed by the Department's Representative.

It is the permittee's responsibility to insure that the Department's Representative is notified of work completion and that the attached Completion Notice is mailed to the Department's Permit office.

Signature Date

Print or Type Name

Position or Title

PRECONSTRUCTION MEETING RECORD

Department's Representative

Date

Permittee's Representative

Date

Date Work May Begin: _____

**SERVICE AUTHORITY FOR FREEWAY EMERGENCIES (SAFE)
ACTION REQUEST FOR CALL BOXES**

TR-0167 (Rev. 4/98)

Before any work affecting call boxes, please complete this form and fax or mail it at least two weeks in advance to the appropriate county **SAFE!**

DATE _____

<input type="checkbox"/> For Riverside County call boxes: Phone Number: (951) 787-7141 Fax Number: (951) 787-7920	Mr. Jerry Rivera, RCTC SAFE Manager 4080 Lemon Street, 3rd Floor Riverside, CA 92502
<input type="checkbox"/> For San Bernardino Call Boxes: Phone Number: (909) 884-8276, ext. 140 Fax Number: (909) 388-2002	Kelly Lynn, San Bernardino SAFE Manager 1170 W. 3rd Street, 2nd Floor San Bernardino, CA 92410-1715

FROM (Contact Name and Organization)

- Permittee*
 Construction
 Maintenance
 Right of Way Utilities
 Caltrans
- *SAFE may charge Permittee for cost of

ADDRESS

CITY		STATE	ZIP
BUSINESS PHONE (Include Area Code)	FAX PHONE (Include Area Code)	NUMBER OF PAGES INCLUDING THIS COVER PAGE	

ACTION NEEDED: IF THERE IS A CALL BOX PAIR, BOTH BOXES MAY BE AFFECTED! CALL BOX NUMBERS MUST BE INCLUDED (The number is shown on the call box sign, for example SBd-010-93 for a box on WB (because last number is odd), Route 10 at Post Mile 9, first Quarter Mile.)

Call Box Number(s): _____

- Temporary removal from service: **Bagging ONLY** - needed by _____
(if K-Rail will block access or the shoulder will be too narrow during construction only)
- Temporary removal of **box and pole ONLY** - needed by _____
(if K-Rail will block access or the shoulder will be too narrow during construction only)
- Removal of **box, pole, pad, auger, and any retaining walls** needed by _____
- Relocation - **needed by** _____
(if MBGR, etc., will permanently affect/block access)
- Place call boxes back in service.

ENCROACHMENT PERMIT GENERAL PROVISIONS

TR – 0045 (REV. 04/2021)

1. **AUTHORITY:** The California Department of Transportation (“Department”) has authority to issue encroachment permits under Division 1, Chapter 3, Article 1, Sections 660 through 734 of the Streets and Highways Code.
2. **REVOCACTION:** Encroachment permits are revocable on five (5) business days’ notice unless otherwise stated on the permit and except as provided by law for public corporations, franchise holders, and utilities. Notwithstanding the foregoing, in an emergency situation as determined by the Department, an encroachment permit may be revoked immediately. These General Provisions and any applicable Special Provisions are subject to modification or abrogation by the Department at any time. Permittees’ joint use agreements, franchise rights, reserved rights or any other agreements for operating purposes in State of California (“State”) highway right-of-way may be exceptions to this revocation.
3. **DENIAL FOR NONPAYMENT OF FEES:** Failure to pay encroachment permit fees when due may result in rejection of future applications and denial of encroachment permits.
4. **ASSIGNMENT:** This encroachment permit allows only the Permittee or Permittee’s authorized agent to work within or encroach upon the State highway right-of-way, and the Permittee may not assign or transfer this encroachment permit. Any attempt to assign or transfer this encroachment permit shall be null and void.
5. **ACCEPTANCE OF PROVISIONS:** Permittee understands and agrees to accept and comply with these General Provisions, the Special Provisions, any and all terms and/or conditions contained in or incorporated into the encroachment permit, and all attachments to the encroachment permit (collectively “the Permit Conditions”), for any encroachment, work, and/or activity to be performed under this encroachment permit and/or under color of authority of this encroachment permit. Permittee understands and agrees the Permit Conditions are applicable to and enforceable against Permittee as long as the encroachment remains in, under, or over any part of the State highway right-of-way.
6. **BEGINNING OF WORK:** When traffic is not impacted (see General Provision Number 35), the Permittee must notify the Department’s representative two (2) business days before starting permitted work. Permittee must notify the Department’s representative if the work is to be interrupted for a period of five (5) business days or more, unless otherwise agreed upon. All work must be performed on weekdays during regular work hours, excluding holidays, unless otherwise specified in this encroachment permit.
7. **STANDARDS OF CONSTRUCTION:** All work performed within State highway right-of-way must conform to all applicable Departmental construction standards including but not limited to: Standard Specifications, Standard Plans, Project Development Procedures Manual, Highway Design Manual and Special Provisions.
Other than as expressly provided by these General Provisions, the Special Provisions, the Standard Specifications, Standard Plans, and other applicable Departmental standards, nothing in these General Provisions is intended to give any third party any legal or equitable right, remedy, or claim with respect to the encroachment permit and/or to these General Provisions or any provision herein. These General Provisions are for the sole and exclusive benefit of the Permittee and the Department.
Where reference is made in such standards to “Contractor” and “Engineer,” these are amended to be read as “Permittee” and “Department’s representative,” respectively, for purposes of this encroachment permit.
8. **PLAN CHANGES:** Deviations from plans, specifications, and/or the Permit Conditions as defined in General Provision Number 5 are not allowed without prior approval from the Department’s representative and the Federal Highway Administration (“FHWA”) representative if applicable.
9. **RIGHT OF ENTRY, INSPECTION AND APPROVAL:** All work is subject to monitoring and inspection. The United States, the State, the Department, and the Directors, officers, employees, agents, and/or contractors of the State and/or of the Department, and other state, and federal agencies, and the FHWA, through their agents or representatives, must have full access to highway facilities/encroachment area, at any and all times for the purpose of inspection, maintenance, activities needed for construction/reconstruction, and operation of the State highway right-of-way.
Upon completion of work, Permittee must request a final inspection for acceptance and approval by the Department. The local public agency Permittee must not give final construction approval to its contractor until final acceptance and approval by the Department is obtained.
10. **PERMIT AT WORKSITE:** Permittee must keep the permit package or a copy thereof at the work site at all times and must show it upon request to any Department representative or law enforcement officer. If the permit package, or a copy thereof, is not kept and made available at the work site at all times, the work must be suspended.
11. **CONFLICTING ENCROACHMENTS:** Permittee must yield start of work to ongoing, prior authorized work adjacent to or within the limits of the Permittee’s project site. When existing encroachments conflict with Permittee’s work, the Permittee must bear all cost for rearrangements (e.g., relocation, alteration, removal, etc.).

ENCROACHMENT PERMIT GENERAL PROVISIONS

- 12. PERMITS AND APPROVALS FROM OTHER PUBLIC AGENCIES AND/OR ENTITIES:** This encroachment permit is invalidated if the Permittee has not obtained all permits and approvals necessary and required by law, including but not limited to permits from the California Public Utilities Commission (“CPUC”), California Occupational Safety and Health Administration (“Cal-OSHA”), and any other public agency and/or entity having jurisdiction. Permittee warrants all such permits and approvals have been obtained before beginning work under this encroachment permit. The Department may, at the Department’s discretion, require the Permittee to demonstrate that Permittee has obtained all such permits/approvals, and Permittee shall demonstrate this at the time and in the manner specified by the Department.
- 13. PEDESTRIAN AND BICYCLIST SAFETY:** A safe continuous passageway must be maintained through the work area at existing pedestrian or bicycle facilities. At no time must pedestrians be diverted onto a portion of the street used for vehicular traffic. At locations where safe alternate passageways cannot be provided, appropriate signs and barricades must be installed at the limits of construction and in advance of the limits of construction at the nearest crosswalk or intersection to detour pedestrians to facilities across the street. Attention is directed to Section 7-1.04 “Public Safety,” and to Section 12-4.04 “Temporary Pedestrian Access Routes,” and to Section 16-2.02 “Temporary Pedestrian Facility,” of the Department’s Standard Specifications, and to California Vehicle Code section 21760, subdivision (c).
- 14. PUBLIC TRAFFIC CONTROL:** The Permittee must provide traffic control protection, warning signs, lights, safety devices, etc., and take all other measures necessary for the traveling public’s safety as required by law and/or the Department. While providing traffic control, the needs of all road users, including but not limited to motorists, bicyclists and pedestrians, including persons with disabilities in accordance with the Americans with Disabilities Act, must be an essential part of the work activity.
- Lane, Bike Lane, Sidewalk, Crosswalk, and/or shoulder closures must comply with the Department’s Standard Specifications and Standard Plans for Temporary Traffic Control Systems & Temporary Pedestrian Access Routes, and with the applicable Special Provisions. Where issues are not addressed in the Standard Specifications, Standard Plans, and/or Special Provisions, the California Manual on Uniform Traffic Control Devices (Part 6, Temporary Traffic Control) must be followed.
- 15. MINIMUM INTERFERENCE WITH TRAFFIC:** Permittee must plan and conduct work so as to create the least possible inconvenience to the traveling public (motorized vehicles, unmotorized vehicles such as bicycles, pedestrians, person(s) with disabilities, etc.), such that traffic is not unreasonably delayed.
- 16. STORAGE OF EQUIPMENT AND MATERIALS:** The storage of equipment or materials is not allowed within State highway right-of-way, unless specified within the Special Provisions of this encroachment permit. If encroachment permit Special Provisions allow for the storage of equipment or materials within the State highway right-of-way, the equipment and material storage must also comply with Section 7-1.04, Public Safety, of the Department’s Standard Specifications.
- 17. CARE OF DRAINAGE:** Permittee must provide alternate drainage for any work interfering with an existing drainage facility in compliance with the Department’s Standard Specifications, Standard Plans, and/or as directed by the Department’s representative.
- 18. RESTORATION AND REPAIRS IN STATE HIGHWAY RIGHT-OF-WAY:** Permittee is responsible for restoration and repair of State highway right-of-way resulting from permitted work (Streets and Highways Code, section 670 et seq.).
- 19. STATE HIGHWAY RIGHT-OF-WAY CLEAN UP:** Upon completion of work, Permittee must remove and dispose of all scraps, refuse, brush, timber, materials, etc. off the State highway right-of-way. The aesthetics of the highway must be as it was before work started or better.
- 20. COST OF WORK:** Unless stated otherwise in the encroachment permit or a separate written agreement with the Department, the Permittee must bear all costs incurred for work within the State highway right-of-way and waives all claims for indemnification or contribution from the United States, the State, the Department, and from the Directors, officers, and employees of the State and/or the Department. Removal of Permittee’s personal property and improvements shall be at no cost to the United States, the State, and the Department.
- 21. ACTUAL COST BILLING:** When specified in the permit, the Department will bill the Permittee actual costs at the currently set Standard Hourly Rate for encroachment permits.
- 22. AS-BUILT PLANS:** When required, Permittee must submit one (1) set of folded as-built plans within thirty (30) calendar days after completion and acceptance of work in compliance with requirements listed as follows:
- Upon completion of the work provided herein, the Permittee must submit a paper set of As-Built plans to the Department’s representative.
 - All changes in the work will be shown on the plans, as issued with the permit, including changes approved by Encroachment Permit Rider.
 - The plans are to be prominently stamped or otherwise noted “AS-BUILT” by the Permittee’s representative who was responsible for overseeing the work. Any original plan that was approved with a Department stamp, or by signature of the Department’s representative, must be used for producing the As-Built plans.
 - If construction plans include signing or striping, the dates of signing or striping removal, relocation, or installation must be shown on the As-Built plans when required as a condition of the encroachment permit. When the construction plans show signing and striping for staged construction on separate sheets,

ENCROACHMENT PERMIT GENERAL PROVISIONS

- the sheet for each stage must show the removal, relocation, and installation dates of the appropriate staged striping and signing.
- e) As-Built plans must contain the Encroachment Permit Number, County, Route, and Post Mile on each sheet.
 - f) The As-Built Plans must not include a disclaimer statement of any kind that differs from the obligations and protections provided by sections 6735 through 6735.6 of the California Business and Professions Code. Such statements constitute non-compliance with Encroachment Permit requirements and may result in the Department retaining Performance Bonds or deposits until proper plans are submitted. Failure to comply may also result in denial of future encroachment permits or a provision requiring a public agency to supply additional bonding.
23. **PERMITS FOR RECORD PURPOSES ONLY:** When work in the State highway right-of-way is within an area under a Joint Use Agreement (JUA) or a Consent to Common Use Agreement (CCUA), a fee exempt encroachment permit is issued to the Permittee for the purpose of providing a notice and record of work. The Permittee's prior rights must be preserved without the intention of creating new or different rights or obligations. "Notice and Record Purposes Only" must be stamped across the face of the encroachment permit.
24. **BONDING:** The Permittee must file bond(s), in advance, in the amount(s) set by the Department and using forms acceptable to the Department. The bonds must name the Department as obligee. Failure to maintain bond(s) in full force and effect will result in the Department stopping all work under this encroachment permit and possibly revoking other encroachment permit(s). Bonds are not required of public corporations or privately-owned utilities unless Permittee failed to comply with the provisions and/or conditions of a prior encroachment permit. The surety company is responsible for any latent defects as provided in California Code of Civil Procedure section 337.15. A local public agency Permittee also must comply with the following requirements:
- a) In recognition that project construction work done on State property will not be directly funded and paid by State, for the purpose of protecting stop notice claimants and the interests of State relative to successful project completion, the local public agency Permittee agrees to require the construction contractor to furnish both a payment and performance bond in the local public agency's name with both bonds complying with the requirements set forth in Section 3-1.05 Contract Bonds of the Department's Standard Specifications before performing any project construction work.
 - b) The local public agency Permittee must defend, indemnify, and hold harmless the United States, the State and the Department, and the Directors, officers, and employees of the State and/or Department, from all project construction related claims by contractors, subcontractors, and suppliers, and from all stop notice and/or mechanic's lien claimants. The local public agency also agrees to remedy, in a timely manner and to the Department's satisfaction, any latent defects occurring as a result of the project construction work.
25. **FUTURE MOVING OF INSTALLATIONS:** Permittee understands and agrees to relocate a permitted installation upon notice by the Department. Unless under prior property right or agreement, the Permittee must comply with said notice at the Permittee's sole expense.
26. **ENVIRONMENTAL:**
- a) **ARCHAEOLOGICAL/HISTORICAL:** If any archaeological or historical resources are identified or encountered in the work vicinity, the Permittee must immediately stop work, notify the Department's representative, retain a qualified archaeologist who must evaluate the site at Permittee's sole expense, and make recommendations to the Department's representative regarding the continuance of work.
 - b) **HAZARDOUS MATERIALS:** If any hazardous waste or materials (such as underground storage tanks, asbestos pipes, contaminated soil, etc.) are identified or encountered in the work vicinity, the Permittee must immediately stop work, notify the Department's representative, retain a qualified hazardous waste/material specialist who must evaluate the site at the Permittee's sole expense, and make recommendations to the Department's representative regarding the continuance of work. Attention is directed to potential aerially deposited lead (ADL) presence in unpaved areas along highways. It is the Permittee's responsibility to take all appropriate measures to protect workers in conformance with California Code of Regulations Title 8, Section 1532.1, "Lead," and with Cal-OSHA Construction Safety Orders, and to ensure roadway soil management is in compliance with Department of Toxic Substances Control (DTSC) requirements.
 - c) **Biological:** If any regional, state, or federally listed biological resource is identified or encountered in the work vicinity, the Permittee must immediately stop work, notify the Department's representative, retain a qualified biologist who must evaluate the site at Permittee's sole expense, and make recommendations to the Department's representative regarding the continuance of work.
27. **PREVAILING WAGES:** Work performed by or under an encroachment permit may require Permittee's contractors and subcontractors to pay appropriate prevailing wages as set by the California Department of Industrial Relations. Inquiries or requests for interpretations relative to enforcement of prevailing wage requirements must be directed to the California Department of Industrial Relations.
28. **LIABILITY, DEFENSE, AND INDEMNITY:** The Permittee agrees to indemnify and save harmless the United States, the State, the Department, and the Directors, officers, employees, agents and/or contractors of the State and/or of the Department, including but not limited to the Director

ENCROACHMENT PERMIT GENERAL PROVISIONS

of Transportation and the Deputy Directors, from any and all claims, demands, damages, costs, liability, suits, or actions of every name, kind, and description, including but not limited to those brought for or on account of property damage, invasion of privacy, violation or deprivation of a right under a state or federal law, environmental damage or penalty, or injury to or death of any person including but not limited to members of the public, the Permittee, persons employed by the Permittee, and/or persons acting on behalf of the Permittee, arising out of or in connection with: (a) the issuance and/or use of this encroachment permit; and/or (b) the encroachment, work, and/or activity conducted pursuant to this encroachment permit, or under color of authority of this encroachment permit but not in full compliance with the Permit Conditions as defined in General Provision Number 5 (“Unauthorized Work or Activity”); and/or (c) the installation, placement, design, existence, operation, and/or maintenance of the encroachment, work, and/or activity; and/or (d) the failure by the Permittee or anyone acting on behalf of the Permittee to perform the Permittee’s obligations under any part of the Permit Conditions as defined in General Provision Number 5, in respect to maintenance or any other obligation; and/or (e) any change to the Department’s property or adjacent property, including but not limited to the features or conditions of either of them, made by the Permittee or anyone acting on behalf of the Permittee; and/or (f) a defect or obstruction related to or caused by the encroachment, work, and/or activity whether conducted in compliance with the Permit Conditions as defined in General Provision Number 5 or constituting Unauthorized Work or Activity, or from any cause whatsoever. The duty of the Permittee to indemnify and save harmless includes the duties to defend as set forth in Section 2778 of the Civil Code.

It is the intent of the parties that except as prohibited by law, the Permittee will defend, indemnify, and hold harmless as set forth in this General Provision Number 28 regardless of the existence or degree of fault or negligence, whether active or passive, primary or secondary, on the part of: the United States, the State; the Department; the Directors, officers, employees, agents and/or contractors of the State and/or of the Department, including but not limited to the Director of Transportation and the Deputy Directors; the Permittee; persons employed by the Permittee; and/or persons acting on behalf of the Permittee.

The Permittee waives any and all rights to any type of expressed or implied indemnity from or against the United States, the State, the Department, and the Directors, officers, employees, agents, and/or contractors of the State and/or of the Department, including but not limited to the Director of Transportation and the Deputy Directors.

The Permittee understands and agrees to comply with the obligations of Titles II and III of the Americans with Disabilities Act in the conduct of the encroachment, work, and/or activity whether conducted pursuant to this encroachment permit or constituting Unauthorized Work

or Activity, and further agrees to defend, indemnify, and save harmless the United States, the State, the Department, and the Directors, officers, employees, agents, and/or contractors of the State and/or of the Department, including but not limited to the Director of Transportation and the Deputy Directors, from any and all claims, demands, damages, costs, penalties, liability, suits, or actions of every name, kind, and description arising out of or by virtue of the Americans with Disabilities Act.

The Permittee understands and agrees the Directors, officers, employees, agents, and/or contractors of the State and/or of the Department, including but not limited to the Director of Transportation and the Deputy Directors, are not personally responsible for any liability arising from or by virtue of this encroachment permit.

For the purpose of this General Provision Number 28 and all paragraphs herein, “contractors of the State and/or of the Department” includes contractors, and their subcontractors, under contract to the State and/or the Department.

This General Provision Number 28 and all paragraphs herein take effect immediately upon issuance of this encroachment permit, and apply before, during, and after the encroachment, work, and/or activity contemplated under this encroachment permit, whether such work is in compliance with the Permit Conditions as defined in General Provision Number 5 or constitutes Unauthorized Work or Activity, except as otherwise provided by California law. The Permittee’s obligations to defend, indemnify, and save harmless under this General Provision Number 28 take effect immediately upon issuance of this encroachment permit and have no expiration date, including but not limited to situations in which this encroachment permit expires or is revoked, the work or activity performed under this encroachment permit is accepted or not accepted by the Department, the encroachment, work, and/or activity is conducted in compliance with the Permit Conditions as defined in General Provision Number 5 or constitutes Unauthorized Work or Activity, and/or no work or activity is undertaken by the Permittee or by others on the Permittee’s behalf.

If the United States or an agency, department, or board of the United States is the Permittee, the first two paragraphs of this General Provision Number 28 (beginning “The Permittee agrees to indemnify...” and “It is the intent of the parties...”) are replaced by the following paragraph:

Claims for personal injury, death, or property damage allegedly caused by the negligent or wrongful act or omission of any employee of the United States acting within the scope of their official duties are subject to the Federal Tort Claims Act, as amended, 28 U.S.C. § 1346 and § 2671 et seq. (Chapter 171).

29. **NO PRECEDENT ESTABLISHED:** This encroachment permit is issued with the understanding that it does not establish a precedent.
30. **FEDERAL CIVIL RIGHTS REQUIREMENTS FOR PUBLIC ACCOMMODATION:**

ENCROACHMENT PERMIT GENERAL PROVISIONS

- a) As part of the consideration for being issued this encroachment permit, the Permittee, on behalf of Permittee and on behalf of Permittee's personal representatives, successors in interest, and assigns, does hereby covenant and agree that:
- i) No person on the grounds of race, color, or national origin may be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities.
 - ii) That in connection with the construction of any improvements on said lands and the furnishings of services thereon, no discrimination must be practiced in the selection and retention of first-tier subcontractors in the selection of second-tier subcontractors.
 - iii) That such discrimination must not be practiced against the public in their access to and use of the facilities and services provided for public accommodations (such as eating, sleeping, rest, recreation), and operation on, over, or under the space of the State highway right-of-way.
 - iv) That the Permittee must use the premises in compliance with all other requirements imposed pursuant to Title 15, Code of Federal Regulations, Commerce and Foreign Trade, Subtitle A. Office of the Secretary of Commerce, Part 8 (15 C.F.R. Part 8) and as said Regulations may be amended.
- b) That in the event of breach of any of the above nondiscrimination covenants, the State and the Department have the right to terminate this encroachment permit and to re-enter and repossess said land and the facilities thereon and hold the same as if said permit had never been made or issued.
31. **MAINTENANCE:** The Permittee is responsible at Permittee's sole expense for the encroachment, and the inspection, maintenance, repair, and condition thereof, so that it does not negatively impact State highway safety, maintenance, operations, construction, activities needed for construction/reconstruction, State facilities, or other encroachments. Additional permits or approval documents may be required authorizing additional work related to inspection, repair, and/or maintenance activities.
32. **SPECIAL EVENTS:** In accordance with subdivision (a) of Streets and Highways Code section 682.5 and 682.7, the Department is not responsible for the conduct or operation of the permitted activity, and the applicant agrees to defend, indemnify, and hold harmless the United States, the State, the Department, and the Directors, officers, employees, agents, and contractors of the State and/or of the Department, including but not limited to the Director of Transportation and the Deputy Directors, from any and all claims, demands, damages, costs, liability, suits, or actions of every name, kind and description arising out of any activity for which this encroachment permit is issued.
- The Permittee is required, as a condition of this encroachment permit, for any event that awards prize compensation to competitors in gendered categories, for any participant level that receives prize compensation, to ensure the prize compensation for each gendered category is identical at each participant level. (Streets and Highways Code, section 682.7.)
- The Permittee understands and agrees to comply with the obligations of Titles II and III of the Americans with Disabilities Act in the conduct of the event, and further agrees to defend, indemnify, and save harmless the United State, the State and the Department, and the Directors, officers, and employees of the State and/or Department, including but not limited to the Director of the Department and the Deputy Directors, from any and all claims, demands, damages, costs, liability, suits, or actions of every name, kind and description arising out of or by virtue of the Americans with Disabilities Act.
33. **PRIVATE USE OF STATE HIGHWAY RIGHT-OF-WAY:** State highway right-of-way must not be used for private purposes without compensation to the State. The gifting of public property uses and therefore public funds is prohibited under the California Constitution, Article XVI, Section 6.
34. **FIELD WORK REIMBURSEMENT:** Permittee must reimburse the Department for field work performed on Permittee's behalf to correct or remedy hazards or damaged facilities, or to clear refuse, debris, etc. not attended to by the Permittee.
35. **LANE CLOSURE REQUEST SUBMITTALS AND NOTIFICATION OF CLOSURES TO THE DEPARTMENT:** Lane closure request submittals and notifications must be in accordance with Section 12-4.02, and Section 12.4-04, of the Department's Standard Specifications or as directed by the Department's representative. The Permittee must notify the Department's representative and the Traffic Management Center ("TMC") before initiating a lane closure or conducting an activity that may cause a traffic impact. In emergency situations when the corrective work or the emergency itself may affect traffic, the Department's representative and the TMC must be notified as soon as possible.
36. **SUSPENSION OF TRAFFIC CONTROL OPERATION:** The Permittee, upon notification by the Department's representative, must immediately suspend all traffic lane, bike lane, sidewalk, crosswalk, and/or shoulder closure operations and any operation that impedes the flow of traffic. All costs associated with this suspension must be borne by the Permittee.
37. **UNDERGROUND SERVICE ALERT (USA) NOTIFICATION:** Any excavation requires compliance with the provisions of Government Code section 4216 et seq., including but not limited to notice to a regional notification center, such as Underground Service Alert (USA). The Permittee must provide notification to the Department representative at least five (5) business days before, and the regional notification center at least forty-

ENCROACHMENT PERMIT GENERAL PROVISIONS

eight (48) hours before, performing any excavation work within the State highway right-of-way.

38. **COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA):** All work within the State highway right-of-way to construct and/or maintain any public facility must be designed, maintained, and constructed strictly in accordance with all applicable Federal Access laws and regulations (including but not limited to Section 504 of the Rehabilitation Act of 1973, codified at 29 U.S.C. § 794), California Access laws and regulations relating to ADA, along with its implementing regulations, Title 28 of the Code of Federal Regulations Parts 35 and 36 (28 C.F.R., Ch. I, Part 35, § 35.101 et seq., and Part 36, § 36.101 et seq.), Title 36 of the Code of Federal Regulations Part 1191 (36 C.F.R., Ch. XI, Part 1191, § 1119.1 et seq.), Title 49 of the Code of Federal Regulations Part 37 (49 C.F.R., Ch. A, Part 37, § 37.1 et seq.), the United States Department of Justice Title II and Title III for the ADA, and California Government Code section 4450 et seq., which require public facilities be made accessible to persons with disabilities.

Notwithstanding the requirements of the previous paragraph, all construction, design, and maintenance of public facilities must also comply with the Department's

Design Information Bulletin 82, "Pedestrian Accessibility Guidelines for Highway Projects" and Standard Plans & Specifications on "Temporary Pedestrian Access Routes."

39. **STORMWATER:** The Permittee is responsible for full compliance with the following:
- a) For all projects, the Department's Storm Water Program and the Department's National Pollutant Discharge Elimination System (NPDES) Permit requirements under Order No. 2012-0011-DWQ, NPDES No CAS000003; and
 - b) In addition, for projects disturbing one acre or more of soil, with the California Construction General Permit Order No. 2009-0009-DWQ, NPDES No CAS000002; and
 - c) In addition, for projects disturbing one acre or more of soil in the Lahontan Region with Order No. R6T-2016-0010, NPDES No CAG616002.
 - d) For all projects, it is the Permittee's responsibility to install, inspect, repair, and maintain all facilities and devices used for water pollution control practices (Best Management Practices/BMPs) before performing daily work activities.

ROLLING TRAFFIC BREAKS

TR-0407 (Rev 10/2017)

In addition to the attached General Provisions (TR-0045), the following special provisions are also applicable:

1. Permittee must arrange a meeting with the California Highway Patrol (CHP) and the Caltrans permit inspector, at least two (2) weeks prior to the start of work in order to determine the appropriate number of CHP vehicles required for planned traffic breaks. A minimum of two (2) CHP vehicles in each direction are required. One CHP vehicle will be conducting the planned traffic break and the second CHP vehicle will be stationed on the shoulder with its rear emergency lights on to caution motorists at the end of the queue. Additional CHP vehicles may be required if determined to be necessary by the CHP. It is the responsibility of the permittee to make arrangements with CHP for providing planned traffic breaks to facilitate the approved work.
2. The duration of a planned traffic break **MUST NOT** exceed five (5) minutes. If additional traffic breaks are required, traffic backup must be cleared before performing another break.
3. The permittee must provide a minimum of one (1) Portable Changeable Message Sign (PCMS). Additional PCMSs must be provided if required by Caltrans permit inspector or CHP. PCMS(s) must be placed at the locations directed by the CHP and be moved or relocated as needed. Each PCMS must comply with section 12-3.32 of the Caltrans Standard Specifications. PCMS(s) must be removed promptly after the planned traffic break is completed.
4. Message to be displayed on the PCMSs must be coordinated with Caltrans permit inspector/representative and CHP.
5. All aerial crossings should be scheduled on Sunday mornings (excluding holidays), from daylight to 10:00 AM, unless otherwise authorized by the District Permit Engineer or authorized Caltrans' representative.
6. No aerial crossings must be performed in rainy, foggy or other inclement weather.

1. GENERAL: The purpose of these Special Provisions is to provide the Permittee with specifications for water pollution control to minimize, prevent, or control the discharge of material into the air, surface waters, groundwater, and storm sewers owned by the State or local agencies. These provisions are not intended to take the place of the Caltrans Water Pollution Control Program (WPCP) for projects where soil disturbance from work activities less than one acre, or work activities of one acre or more subject to the preparation of the Caltrans Storm Water Pollution Prevention Plan (SWPPP). The Permittee must comply with the following Special Provisions and the direction of the State Representative. All Stormwater Best Management Practices (BMPs) must conform to Section 13 Water Pollution Control of Caltrans' Standard Specifications.

2. NPDES REQUIREMENTS: The Permittee must be responsible for full compliance with the Caltrans Storm Water Program and the Caltrans National Pollutant Discharge Elimination System (NPDES) Permit requirements (*Order No. 2012-0011-DWQ, NPDES No CAS000003*) and for and projects disturbing one acre or more of soil, full compliance with the California Construction General Permit (*Order No. 2009-0009-DWQ, NPDES No CAS000002*) or for projects for projects that have one acre or more of soil disturbance in the Lahontan Region (*Order No. R6T-2016-0010, NPDES No CAG616002*). It is the Permittee's responsibility to install, inspect, and repair or maintain facilities and devices used for water pollution control practices (BMPs) before performing daily work activities. Installation, inspection and maintenance responsibilities on the job site include: 1) soil stabilization materials in work areas that are inactive or prior to storm events, 2) water pollution control devices to control sediment and erosion, 3) implementation of spill and leak prevention procedures for chemical and hazardous substances stored on the job site, 4) material storage, 5) stockpile management, 6) waste management, 7) non-stormwater management, 8) water conservation, 9) tracking controls and 10) illicit connection, illegal discharge detection and reporting. The Permittee must report to the State representative when discharges enter into receiving waters, adjacent property, drainage systems or when discharges could be a cause or a threat for water pollution. The Permittee must also control illicit discharges or illegal dumping prior to start of daily work schedule. Copies of written notices or orders from the Regional Water Quality Control Board or other regulatory agency must be provided to the State representative within 48 hours of reported activity. For additional information on stormwater compliance, visit the State Water Resources Control Boards storm water Website at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater

3. RESPONSIBILITY FOR DEBRIS REMOVAL: The Permittee must be responsible for preventing sediment, trash, debris, and other construction waste from entering the street, the storm drains, local creeks, or any other bodies of water.

4. SPOILS AND RESIDUE: The Permittee must vacuum any saw-cut concrete waste material, debris, residue, etc. No spoils, debris, residue, etc. must be washed into a drainage system.

5. SWEEPING: Sweep paved roads at construction entrance and exit locations and surrounding paved areas daily within the job site during: 1) clearing and grubbing, 2) earthwork, 3) trenching, 4) soil disturbance, 5) pavement grinding and/or cutting, and 6) after observing tracking of material onto or off the State property. Keep dust to a minimum during sweeping activities. Use vacuum whenever dust generation is excessive or sediment pickup is ineffective.

Roadways or work areas must not be washed down with water. Street sweeping operations must conform to Section 13 Water Pollution Control of Caltrans' Standard Specifications.

6. VEHICLES AND EQUIPMENT: Permittee must prevent all vehicles, equipment, etc. from leakage or mud tracking onto roadways. If leaks cannot be repaired immediately, remove the vehicle or equipment from the job site.

7. MAINTENANCE AND FUELING OF VEHICLES AND EQUIPMENT: Maintenance and fueling of equipment must not result in any pollution at the job site. The Permittee must immediately clean up spills/leaks, and properly dispose of contaminated soil and materials.

8. CLEANING VEHICLES AND EQUIPMENT: Limit vehicle and equipment cleaning or washing at the job site except what is necessary to control vehicle tracking or hazardous waste. The Permittee must clean all equipment within a bermed area or over a drip pan large enough to prevent run-off. No soaps, solvents, degreasers, etc. must be used in State right-of-way. Any water from this operation must be collected and disposed of at an appropriate site. Containment berms or dikes must be used for fueling, washing, maintaining and washing vehicles or equipment in outside areas. Containment must be performed at least 100 feet from concentrated flows of storm water, drainage courses, and storm drain inlets if within a flood plain, otherwise at least 50 feet if outside the floodplain. Keep adequate quantities of absorbent spill- cleanup material and spill kits in the fueling or maintenance area and on fueling trucks.

9. DIESEL FUELS: The use of diesel fuel from petroleum or other fossil fuel as a form-oil or solvent is not allowed.

10. WEATHER CONDITIONS AT WORKSITE: Any activity that would generate fine particles or dust that could be transported off site by stormwater must be performed during dry weather.

11. WIND EROSION PROTECTION: The use of Wind Erosion BMPs must be deployed year-round in instances where dust or fine particles could be transported off site.

11. HOT MIX ASPHALT: Runoff from washing hot mix asphalt must not enter into any drainage conveyances.

12. PROTECTION OF DRAINAGE FACILITIES: The Permittee must protect/cover gutters, ditches, drainage courses, and inlets with gravel bags, fiber rolls, State approved fabric filters, etc., to the satisfaction of the State representative during grading, paving, saw-cutting, etc. and materials must conform to Section 13-6.02 Materials for Water Pollution Control of Caltrans' Standard Specifications. No such protection measures must cause an obstruction to the traveling public. The Permittee must implement spill and leak prevention procedures for chemicals and hazardous substances stored on the job site (including secondary containment requirements) in accordance to section 13-4.03B Spill Prevention and Control, and 14-11 Hazardous Waste and Contamination, Water Pollution Control of Caltrans' Standard Specifications.

13. PAINT: Rinsing of painting equipment and materials is not permitted in State right-of-way. When thoroughly dry, dispose of the following as solid waste: dry latex paint, paint cans, used brushes, rags, gloves, absorbent materials, and drop cloths. Oil based paint sludge and unusable thinner must be disposed of at an approved hazardous waste site.

14. CONSTRUCTION MATERIALS: Stockpile of all construction materials, including, but not limited to; pressure treated wood, asphalt concrete, cold mix asphalt concrete, concrete, grout, cement containing premixes, and mortar, must conform to section 13-4.03C (2) Material Storage & 13-4.03C (3) Stockpile Management of Caltrans' Standard Specifications.

STORMWATER SPECIAL PROVISIONS for MINIMAL or NO IMPACT (SWSP)

TR-0400 (Rev 05/2018)

- 15. CONCRETE EQUIPMENT:** Concrete equipment must be washed in a designated washing area in a way that does not contaminate soil, receiving waters, or storm drain systems.
- 16. EXISTING VEGETATION:** Established existing vegetation is the best form of erosion control. Minimize disturbance to existing vegetation. Damaged or removed vegetation must be replaced as directed by the State Representative.
- 17. SOIL DISTURBANCE:** Soil disturbing activities must be avoided during the wet weather season. If construction activities during wet weather are allowed in your permit, all necessary erosion control and soil stabilization measures must be implemented in advance of soil disturbing activity.
- 18. SLOPE STABILIZATION AND SEDIMENT CONTROL:** Consider a certified expert in Erosion and Sediment control in cases where slopes are disturbed during construction. The Permittee is directed to comply with Section 13.5 Temporary Soil Stabilization and Section 21 Erosion Control of Caltrans' Standard Specifications during application of temporary soil stabilization measures to the soil surface. Fiber rolls or silt fences may be required down slope until permanent soil stabilization is established. Remove the accumulated sediment whenever the sediment accumulates to 1/3 of the linear sediment barrier height. The Permittee must limit the use of plastic materials when more sustainable, environmentally friendly alternatives exist or when environmental regulations prohibit their use within the project.
- 19. STOCKPILES:** Stockpiles containing aggregate and/or soil must be stored at least 100 feet from concentrated flows of storm water, drainage courses, and storm drain inlets if within a flood plain, otherwise at least 50 feet if outside the floodplain, and must be covered and protected with a temporary perimeter sediment barrier. Cold mix stockpiles must be stored on an impermeable surface and covered with 9 mil plastic to prevent contact with water. Minimize stockpiling of materials on the job site. Manage stockpiles by implementing the water pollution control practices in Section 13-4.03C (3) Stockpile Management of the State of California standard specifications for construction.
- 20. DISCOVERY OF CONTAMINATION:** The State Representative must be notified in case any unusual discoloration, odor, or texture of ground water, is found in excavated material or if abandoned, underground tanks, pipes, or buried debris are encountered.
- 21. SANITARY AND SEPTIC WASTE:** Do not bury or discharge wastewater from a sanitary or septic system within the highway. Properly connected sewer facilities are free from leaks. With State Representative approval place portable sanitary facility at least 50 feet away from storm drains, receiving waters, and flow lines. Permittee must comply with local health agency provisions when using an on-site disposal system.
- 22. LIQUID WASTE:** Prevent job site liquid waste from entering storm drain systems and receiving waters. Drilling slurries, grease or oil-free waste water or rinse water, dredging, wash water or rinse water running off a surface or other non-storm water liquids not covered under separate waste water permits must be held in structurally sound, leak-proof containers, such as portable bins or portable tanks. Store containers at least 50 feet away from moving vehicles and equipment. Liquid waste may require testing to determine hazardous material content prior to disposal. All measures must conform to section 13-4.03D (5) Liquid Waste, Water Pollution Control of Caltrans' Standard Specifications.
- 23. WATER CONTROL AND CONSERVATION:** Manage water use in a way that will prevent erosion and the discharge of pollutants into storm drain systems and receiving waters. Direct runoff, including water from water line repair from the job site to areas where it can infiltrate into the ground. Direct water from off-site sources around the job site or from contact with jobsite runoff.
- 24. PILE DRIVING:** Keep spill kits and cleanup materials at pile driving locations. Park pile driving equipment over drip pans, absorbent pads, or plastic sheeting with absorbent material, and away from stormwater run-on when not in use.
- 25. DEWATERING:** Dewatering consists of discharging accumulated storm water, groundwater, or surface water from excavations or temporary containment facilities. All dewatering operations must comply with the latest Caltrans guidelines including the *Field Guide for Construction Site Dewatering*. Contact State representative for approval of dewatering discharge by infiltration or evaporation, otherwise, any effluent discharged into a permitted storm water system requires approval from the Regional Water Quality Control Board. Prior to the start of dewatering, the Permittee must provide the State Representative with a dewatering and discharge work plan that complies with section 13-4.03G Dewatering, Water Pollution Control of Caltrans' Standard Specifications. A copy of the Waste Discharge Permit and a copy of a valid WDID number issued by the Regional Board must be provided to the State representative.

DIST	COUNTY	ROUTE	POST MILE TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

Alfonso Fajardo
 REGISTERED CIVIL ENGINEER
 No. 33119
 Exp. 3-31-19
 STATE OF CALIFORNIA
 PROFESSIONAL ENGINEERS

MAY 31, 2018
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS
 OR AGENTS SHALL NOT BE RESPONSIBLE FOR
 THE ACCURACY OF THE INFORMATION OR SCALED
 COPIES OF THIS PLAN SHEET.

TABLE 3

ROAD TYPE	DISTANCE BETWEEN SIGNS *		
	A	B	C
	ft	ft	ft
URBAN - 25 MPH OR LESS	100	100	100
URBAN - MORE THAN 25 MPH TO 40 MPH	250	250	250
URBAN - MORE THAN 40 MPH	350	350	350
RURAL	500	500	500
EXPRESSWAY / FREEWAY	1000	1500	2640

* - The distances are approximate, are intended for guidance purposes only, and should be applied with engineering judgment. These distances should be adjusted by the Engineer for field conditions, if necessary, by increasing or decreasing the recommended distances.

TABLE 2

SPEED *	Min D **	DOWNGRADE Min D ***		
		-3%	-6%	-9%
20	115	116	120	126
25	155	158	165	173
30	200	205	215	227
35	250	257	271	287
40	305	315	333	354
45	360	378	400	427
50	425	446	474	507
55	495	520	553	593
60	570	598	638	686
65	645	682	728	785
70	730	771	825	891
75	820	866	927	1003

* - Speed is posted speed limit, off-peak 85th-percentile speed and/or to start, or the anticipated operating speed in mph

** - Longitudinal buffer space or flagger station spacing and longer than 1 mile.

*** - Use on sustained downgrade steeper than -3 percent

TABLE 1

SPEED (S)	TAPER LENGTH CRITERIA AND CHANNELIZING DEVICE SPACING									
	MINIMUM TAPER LENGTH * FOR WIDTH OF OFFSET 12 FEET (W)		MAXIMUM CHANNELIZING DEVICE SPACING				CONFLICT			
	TANGENT ZL	MERGING L	SHIFTING L/2	SHOULDER L/3	X TAPER	Y TANGENT	Z **	CONFLICT	CONFLICT	CONFLICT
20	160	80	40	27	20	40	10	10	10	10
25	250	125	63	42	25	50	12	12	12	12
30	360	180	90	60	30	60	15	15	15	15
35	490	245	123	82	35	70	17	17	17	17
40	640	320	160	107	40	80	20	20	20	20
45	1080	540	270	180	45	90	22	22	22	22
50	1200	600	300	200	50	100	25	25	25	25
55	1320	660	330	220	50	100	25	25	25	25
60	1440	720	360	240	50	100	25	25	25	25
65	1560	780	390	260	50	100	25	25	25	25
70	1680	840	420	280	50	100	25	25	25	25
75	1800	900	450	300	50	100	25	25	25	25

* - For other offsets, use the following merging taper length formula for L:
 For speed of 40 mph or less, $L = WS^2 / 60$
 For speed of 45 mph or more, $L = WS$

Where: L = Taper length in feet

W = Width of offset in feet

S = Posted speed limit, off-peak 85th-percentile speed and/or to start, or the anticipated operating speed in mph

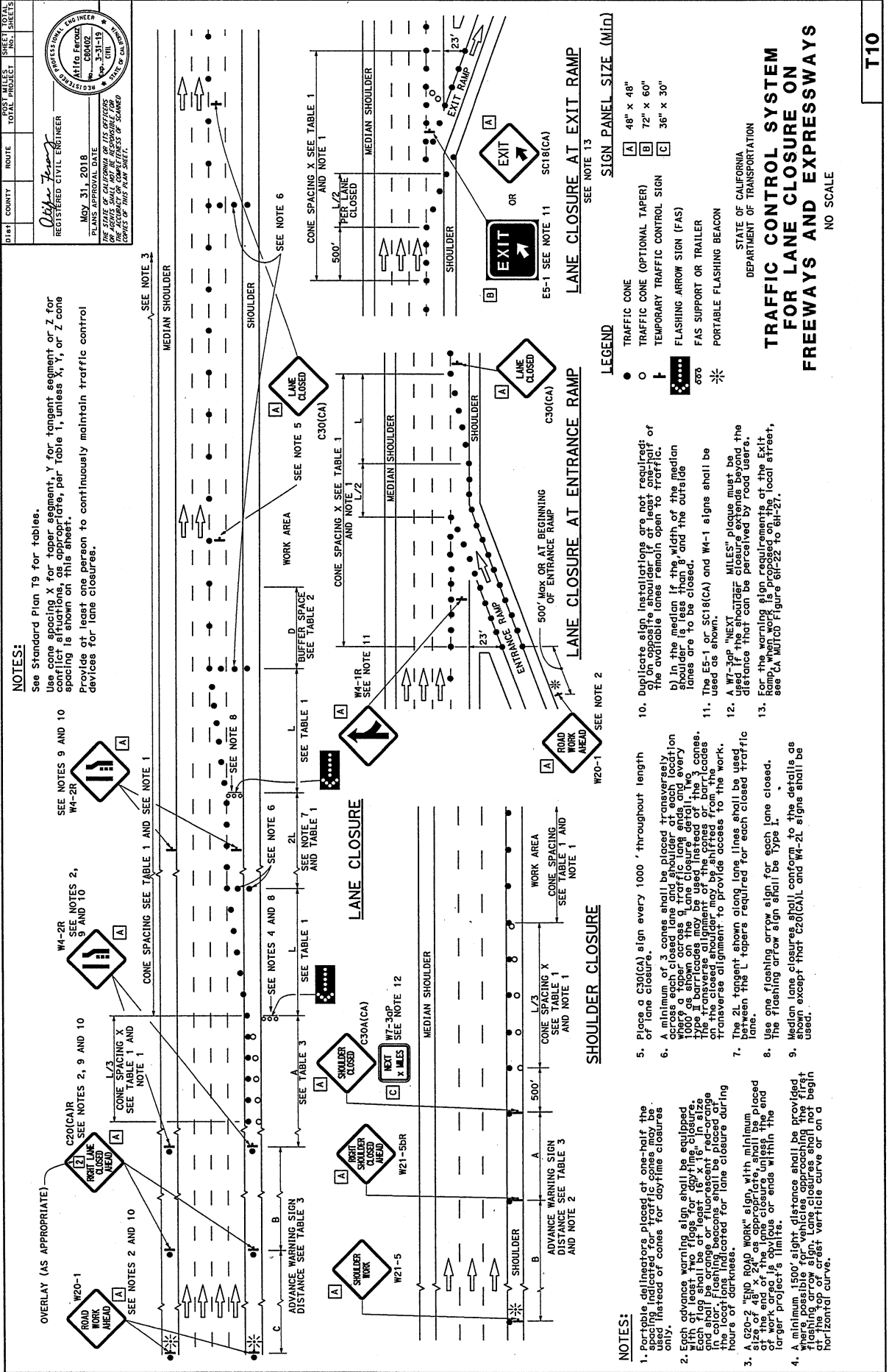
** - Use for taper and tangent sections where there are no pavement markings or where there is a conflict between existing pavement markings and channelizers (CA).

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
TRAFFIC CONTROL SYSTEM TABLES
FOR LANE AND RAMP CLOSURES
 NO SCALE

T9

DIST COUNTY ROUTE TOTAL PROJECT SHEET NO. TOTAL SHEETS
 REGISTERED CIVIL ENGINEER
 Mito Furuta
 No. 3-31-19
 MAY 31, 2018
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS
 OR A PERSON AUTHORIZED BY THE PRESSURE OF LAW
 COPIES OF THIS PLAN SHEET.

NOTES:
 See Standard Plan T9 for tables.
 Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.
 Provide at least one person to continuously maintain traffic control devices for lane closures.



- NOTES:**
- Portable delineators placed at one-half the distance of advance warning sign for daytime closures only.
 - Each advance warning sign shall be equipped with at least two flags for daytime closure. Each flag shall be at least 18" in size, with reflective material on the back, and in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
 - A 500' END ROAD WORK sign with minimum advance warning distance shall be placed at the end of the lane closure unless the end of work area is obvious or ends within the larger project's limits.
 - A minimum 1500' sight distance shall be provided at the top of crest vertical curve or on a horizontal curve.
 - Place a C30(CA) sign every 1000' throughout length of lane closure.
 - A minimum of cones shall be placed transversely across the lane closure at each location where a taper across traffic lane ends and every 1000' as shown on the Lane Closure detail. The transverse alignment of the cones or barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.
 - The 2L tangent shown along lane lines shall be used between the L tapers required for each closed traffic lane.
 - Use one flashing arrow sign for each lane closed.
 - The flashing arrow sign shall be Type 1.
 - Median lane closures shall conform to the details as shown, except that C20(CAL) and W4-2L signs shall be used.
 - Duplicate sign installations are not required if the available lanes remain open to traffic.
 - In the median if the width of the median shoulder is less than 8' and the outside lanes are to be closed.
 - The ES-1 or SC18(CA) and W4-1 signs shall be used as shown.
 - A W7-30P "NEXT MILES" plaque must be used if the shoulder closure extends beyond the project limits.
 - For the warning sign requirements of the Exit sign, see MUTCD Figure 6E-22.10 8H-21.

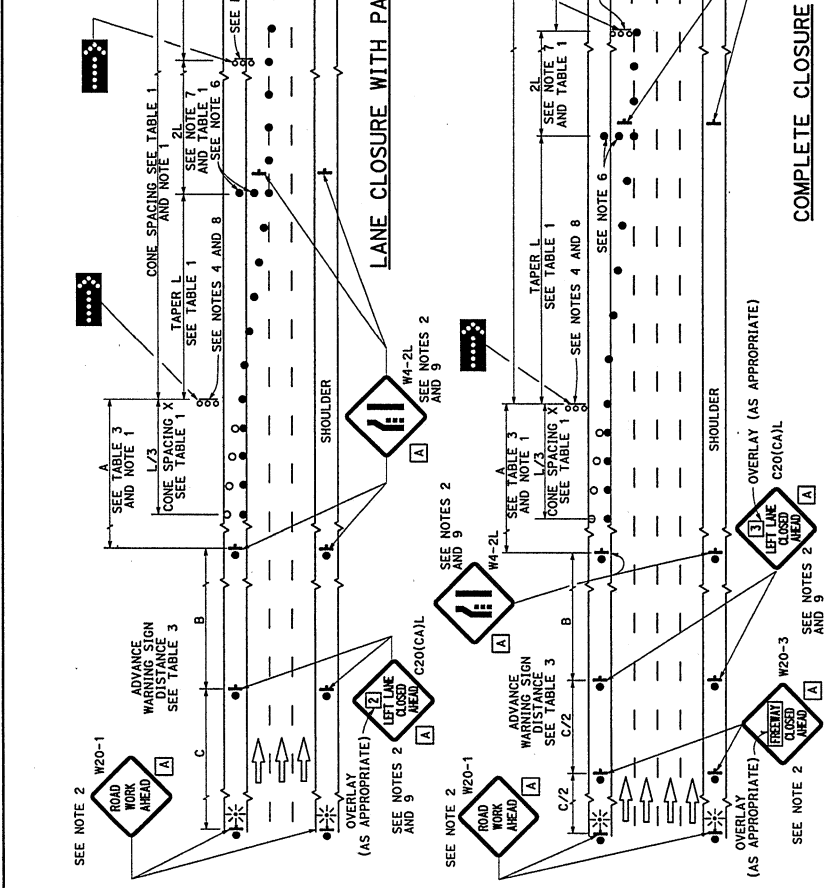
**TRAFFIC CONTROL SYSTEM
 FOR LANE CLOSURE ON
 FREEWAYS AND EXPRESSWAYS**
 NO SCALE

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

T10

COUNTY ROUTE PROJECT SHEET LABELS
 DATE COUNTY ROUTE PROJECT SHEET LABELS
 REGISTERED CIVIL ENGINEER
 MAY 31, 2018
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS
 OR AGENTS SHALL NOT BE RESPONSIBLE FOR
 COPIES OF THIS PLAN SHEET.

NOTES:
 See Standard Plan T9 for tapers.
 Use cone spacing X for taper segment, Y for tangent segment or Z for
 conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone
 spacing is shown on this sheet.
 Provide at least one person to continuously maintain traffic control
 devices for lane closures.



- LEGEND**
- TRAFFIC CONE
 - TRAFFIC CONE (OPTIONAL TAPER)
 - ⊥ TEMPORARY TRAFFIC CONTROL SIGN
 - ⬇️ FLASHING ARROW SIGN (FAS)
 - ⬇️ FAS SUPPORT OR TRAILER
 - ⊛ PORTABLE FLASHING BEACON

SIGN PANEL SIZE (Min)
 A 48" x 48"
 B 48" x 18"
 C 48" x 30"

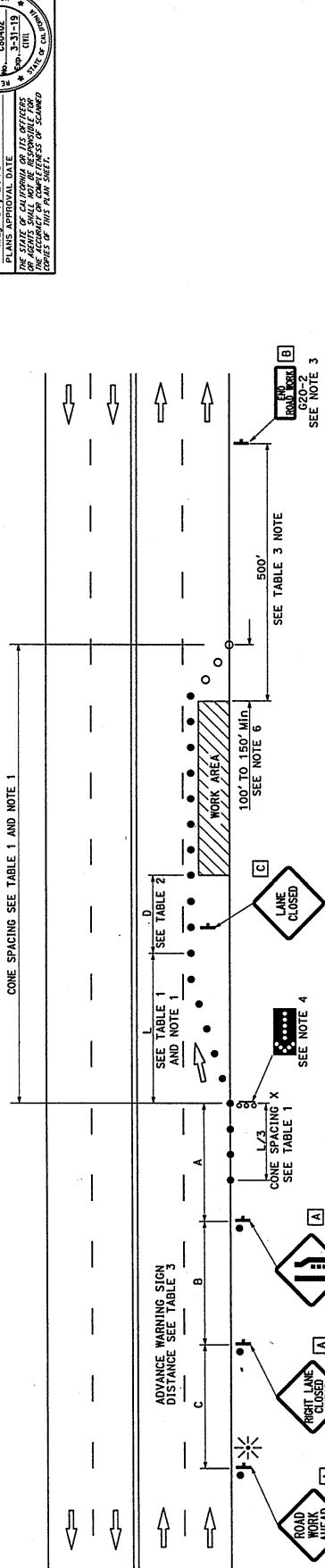
NOTES:
 1. Portable delineators placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.
 2. Each advance warning sign shall be equipped with a reflective sheeting of at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. The locations indicated for lane closure during hours of darkness.
 3. A 620-2 "END ROAD WORK" sign, with minimum size of 48" x 24", as appropriate, shall be placed at the end of the work area. The sign shall be clearly visible and obvious or ends within a larger project's limits.
 4. A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at the top of crest vertical curve or on a horizontal curve.
 5. Place a C30(CA) sign every 1000' throughout length of lane closure.
 6. A minimum of 3 cones shall be placed transverse across each closed lane and shoulder at each location where a taper, cone closure with partial shoulder, or full closure is used. Closure may be used instead of the 3 cones. The transverse alignment of the cones shall be perpendicular to the centerline and from the transverse alignment to provide access to the work.
 7. The 2L tangent shown along lane lines shall be used between the L tapers required for each closed traffic lane.
 8. Use one flashing arrow sign for each lane closed. The flashing arrow sign shall be Type I.
 9. Lane closures on the right side using partial median shoulder 650' traffic lane shall conform to the details shown except that C20(CA/R) and W4-2R signs shall be used.
 10. A minimum of two Type II or III barricades shall be placed across each closed lane and shoulder at the closure area. Within the complete closure complete the transverse alignment of the barricades on the closed shoulder. The transverse alignment of the barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM
 FOR LANE CLOSURE ON
 FREEWAYS AND EXPRESSWAYS**
 NO SCALE

T10A

DIST	COUNTY	ROUTE	POST MILEAGE TOTAL PROJECT	SHEET TOTAL SHEETS

Robert J. Young
 REGISTERED CIVIL ENGINEER
 MAY 31, 2018
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS
 OR AGENTS SHALL NOT BE HELD RESPONSIBLE FOR
 COPIES OF THIS PLAN SHEET.



NOTES:

See Standard Plan T9 for tables.

Use cone spacing X for taper segment, Y for tangent segment or Z for contract conditions, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

Provide at least one person to continuously maintain traffic control devices for lane closures.

NOTES:

See Standard Plan T9 for tables.

Use cone spacing X for taper segment, Y for tangent segment or Z for contract conditions, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

Provide at least one person to continuously maintain traffic control devices for lane closures.

NOTES:

See Standard Plan T9 for tables.

Use cone spacing X for taper segment, Y for tangent segment or Z for contract conditions, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

Provide at least one person to continuously maintain traffic control devices for lane closures.

NOTES:

See Standard Plan T9 for tables.

Use cone spacing X for taper segment, Y for tangent segment or Z for contract conditions, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

Provide at least one person to continuously maintain traffic control devices for lane closures.

NOTES:

See Standard Plan T9 for tables.

Use cone spacing X for taper segment, Y for tangent segment or Z for contract conditions, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

Provide at least one person to continuously maintain traffic control devices for lane closures.

NOTES:

See Standard Plan T9 for tables.

Use cone spacing X for taper segment, Y for tangent segment or Z for contract conditions, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

Provide at least one person to continuously maintain traffic control devices for lane closures.

NOTES:

See Standard Plan T9 for tables.

Use cone spacing X for taper segment, Y for tangent segment or Z for contract conditions, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

Provide at least one person to continuously maintain traffic control devices for lane closures.

SIGN PANEL SIZE (Min)

A	48" x 48"
B	36" x 18"
C	30" x 30"

- LEGEND**
- TRAFFIC CONE
 - TRAFFIC CONE (OPTIONAL TAPER)
 - † TEMPORARY TRAFFIC CONTROL SIGN
 - ☒ FLASHING ARROW SIGN (FAS)
 - ☒ FAS SUPPORT OR TRAILER
 - ☒ PORTABLE FLASHING BEACON

- NOTES:**
- Portable delineators placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.
 - Each advance warning sign shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. The flags shall be placed at the locations indicated for lane closure during hours of darkness.
 - A G20-2 "END ROAD WORK" sign shall be placed at the end of the lane closure unless the end of work area is obvious or ends within the larger project's limits.
 - A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at the top of crest vertical curve or on a horizontal curve.
 - Place C30(CA) "LANE CLOSED" sign at 500' to 1000' intervals throughout extended work area.
 - Length may be reduced by the Engineer to address site conditions.
 - Median lane closures shall conform to the details shown except that C20(CA) and W-2L signs shall be used.
 - For approach speeds over 50 MPH, use the "Traffic Control System for Lane Closure on Freeways and Expressways" plan for lane closure details and requirements.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM
 FOR LANE CLOSURE ON
 MULTILANE CONVENTIONAL
 HIGHWAYS**
 NO SCALE

T11

Return to Table of Contents

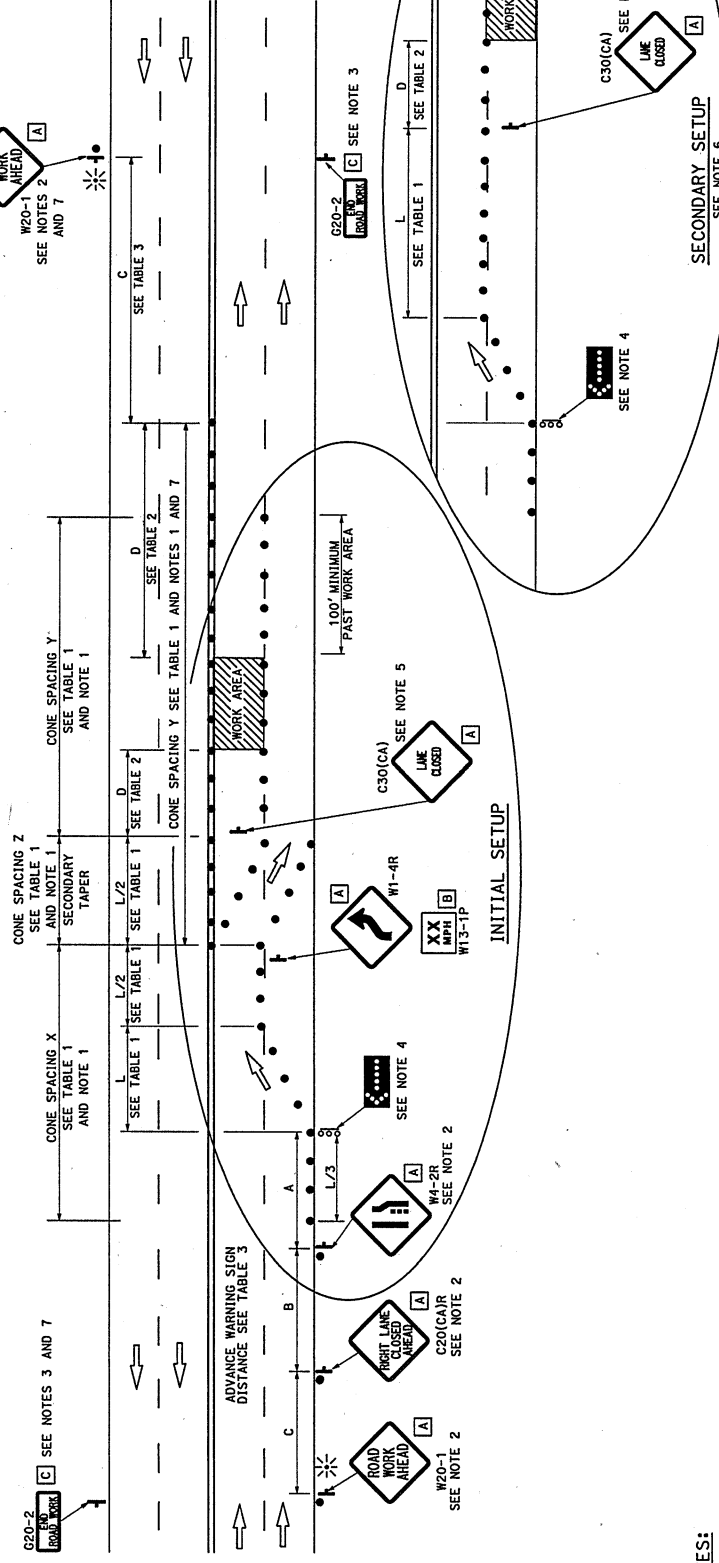
DISTRICT COUNTY ROUTE
 PROJECT TOTAL PROJECT SHEET NO. OF SHEETS
 REGISTERED CIVIL ENGINEER
 October 18, 2019
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS
 OR AGENTS SHALL NOT BE RESPONSIBLE FOR
 COPIES OF THIS PLAN SHEET.

TO ACCOMPANY PLANS DATED _____
 NOTES:
 See Standard Plan T9 for tables.
 Use cone spacing X for taper segment, Y for tangent segment or Z for
 spacing to be shown on this sheet.
 Provide at least one person to continuously maintain traffic control devices
 for lane closures.

SIGN PANEL SIZE (Min)
 A 48" x 48"
 B 24" x 24"
 C 36" x 18"

LEGEND
 ● TRAFFIC CONE
 † TEMPORARY TRAFFIC CONTROL SIGN
 FLASHING ARROW SIGN (FAS)
 FAS SUPPORT OR TRAILER
 PORTABLE FLASHING BEACON

TYPICAL CHANGEABLE LANE CLOSURE



- NOTES:
1. Portable delineators placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.
 2. Each advance warning sign shall be equipped with at least two flags and shall be orange or fluorescent red-orange in color. Flashing beacon shall be placed at the locations indicated for lane closure during hours of darkness.
 3. A C20-2 "END ROAD WORK" sign shall be placed at the end of the lane closure unless the end of work area is obvious or ends within the larger project's limits.
 4. A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at the top of a crest vertical curve or on a horizontal curve.
 5. Place C30(CA) "LANE CLOSED" sign at 500' to 1000' intervals throughout extended work area.
 6. Relocate secondary taper to tangent location and relocate C30(CA) sign.
 7. Sign installations and cones are not required when a median barrier is in place.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
 NO SCALE
 RSP T11A DATED OCTOBER 18, 2019 SUPERSEDES STANDARD PLAN T11A
 DATED MAY 31, 2018 - PAGE 289 OF THE STANDARD PLANS BOOK DATED 2018.

TRAFFIC CONTROL SYSTEM
 FOR CHANGEABLE LANE CLOSURE ON
 MULTILANE CONVENTIONAL
 HIGHWAYS AND EXPRESSWAYS

REVISED STANDARD PLAN RSP T11A

Dist	County	Route	Post Miles	SHEET TOTAL
			TOTAL PROJECT	NO. SHEETS

Arto Ebrahimi
 REGISTERED CIVIL ENGINEER
 PLANS APPROVAL DATE: **May 31, 2018**
 THE STATE OF CALIFORNIA OR ITS OFFICERS
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 COPIES OF THIS PLAN SHEET.

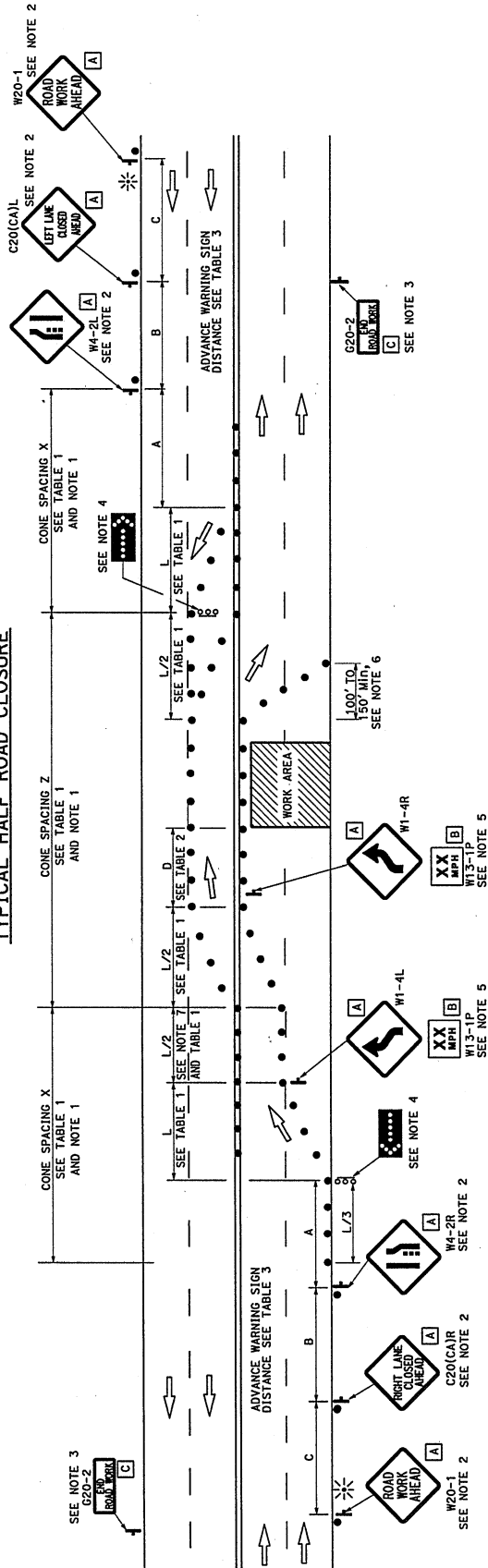
NOTES:
 See Standard Plan T9 for tables.
 Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.
 Provide at least one person to continuously maintain traffic control devices for lane closures.

SIGN PANEL SIZE (Min)

A	48" x 48"
B	24" x 24"
C	36" x 16"

- LEGEND**
- TRAFFIC CONE
 - † TEMPORARY TRAFFIC CONTROL SIGN
 - FLASHING ARROW SIGN (FAS)
 - FAS SUPPORT OR TRAILER
 - PORTABLE FLASHING BEACON

TYPICAL HALF ROAD CLOSURE



- NOTES:**
- Portable delineators placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.
 - Each advance warning sign shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
 - A G20-2 "END ROAD WORK" sign shall be placed at the end of the lane closure unless the end of work area is obvious or ends within the larger project's limits.
 - A minimum 1500' sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at the top of crest vertical curve or on a horizontal curve.
 - Advisory speed will be determined by the Engineer. The W13-1P Plaque will not be required when advisory speed is more than the posted or maximum speed limit.
 - Length may be reduced by the Engineer to address site conditions.
 - The tangent (L/2) shall be used.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM
 FOR HALF ROAD CLOSURE ON
 MULTILANE CONVENTIONAL
 HIGHWAYS AND EXPRESSWAYS**
 NO SCALE

T12

Return to Table of Contents

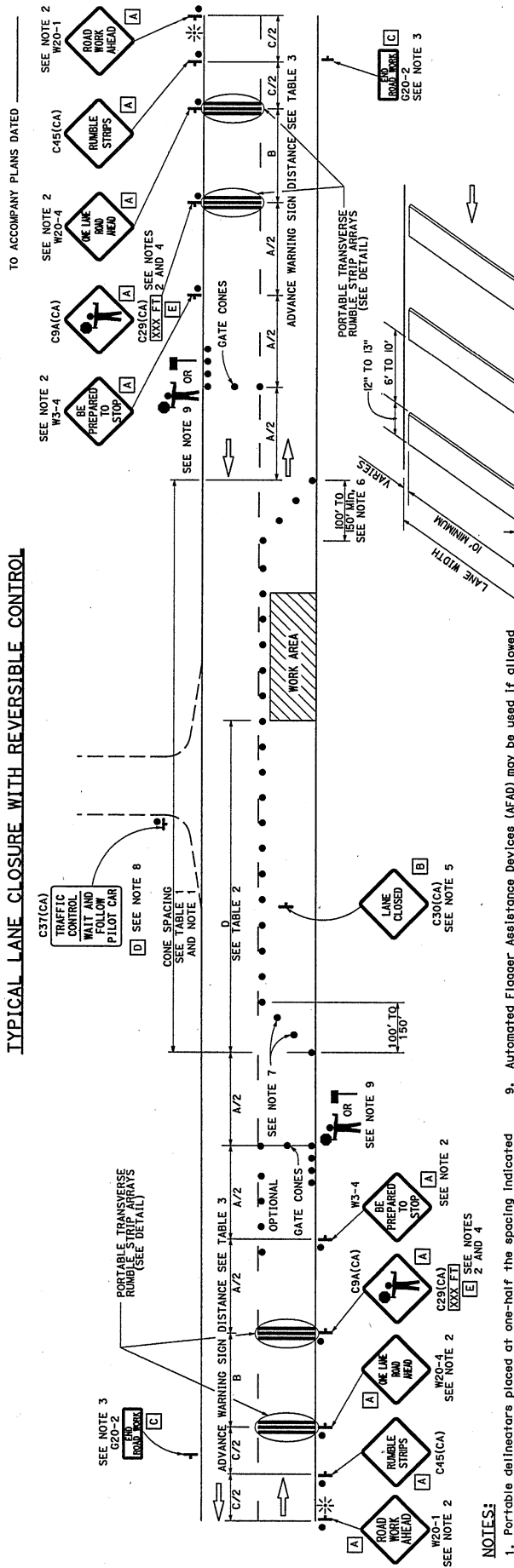
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POST PAID: TOTAL SHEETS: TOTAL SHEETS: SHEET TOTAL: TOTAL SHEETS:

REGISTERED CIVIL ENGINEER
October 18, 2019
ALFARO ERDOZ
No. 5-31-21
CHIL
THE STATE OF CALIFORNIA DOES NOT GUARANTEE THE ACCURACY OF THIS PLAN SHEET. THE ENGINEER SHALL BE RESPONSIBLE FOR THE ACCURACY OF THIS PLAN SHEET.

TYPICAL LANE CLOSURE WITH REVERSIBLE CONTROL

NOTES:
See Standard Plan T9 for tables.
Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.
Provide at least one person to continuously maintain traffic control devices for lane closures.



9. Automated Flagger Assistance Devices (AFAD) may be used if allowed by the special provisions or approved by the Engineer.

- NOTES:**
- Portable delineators placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.
 - Each advance warning sign shall be equipped with at least one reflective sheet with a minimum size of 16" x 18". In size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
 - A G20-2 "END ROAD WORK" sign, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within the larger project limits.
 - An optional C29(CA) sign may be placed below the C9A(CA) sign.
 - Place C30(CA) "LANE CLOSED" sign at 500' to 1000' intervals throughout extended work area. They are optional if the work area is visible from the flagger station.
 - Length may be reduced by the Engineer to address site conditions.
 - Either traffic cones or barricades shall be placed on the taper. Barricades shall be Type II, or III.
 - When a pilot car is used, place a C37(CA) "TRAFFIC CONTROL-WAIT AND FOLLOW PILOT CAR" sign with black legend on white background at all intersections, driveways and alleys without a flagger within the traffic control area.

LEGEND

- TRAFFIC CONE
- † TEMPORARY TRAFFIC CONTROL SIGN
- * PORTABLE FLASHING BEACON
- ⚑ FLAGGER
- ⚑ AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD)

PORTABLE TRANSVERSE RUMBLE STRIP ARRAY DETAIL

SIGN PANEL SIZE (MIN)

A	48" x 48"
B	30" x 30"
C	36" x 18"
D	36" x 42"
E	20" x 7"

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM
FOR LANE CLOSURE ON
TWO LANE CONVENTIONAL
HIGHWAYS**

NO. SCALE
RSP T13 DATED OCTOBER 18, 2019 SUPERSEDES STANDARD PLAN T13
DATED MAY 31, 2018 - PAGE 297 OF THE STANDARD PLANS BOOK DATED 2018.

DIS#	COUNTY	ROUTE	POST MILE	SHEET NO.	TOTAL SHEETS

Attila Farouk
 REGISTERED CIVIL ENGINEER
 MOY 31, 2018
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICES
 OR ANY EMPLOYEE THEREOF SHALL NOT BE HELD RESPONSIBLE FOR
 COPIES OF THIS PLAN SHEET.

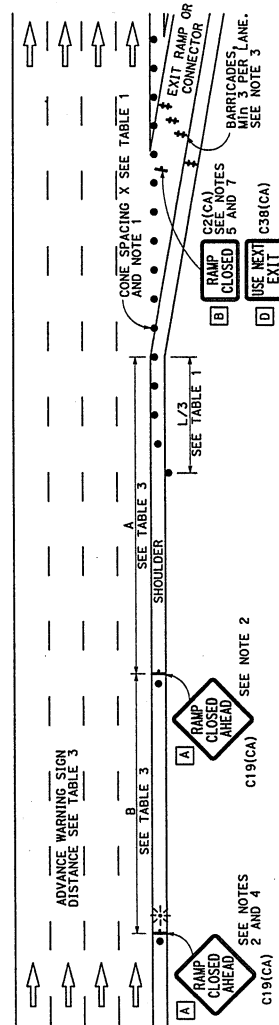
- LEGEND**
- TRAFFIC CONE
 - † TEMPORARY TRAFFIC CONTROL SIGN
 - ⚡ BARRICADES
 - ✱ PORTABLE FLASHING BEACON

SIGN PANEL SIZE (MIN)

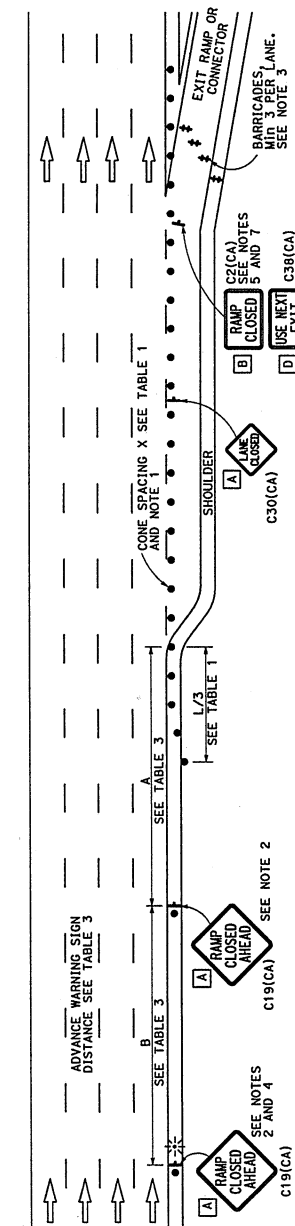
A	48" x 48"
B	48" x 30"
C	36" x 36"
D	48" x 36"

- NOTES:**
- Portable delineators placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.
 - Each advance warning C19(CA) "RAMP CLOSED AHEAD" sign shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. A flashing beacon shall be placed on top of the first C19(CA) sign during hours of darkness.
 - Barricades shall be Type I, II or III for closures lasting one week or less and Type III for closures lasting longer than one week.
 - In addition to placing the C19(CA) "RAMP CLOSED AHEAD" and C30(CA) "RAMP CLOSED" signs, black on orange overlay plates with the word "closed" may be mounted. As directed by the Engineer on all guide signs that refer to the closed ramp. The letter size on the overlay shall be the same as the guide sign.
 - The existing "EXIT" signs shall be covered during ramp closures.
 - A minimum of 3 cones shall be placed transversely across each closed lane and shoulder.
 - C2(CA) sign shall be black and white.

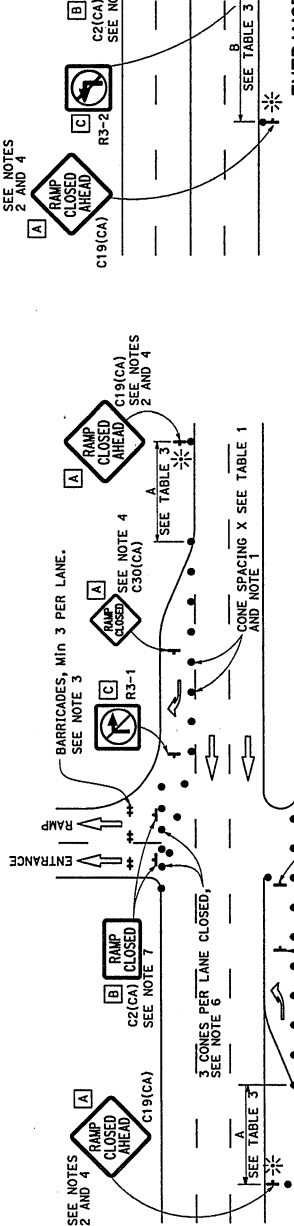
TYPICAL RAMP CLOSURES



EXIT RAMP OR CONNECTOR

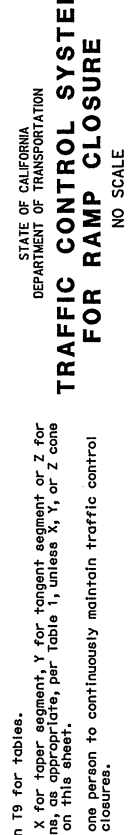


EXIT RAMP OR CONNECTOR WITH ADDITIONAL LANE



- NOTES:**
- See Standard Plan T9 for tables.
 - Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per table 1, unless X, Y, or Z cone spacing is shown on this sheet.
 - Provide at least one person to continuously maintain traffic control devices for lane closures.

ENTRANCE RAMP WITHOUT TURNING POCKETS



- NOTES:**
- See Standard Plan T9 for tables.
 - Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per table 1, unless X, Y, or Z cone spacing is shown on this sheet.
 - Provide at least one person to continuously maintain traffic control devices for lane closures.

TRAFFIC CONTROL SYSTEM FOR RAMP CLOSURE

NO SCALE

T14

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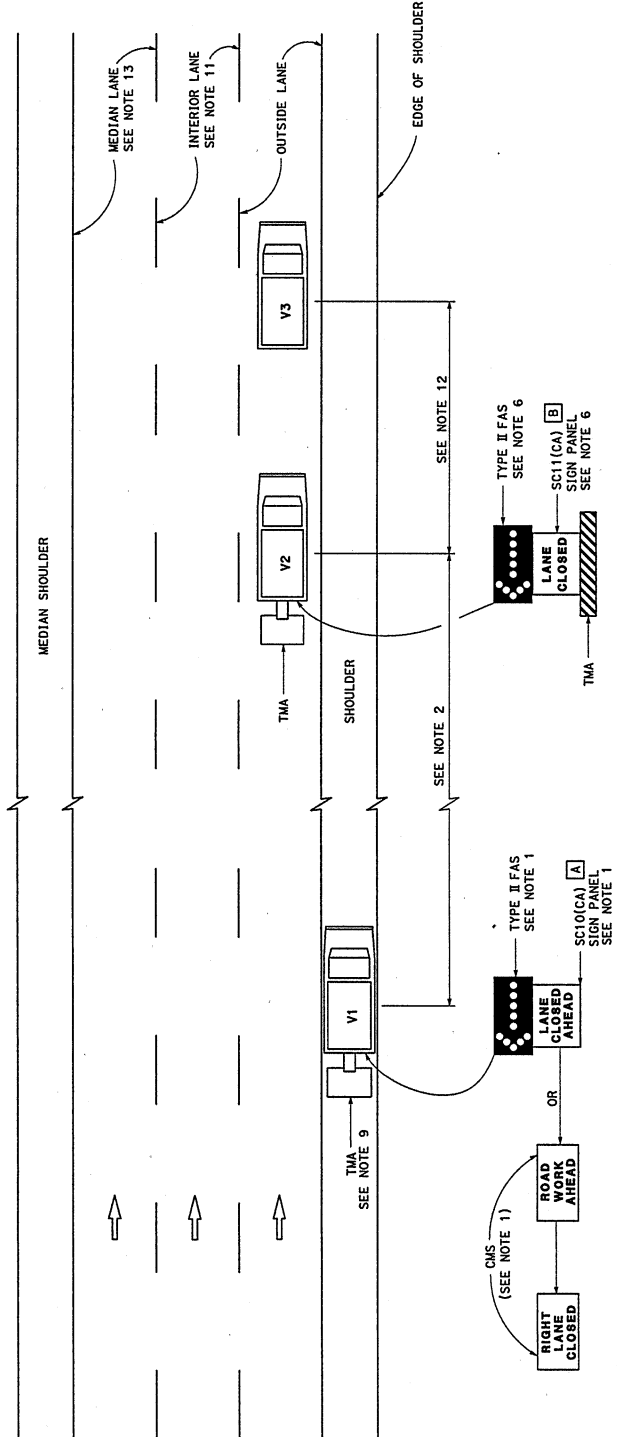
Dist COUNTY ROUTE PROJECT SHEET NO. SHEET TOTAL PROJECT SHEETS

Alfonso J. Torres
REGISTERED CIVIL ENGINEER

APR 11 19, 2019
PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS OR FOR DAMAGES OF ANY KIND ARISING OUT OF THE USE OF THIS PLAN SHEET.

TO ACCOMPANY PLANS DATED _____



SIGN PANEL SIZE (Min)

- A 66" x 36"
- B 54" x 42"

LEGEND

- V1 SIGN VEHICLE
- V2 SHADOW VEHICLE
- V3 WORK/APPLICATION VEHICLE
- CMS CHANGEABLE MESSAGE SIGN
- TMA TRUCK-MOUNTED ATTENUATOR

MOVING LANE CLOSURE ON MEDIAN LANE OR OUTSIDE LANE OF MULTILANE HIGHWAYS

11. For moving lane closure on interior lane of multilane highways, use Standard Plan T16.
12. The spacing between work vehicle(s) and the shadow vehicle, and between each shadow vehicle should be minimized to deter road users from driving in between.
13. When the work/application vehicle V3 occupies the median lane, sign vehicle V1 should drive in the median shoulder and indicate left lane closed ahead.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR MOVING LANE CLOSURE ON MULTILANE HIGHWAYS

NO SCALE

RSP T15 DATED APRIL 19, 2019 SUPERSEDES STANDARD PLAN T15 DATED MAY 31, 2018 - PAGE 293 OF THE STANDARD PLANS BOOK DATED 2018.

REVISED STANDARD PLAN RSP T15

NOTES:

1. Either a changeable message sign or a SC10(CA) sign panel on the rear of sign vehicle V1. The changeable message sign shall be sequenced to show the "ROAD WORK AHEAD" message first, followed by the "RIGHT LANE CLOSED" message. For median lane closure, the flashing arrow symbol shall be reversed with the arrowhead on the right and the changeable message sign shall show "LEFT LANE CLOSED".
2. If traffic queues develop, sign vehicle V1 should be positioned upstream from the end of queue. Sign vehicle V1 shall be positioned where highly visible when shoulders are not available.
3. A minimum sight distance of 1500' should be provided in advance of sign vehicle V1.
4. Sign vehicle V1 should remain at the beginning of horizontal or vertical curves until the other vehicles (V2 and V3) are far enough beyond the curve to resume the minimum sight distance of 1500'.
5. Vehicle-mounted sign panels shall have Type III or above retroreflective sheeting, black on white, or black on fluorescent orange, with 6" minimum series B letters per Caltrans sign specifications.

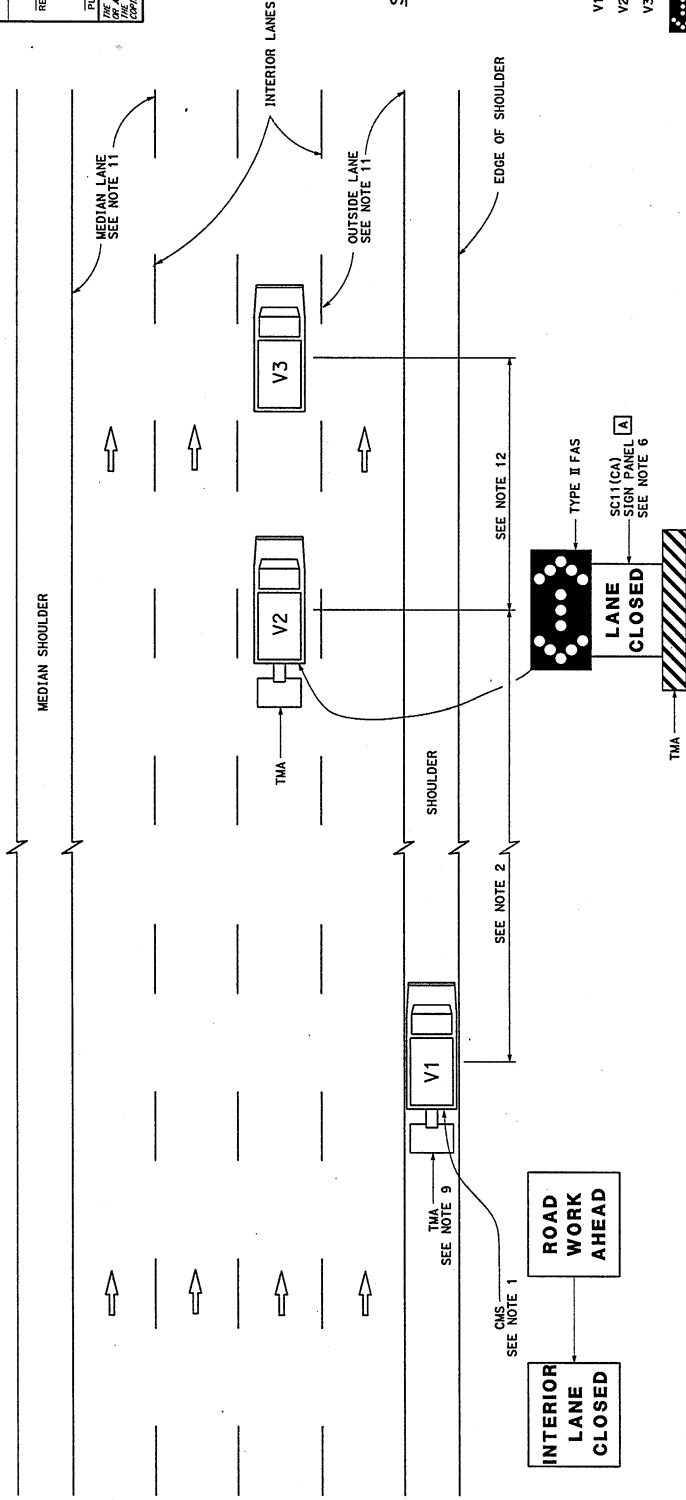
6. Shadow vehicle V2 shall be equipped with a truck-mounted attenuator. The sign panel shown shall be mounted on the rear of shadow vehicle V2. For median lane closure the flashing arrow sign symbol shall be displayed with the arrowhead on the right.
7. All vehicles used for lane closures shall be equipped with two-way radios, and the vehicle operators shall maintain communication during the work or application operation.
8. All vehicles shall be equipped with flashing or rotating amber lights.
9. If sign vehicle V1 encroaches into the traffic lane due to insufficient shoulder width, sign vehicle V1 shall be equipped with a truck-mounted attenuator. Sign vehicle V1 shall stay as close to the edge of shoulder as practicable.
10. Where workers would be on foot in the work area, a stationary type lane closure (Standard Plan T10, T11, etc., as applicable) shall be used instead of this plan.

DIST	COUNTY	ROUTE	TOTAL SHEETS	SHEET NO.	TOTAL SHEETS

Alta Forada
REGISTERED CIVIL ENGINEER

NOV. 31, 2018
PLANS FOR THE STATE OF CALIFORNIA
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS OR FOR THE SUCCESS OR FAILURE OF THIS PLAN SHEET.

Alta Forada
CRA002
Exp. 3-31-19
CIVIL



SIGN PANEL SIZE (Min.)
A 54" x 42"

LEGEND

- V1 SIGN VEHICLE
- V2 SHADOW VEHICLE
- V3 WORK/APPLICATION VEHICLE
- CMS FLASHING ARROW SIGN (FAS) IN FLASHING DOUBLE ARROW MODE
- TMA CHANGEABLE MESSAGE SIGN
- TMA TRUCK-MOUNTED ATTENUATOR

MOVING LANE CLOSURE ON INTERIOR LANE OF MULTILANE HIGHWAYS

- NOTES:**
- A changeable message sign shall be mounted on the rear of sign vehicle V1. The changeable message sign shall be programmed to display the "INTERIOR LANE CLOSED" message first, followed by the "INTERIOR LANE CLOSED" message. The message "CENTER LANE CLOSED" may be used in place of the "INTERIOR LANE CLOSED" message.
 - If traffic queues develop, sign vehicle V1 should be positioned upstream from the end of queue. Sign vehicle V1 shall be positioned where highly visible when shoulders are not available.
 - A minimum sight distance of 1500' should be provided in advance of sign vehicle V1.
 - Sign vehicle V1 should remain at the beginning of horizontal or vertical curves until the other vehicles (V2 and V3) are far enough beyond the curve to resume the minimum sight distance of 1500'.
 - Vehicle-mounted sign panels shall have Type III or above retroreflective sheeting, black on white, or black on fluorescent orange, with 6" minimum series D letters per California sign specifications.
 - Shadow vehicle V2 shall be equipped with a truck-mounted attenuator. The sign panel shown and a Type II flashing arrow sign shall be mounted on the rear of shadow vehicle V2.
 - All vehicles used for lane closures shall be equipped with communication devices to maintain communication during the work or application operation.
 - All vehicles shall be equipped with flashing or rotating amber lights.
 - If sign vehicle V1 encroaches into the traffic lane due to a rear-end shock, sign vehicle V1 shall be equipped with a truck-mounted attenuator. Sign vehicle V1 shall encroach as close to the edge of shoulder as practicable.
 - Where workers would be on foot in the work area, a stationary type lane closure (Standard Plan T10, T11 etc., as applicable) shall be used instead of this plan.
 - For moving lane closure on median lane or outside lane of multilane highways, use Standard Plan T15.
 - The spacing between work vehicle(s) and the shadow vehicles, and between each shadow vehicle should be minimized to deter road users from driving in between.

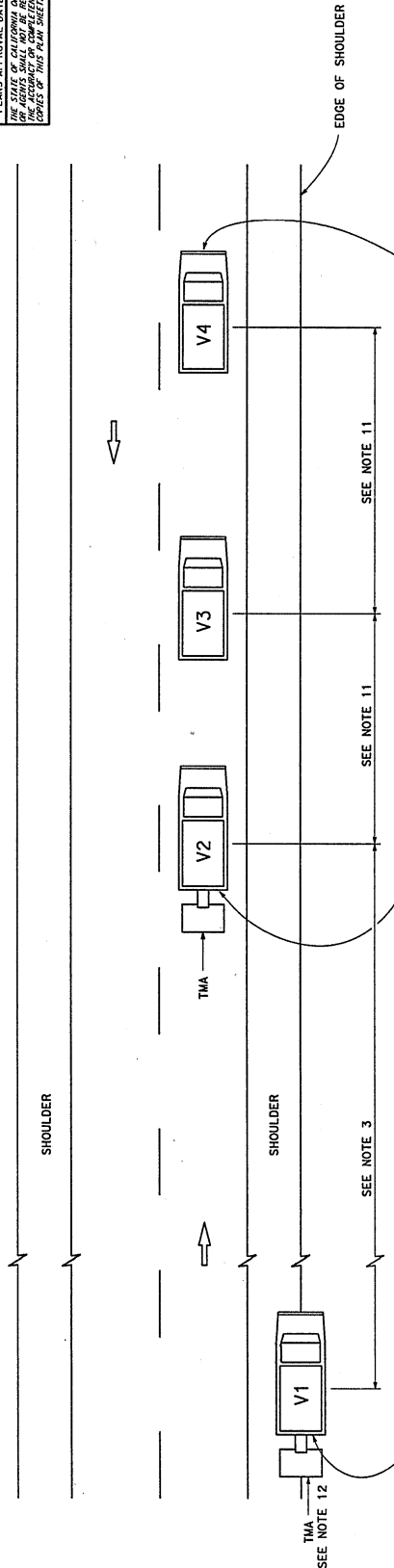
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM
FOR MOVING LANE CLOSURE
ON MULTILANE HIGHWAYS**

NO SCALE

T16

Dist	County	Route	Sheet No.	Total Sheets

REGISTERED CIVIL ENGINEER
 May 31, 2018
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS
 OR AGENTS SHALL NOT BE RESPONSIBLE FOR
 THE ACCURACY OR COMPLETION OF THESE
 COPIES OF THIS PLAN SHEET.



SIGN PANEL SIZE (Min)

A	72" x 42"
B	54" x 42"
C	54" x 24"

LEGEND

V1	SIGN VEHICLE
V2	SHADOW VEHICLE
V3	WORK/APPLICATION VEHICLE
V4	SIGN VEHICLE
TMA	TRUCK-MOUNTED ATTENUATOR
[Symbol]	FLASHING ARROW SIGN (FAS) IN FLASHING CAUTION MODE
[Symbol]	FLASHING ARROW SIGN (FAS) IN ALTERNATING DIAMOND CAUTION

- NOTES:**
1. Either a changeable message sign or a SC12(CA) "SLOW TRAFFIC AHEAD" sign shall be used in advance of sign vehicle V1. The changeable message sign shall be sequenced to show the "CAUTION" message first, followed by the "SLOW TRAFFIC AHEAD" message. A Type II flashing arrow sign may be used with the SC12(CA) sign panel.
 2. Sign vehicle V1 should be positioned where highly visible when shoulders are not available.
 3. If traffic queues develop, sign vehicle V1 should be positioned upstream from the end of queue.
 4. Vehicle-mounted sign panels shall have Type III or above retroreflective sheeting black on white or black on fluorescent orange with 6" minimum series D letters per Caltrans sign specifications.
 5. Shadow vehicle shall be equipped with a truck-mounted attenuator. The sign panel shown shall be mounted on the rear of shadow vehicle V2. The message "LANE CLOSED" may be used in place of the "DO NOT PASS" message.
 6. The sign panel shown shall be mounted on the front of sign vehicle V4, facing opposing traffic.
 7. All vehicles shall be equipped with flashing or rotating amber lights.
 8. Sign vehicle V4 will not be required when the work and vehicles V2 and V3 are 2' or more from the centerline of the highway during the work or application operations.
 9. All vehicles used for lane closures shall be equipped with two-way radios and the vehicle operators shall maintain communication during the work or application operation.
 10. This plan shall not be used where workers would be on foot in the work area. Use a stationary type lane closure (Standard Plan T13) for this condition.
 11. Minimize spacing between vehicles V2 and V3 and vehicles V3 and V4 to deter road users from driving in between them.
 12. If sign vehicle V1 approaches into the traffic lane due to insufficient shoulder width, sign vehicle V1 shall be equipped with a truck-mounted attenuator. Sign vehicle V1 shall stay as close to the edge of shoulder as practicable.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM
 FOR MOVING LANE CLOSURE
 ON TWO LANE HIGHWAYS**

NO SCALE
T17

1. GENERAL: The purpose of these Special Provisions is to provide the Permittee with specifications for water pollution control to minimize, prevent, or control the discharge of material into the air, surface waters, groundwater, and storm sewers owned by the State or local agencies. These provisions are not intended to take the place of the Caltrans Water Pollution Control Program (WPCP) for projects where soil disturbance from work activities less than one acre, or work activities of one acre or more subject to the preparation of the Caltrans Storm Water Pollution Prevention Plan (SWPPP). The Permittee must comply with the following Special Provisions and the direction of the State Representative. All Stormwater Best Management Practices (BMPs) must conform to Section 13 Water Pollution Control of Caltrans' Standard Specifications.

2. NPDES REQUIREMENTS: The Permittee must be responsible for full compliance with the Caltrans Storm Water Program and the Caltrans National Pollutant Discharge Elimination System (NPDES) Permit requirements (*Order No. 2012-0011-DWQ, NPDES No CAS000003*) and for and projects disturbing one acre or more of soil, full compliance with the California Construction General Permit (*Order No. 2009-0009-DWQ, NPDES No CAS000002*) or for projects for projects that have one acre or more of soil disturbance in the Lahontan Region (*Order No. R6T-2016-0010, NPDES No CAG616002*). It is the Permittee's responsibility to install, inspect, and repair or maintain facilities and devices used for water pollution control practices (BMPs) before performing daily work activities. Installation, inspection and maintenance responsibilities on the job site include: 1) soil stabilization materials in work areas that are inactive or prior to storm events, 2) water pollution control devices to control sediment and erosion, 3) implementation of spill and leak prevention procedures for chemical and hazardous substances stored on the job site, 4) material storage, 5) stockpile management, 6) waste management, 7) non-stormwater management, 8) water conservation, 9) tracking controls and 10) illicit connection, illegal discharge detection and reporting. The Permittee must report to the State representative when discharges enter into receiving waters, adjacent property, drainage systems or when discharges could be a cause or a threat for water pollution. The Permittee must also control illicit discharges or illegal dumping prior to start of daily work schedule. Copies of written notices or orders from the Regional Water Quality Control Board or other regulatory agency must be provided to the State representative within 48 hours of reported activity. For additional information on stormwater compliance, visit the State Water Resources Control Boards storm water Website at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater

3. RESPONSIBILITY FOR DEBRIS REMOVAL: The Permittee must be responsible for preventing sediment, trash, debris, and other construction waste from entering the street, the storm drains, local creeks, or any other bodies of water.

4. SPOILS AND RESIDUE: The Permittee must vacuum any saw-cut concrete waste material, debris, residue, etc. No spoils, debris, residue, etc. must be washed into a drainage system.

5. SWEEPING: Sweep paved roads at construction entrance and exit locations and surrounding paved areas daily within the job site during: 1) clearing and grubbing, 2) earthwork, 3) trenching, 4) soil disturbance, 5) pavement grinding and/or cutting, and 6) after observing tracking of material onto or off the State property. Keep dust to a minimum during sweeping activities. Use vacuum whenever dust generation is excessive or sediment pickup is ineffective.

Roadways or work areas must not be washed down with water. Street sweeping operations must conform to Section 13 Water Pollution Control of Caltrans' Standard Specifications.

6. VEHICLES AND EQUIPMENT: Permittee must prevent all vehicles, equipment, etc. from leakage or mud tracking onto roadways. If leaks cannot be repaired immediately, remove the vehicle or equipment from the job site.

7. MAINTENANCE AND FUELING OF VEHICLES AND EQUIPMENT: Maintenance and fueling of equipment must not result in any pollution at the job site. The Permittee must immediately clean up spills/leaks, and properly dispose of contaminated soil and materials.

8. CLEANING VEHICLES AND EQUIPMENT: Limit vehicle and equipment cleaning or washing at the job site except what is necessary to control vehicle tracking or hazardous waste. The Permittee must clean all equipment within a bermed area or over a drip pan large enough to prevent run-off. No soaps, solvents, degreasers, etc. must be used in State right-of-way. Any water from this operation must be collected and disposed of at an appropriate site. Containment berms or dikes must be used for fueling, washing, maintaining and washing vehicles or equipment in outside areas. Containment must be performed at least 100 feet from concentrated flows of storm water, drainage courses, and storm drain inlets if within a flood plain, otherwise at least 50 feet if outside the floodplain. Keep adequate quantities of absorbent spill- cleanup material and spill kits in the fueling or maintenance area and on fueling trucks.

9. DIESEL FUELS: The use of diesel fuel from petroleum or other fossil fuel as a form-oil or solvent is not allowed.

10. WEATHER CONDITIONS AT WORKSITE: Any activity that would generate fine particles or dust that could be transported off site by stormwater must be performed during dry weather.

11. WIND EROSION PROTECTION: The use of Wind Erosion BMPs must be deployed year-round in instances where dust or fine particles could be transported off site.

11. HOT MIX ASPHALT: Runoff from washing hot mix asphalt must not enter into any drainage conveyances.

12. PROTECTION OF DRAINAGE FACILITIES: The Permittee must protect/cover gutters, ditches, drainage courses, and inlets with gravel bags, fiber rolls, State approved fabric filters, etc., to the satisfaction of the State representative during grading, paving, saw-cutting, etc. and materials must conform to Section 13-6.02 Materials for Water Pollution Control of Caltrans' Standard Specifications. No such protection measures must cause an obstruction to the traveling public. The Permittee must implement spill and leak prevention procedures for chemicals and hazardous substances stored on the job site (including secondary containment requirements) in accordance to section 13-4.03B Spill Prevention and Control, and 14-11 Hazardous Waste and Contamination, Water Pollution Control of Caltrans' Standard Specifications.

13. PAINT: Rinsing of painting equipment and materials is not permitted in State right-of-way. When thoroughly dry, dispose of the following as solid waste: dry latex paint, paint cans, used brushes, rags, gloves, absorbent materials, and drop cloths. Oil based paint sludge and unusable thinner must be disposed of at an approved hazardous waste site.

14. CONSTRUCTION MATERIALS: Stockpile of all construction materials, including, but not limited to; pressure treated wood, asphalt concrete, cold mix asphalt concrete, concrete, grout, cement containing premixes, and mortar, must conform to section 13-4.03C (2) Material Storage & 13-4.03C (3) Stockpile Management of Caltrans' Standard Specifications.

15. CONCRETE EQUIPMENT: Concrete equipment must be washed in a designated washing area in a way that does not contaminate soil, receiving waters, or storm drain systems.

16. EXISTING VEGETATION: Established existing vegetation is the best form of erosion control. Minimize disturbance to existing vegetation. Damaged or removed vegetation must be replaced as directed by the State Representative.

17. SOIL DISTURBANCE: Soil disturbing activities must be avoided during the wet weather season. If construction activities during wet weather are allowed in your permit, all necessary erosion control and soil stabilization measures must be implemented in advance of soil disturbing activity.

18. SLOPE STABILIZATION AND SEDIMENT CONTROL: Consider a certified expert in Erosion and Sediment control in cases where slopes are disturbed during construction. The Permittee is directed to comply with Section 13.5 Temporary Soil Stabilization and Section 21 Erosion Control of Caltrans' Standard Specifications during application of temporary soil stabilization measures to the soil surface. Fiber rolls or silt fences may be required down slope until permanent soil stabilization is established. Remove the accumulated sediment whenever the sediment accumulates to 1/3 of the linear sediment barrier height. The Permittee must limit the use of plastic materials when more sustainable, environmentally friendly alternatives exist or when environmental regulations prohibit their use within the project.

19. STOCKPILES: Stockpiles containing aggregate and/or soil must be stored at least 100 feet from concentrated flows of storm water, drainage courses, and storm drain inlets if within a flood plain, otherwise at least 50 feet if outside the floodplain, and must be covered and protected with a temporary perimeter sediment barrier. Cold mix stockpiles must be stored on an impermeable surface and covered with 9 mil plastic to prevent contact with water. Minimize stockpiling of materials on the job site. Manage stockpiles by implementing the water pollution control practices in Section 13-4.03C (3) Stockpile Management of the State of California standard specifications for construction.

20. DISCOVERY OF CONTAMINATION: The State Representative must be notified in case any unusual discoloration, odor, or texture of ground water, is found in excavated material or if abandoned, underground tanks, pipes, or buried debris are encountered.

21. SANITARY AND SEPTIC WASTE: Do not bury or discharge wastewater from a sanitary or septic system within the highway. Properly connected sewer facilities are free from leaks. With State Representative approval place portable sanitary facility at least 50 feet away from storm drains, receiving waters, and flow lines. Permittee must comply with local health agency provisions when using an on-site disposal system.

22. LIQUID WASTE: Prevent job site liquid waste from entering storm drain systems and receiving waters. Drilling slurries, grease or oil-free waste water or rinse water, dredging, wash water or rinse water running off a surface or other non-storm water liquids not covered under separate waste water permits must be held in structurally sound, leak-proof containers, such as portable bins or portable tanks. Store containers at least 50 feet away from moving vehicles and equipment. Liquid waste may require testing to determine hazardous material content prior to disposal. All measures must conform to section 13-4.03D (5) Liquid Waste, Water Pollution Control of Caltrans' Standard Specifications.

23. WATER CONTROL AND CONSERVATION: Manage water use in a way that will prevent erosion and the discharge of

pollutants into storm drain systems and receiving waters. Direct runoff, including water from water line repair from the job site to areas where it can infiltrate into the ground. Direct water from off-site sources around the job site or from contact with jobsite runoff.

24. PILE DRIVING: Keep spill kits and cleanup materials at pile driving locations. Park pile driving equipment over drip pans, absorbent pads, or plastic sheeting with absorbent material, and away from stormwater run-on when not in use.

25. DEWATERING: Dewatering consists of discharging accumulated storm water, groundwater, or surface water from excavations or temporary containment facilities. All dewatering operations must comply with the latest Caltrans guidelines including the *Field Guide for Construction Site Dewatering*. Contact State representative for approval of dewatering discharge by infiltration or evaporation, otherwise, any effluent discharged into a permitted storm water system requires approval from the Regional Water Quality Control Board. Prior to the start of dewatering, the Permittee must provide the State Representative with a dewatering and discharge work plan that complies with section 13-4.03G Dewatering, Water Pollution Control of Caltrans' Standard Specifications. A copy of the Waste Discharge Permit and a copy of a valid WDID number issued by the Regional Board must be provided to the State representative.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ENCROACHMENT PERMIT UTILITY MAINTENANCE PROVISIONS
TR – 0161 (Rev. 04/2018)

Any public utility or public corporation who lawfully maintains a utility encroachment, or their agent, may perform routine or emergency maintenance on such facility in accordance with the following provisions:

UM1. EXCLUSIONS: These provisions do not authorize tree trimming, work on freeways, expressways, or other activities not specifically provided for in this permit.

UM2. DELETED. Provision left blank intentionally.*

UM3. DELETED. Provision left blank intentionally.*

UM4. DELETED. Provision left blank intentionally.*

UM5. EMERGENCY REPAIRS: The permittee may make emergency repairs, alter traffic flow, and excavate through improved surfaces only when breaks in the conduit, cable or pipeline over or under the pavement present a definite public hazard or serious interruption of essential service. In such cases, the Department's representative shall be notified immediately.

UM6. OPEN EXCAVATIONS: No excavation shall be left open after daylight hours unless specifically authorized and adequate protection for traffic is provided in accordance with the General Provisions "Public Traffic Control".

Backfill and pavement replacement shall be performed in accordance with the applicable General Provisions (i.e., "Restoration and Repairs in State Highway rights-of-way").

UM7. SERVICE CONNECTION: These provisions do not authorize installation of conduit, cable, gas, or water service connections within State Highway rights-of-way, regardless of the location of the main, existing conduit, or cable. All new underground or pipe abandon services must be covered by individual permits. See Section "UM8-4" regarding service connections for aerial wires.

UM8. ROUTINE INSPECTION AND MAINTENANCE:

1. Routine Maintenance and Inspection:

Roadbed work shall be conducted between 9:00 AM and 3:00 PM, or as otherwise authorized, in writing, by the Department's representative.

2. Manholes:

The permittee may open existing manholes to repair underground cables. Where the manhole lies within the improved surface of the highway, the permittee will provide adequate protection for traffic in accordance with the General Provisions "Public Traffic Control".

3. Excavations:

Routine inspection and repair of pipeline and cables shall:

- A. Not be made in improved surfaces, landscaped areas or closer than 10' to the edge of the pavement without a special permit; and

- B. Not uncover more than 50' of line at any one time.

4. Pole Lines:

Permittee is authorized to:

- A. Stub, or reset existing pole, provided no change in location of pole or anchor is made. Stubs and anchors must not be placed between existing poles and the traveled way.
- B. Replace poles, guy poles, and crossarms in same location limited to two (2) consecutive poles. No additional poles or guys poles are authorized under this routine maintenance provision.
- C. Replace broken pins and/or insulators, repair broken wires, pull slack wires, and replace or pull broken or slack guys.
- D. Repair and complete transfer work on existing aerial cables.
- E. Install new and replace existing transformers on existing poles.
- F. Replace aerial wires and cross arms on existing poles except where wires cross the highway. Unless otherwise specifically required by the Department, protected cable, tree wire or plastic tree wire guard used for communication lines may be used through trees where necessary, provided the appearance of the tree or the tree itself will not be damaged. ***This section (F) does not apply to scenic highways.***
- G. Installations and clearances shall be equal to those required by either the California Public Utilities Commission Orders or the California Occupational Safety and Health (CAL-OSHA) Safety Orders, whichever is greater. ***Also see "OH 2" of the Overhead Utility Provisions.***
- H. Clear grass from around base of poles and excavate around poles for inspection, including tamping and straightening. The use of herbicides or other chemicals is not authorized by this permit. A separate encroachment permit must be applied for and issued for that purpose.

***NOTE: Special Provision was deleted since it is already part of the EP General Provisions (TR-0045).**

ENCROACHMENT PERMIT OVERHEAD UTILITY PROVISIONS

TR - 0162 (Rev. 12/2007)

OH1. LOCATION POLE LINES, ETC.:

Pole lines shall be located as specifically directed in the provisions of the permit.

shall they be so attached as to girdle the tree or interfere with its growth. Guy wires shall be kept to a minimum elevation above ground as directed.

OH2. INSTALLATIONS AND CLEARANCES:

Horizontal clearances, as measured from the edge of traveled way to the installation, shall be in accordance with the minimum desirable clear recovery zone for a conventional highway which is 20'. In no case is a pole allowed closer than 1.5' behind a curb face or less than 2' from the edge of a slope catch point or a driveway, or within a drainage ditch. New installations should adhere to setback limits or should be protected. Consideration should be given to placing such encroachments underground in shoulder or parking areas. Also, installations and clearances shall comply with applicable orders of the Public Utilities Commission of the State of California, or the California Occupational Safety and Health (CAL-OSHA) Safety Orders, whichever is greater.

OH6. ANCHOR:

No anchor shall be placed closer to the traveled way than the pole itself.

OH7. REMOVE OLD POLES, GUY, and STUBS:

The entire length of poles and stubs shall be removed from the ground and the holes backfilled. Guy rods shall be removed to a minimum depth of 3' below original ground.

OH8. AERIAL CROSSING:

No work involving new or additions to existing aerial crossings shall be performed in rainy, foggy or inclement weather which creates hazardous conditions for highway users.

OH3. PERMISSION FROM PROPERTY OWNERS:

When necessary, permission shall be secured from the abutting property owner(s) in written form by the permittee before starting work.

OH9. CLEARANCE FROM CURBS:

The face of poles shall not be placed closer than 1.5' from any curb face.

OH4. CLEARANCE OF TREES:

Unless otherwise specifically required by the Department, protected cables, tree wires or plastic tree wire guards used for communication lines may be used through trees where necessary, provided the installation and any necessary pruning does not damage or affect the appearance of the tree or the tree itself will not be damaged. This allowance does not apply to scenic highways.

OH10. POLE INSTALLATION OR REMOVAL:

Where poles are to be installed or removed behind the curb in a parkway that is paved with Portland Cement Concrete, the concrete shall be saw cut, removed and replaced to the nearest score lines or expansion joints. The hole in the PCC sidewalk created by pole removal shall be temporarily backfilled with 2" minimum temporary AC at the time the pole is removed. Poles are not to be installed without prior approval of the final location by the Department's field representative.

OH5. GUY WIRES:

No guy wires are to be attached to trees except as may be specified in the permit and in no event

OH11. CONTROLLED ACCESS R/W:

Poles, anchors, etc., shall not be installed inside of any controlled access right of way. All requests shall be packaged as "exceptions" to policy.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ENCROACHMENT PERMIT UNDERGROUND UTILITY PROVISIONS
TR - 0163 (Rev. 04/2018)

High priority utilities, pressurized facilities, pipes or ducts 6" or larger in diameter, or placement of multiple pipes or ducts, regardless of diameters are required to be encased on both conventional and access controlled highway rights-of-way.

A "High Priority Utility" is defined as: 1) a natural gas pipeline greater than 6" in diameter, or with normal operating pressures greater than 60 psig, 2) petroleum pipelines, 3) pressurized sanitary sewer pipelines, 4) high-voltage electric supply lines, conductors, or cables that have a potential to ground of greater than or equal to 60 kV, or 5) hazardous materials pipelines that are potentially harmful to workers or the public if damaged.

An exception to this policy may be allowed on a case by case basis for the installation of Uncased High Pressure Natural Gas Pipelines when in compliance with the TR-0158 Special Provisions.

The pavement or roadway must not be open-cut unless specifically allowed under a separate "UT" permit. Utility installations must not be installed inside of culverts or drainage structures.

For additional details regarding longitudinal utility encroachments on both conventional and access controlled highway rights-of-way, see Chapter 600.

UG 1. CASINGS:

Casings must be steel conduit with a minimum inside diameter sufficiently larger than the outside diameter of the pipe or ducts to accommodate placement and removal. The casing can be either new or used steel pipe, or an approved connector system. Used pipe must be pre-approved by the Department's engineer or representative before installation.

When the method of Horizontal Directional Drilling (HDD) is used to place casing, the use of High Density Polyethylene Pipe (HDPE) as casing is acceptable.

Reinforced Concrete Pipe (RCP) in compliance of State Standard Specifications is an acceptable carrier for storm drain gravity flow or non-pressure flow. RCP when installed by Bore & Jack must have rubber gaskets at the joints, and holes for grouting of voids left by jacking operations, see "E" below.

- A. Minimum wall thickness for steel pipe casing for different lengths and diameters of pipes are as follows:

Minimum Wall Thickness		
Casing Pipe (Diameter)	Up to 150 ft (Length)	Over 150 ft (Length)
6" to 28"	1/4"	1/4"
30" to 38"	3/8"	1/2"
40" to 60"	1/2"	3/4"
62" to 72"	3/4"	3/4"

- B. Spiral welded casing is authorized provided the casing is new and the weld is smooth.
- C. The ends of the casing must be plugged with ungrouted bricks or other suitable material approved by the Department's representative.
- D. When required by the Department's representative, the permittee must at his expense, pressure grout the area between the pavement and the casing from within the casing in order to fill any voids caused by the work covered under this permit. The increments for grout holes inside the pipe must be 8' staggered and located 22-1/2 degrees from vertical axis of the casing. Pressure must not exceed 5 psig for a duration sufficient to fill all voids.

- E. There is a spacing requirement when placement of multiple encasements is requested. The distance between multiple encasements must be the greater of either 24" or twice that of the diameter of the larger pipe being installed.
- F. Casings placed within access controlled highway rights-of-way must extend to the right-of-way lines.
- G. Wing cutters, if used, must be a maximum of 1" larger than the casing. Voids caused by the use of wing cutters must be grouted in accordance with "E" above.
- H. A band welded to the leading edge of the casing must be placed square to the alignment. The band must not be placed on the bottom edge. Flaring the lead section on bores over 100' must not be permitted.
- I. All casing lengths must equal to the auger length.
- J. The casings within conventional highways must extend 5' beyond the back of curb or edge of pavement, or to the right of way line if less. Where PCC cross-gutter exists, the casing must extend at least 5' beyond the back of the cross-gutter, or to the right of way line if less.

Bore and receiving pits must:

- A. be located at least 10' or more from the edge of pavement on conventional highways in rural areas.
- B. be located 5' behind the concrete curb or AC dike on conventional highways in urban areas.
- C. be located 5' outside the toe of slope of embankment areas.
- D. be located outside access controlled highway rights-of-way.
- E. be adequately fenced and/or have a Type-K barrier placed around them.
- F. be adequately shored in accordance with Cal-OSHA requirements. Shoring for jacking and receiving pits located within 15' of traffic lanes on a State highway must not extend more than 36" above the pavement grade unless otherwise authorized by Department's representative. Reflectors must be affixed to the shoring on the sides facing traffic. A 6' chain link fence must be installed around the perimeter of the pits during non-working hours.

- G. have crushed-rock and sump areas to clear groundwater and water used to clean the casing. Where ground water is found and pumping is required, the pits must be lined with filter fabric.

UG 2. HORIZONTAL DIRECTIONAL DRILLING: Bore and receiving pits

When HDD is the approved method for pipe installation, drilling plans must contain information listed as follows:

1. Location of: entry and exit point, access pit, equipment, and pipe staging area.
2. Proposed drill path alignment (horizontal and vertical).
3. Location and clearances of all other facilities.
4. Depth of cover.
5. Soil analysis.*
6. Carrier pipe length, diameter, thickness, and material (HDPE/steel) and ream pipe diameter.
7. Detailed carrier pipe calculations confirming ability to withstand installation loads and long term operational loads including H2O.
8. Proposed drilling fluid composition, viscosity, and density (based on soils analysis).
9. Drilling fluid pumping capacity, pressures, and flow rates
10. State right-of-way lines, property, and utility right of way or easement lines.
11. Elevations.
12. Type of tracking method/system and accuracy used.
13. A detailed plan for monitoring ground surface movement (settlement or heave) resulting from the drilling operation.

- * May be waived by the District Permit Engineer for HDD jobs less than 6" in diameter and a traverse crossing less than 150'.

UG 3. LIMIT OF EXCAVATION:

No excavation is allowed within 10' from the edge of pavement except in curbed urban areas or as specified in the permit. Where no curb exists and excavations within 10' of the traveled way are to remain open, a temporary Type-K railing must be placed at a **10:1** taper or as otherwise directed by the Department.

UG 4. TUNNELING:

Review, requirements of Section **603.6A-6** of the Encroachment Permits Manual, if applicable. In addition to the requirements of "UG1" the following requirements apply:

- A. For the purpose of this provision, a tunnel is defined as any pipe, 30" or larger in diameter placed.
- B. When tunneling is authorized, the permittee must provide full-time inspection of tunneling operations. The Department's representative must monitor projects.
- C. A survey grid must be set and appropriately checked over the centerline of the pipe jacking or tunneling operation. Copies of the survey notes must be submitted to the Department's representative.
- D. Sand shields may be required as ground conditions change.
- E. The method used to check the grade and alignment must be approved by the Department's representative.
- F. Pressure grouting for liner plates, rib and spiling, or rib and lagging tunnels must be at every 8' section or at the end of work shift before the next section is excavated. All grouting must be completed at the end of each workday.

- G. A method for securing the headway at the end of each workday is required. Breastplates must be installed during working hours for running sand or super-saturated soil.

UG 5. CLEARANCE AND OFFSET REQUIREMENTS:

All installations must comply with Chapter 17, Article 4 of the Project Delivery Procedures Manual (PDPM) for utility clearance and offset requirements.

UG 6. FACILITIES EXEMPT FROM THE HIGH PRIORITY UTILITY REQUIREMENTS:

The following utilities (not including State owned utilities) are exempt from these policies and do not need to be plotted on the plans unless the depiction of the utility is needed for interconnectivity with the proposed work:

- Natural gas service lines less than 2 inches in pipe diameter that have normal operating pressures of 60 psig or less
- Subsurface electrical service connections with a potential to ground of 50 volts or less
- Service connections (laterals) for water, sewer, telephone, telecommunication, and cable service

All State owned utilities must be plotted on the plans.

UG 7. DETECTOR STRIP:

A continuous metallic detector strip must be provided with non-metallic main installations. Service connections must be installed at right angles to the centerline of the State highway where possible.

UG 8. BACKFILLING:

All backfilling must conform to the applicable sections of the Department's Standard Specifications. Ponding or jetting methods of backfilling are prohibited.

Any required compaction tests must be performed by a certified laboratory at no cost to the Department and the laboratory report furnished to the Department's representative.

UG 9. ROADWAY SURFACING AND BASE MATERIALS:

When the permit authorizes installation by the open cut method, surfacing and base materials and thickness thereof must be as specified in the permit.

Temporary repairs to pavements must be made and maintained upon completion of backfill until permanent repairs are made. Permanent repairs to pavements must be made within thirty (30) days of completion of backfill unless otherwise specified by the Department. Temporary pavement patches must be placed and maintained in a smooth riding plane free of humps and/or depressions.

UG 10. DAMAGE TO TREE ROOTS:

Tree roots 3" or larger in diameter will not be cut within the tree drip line when trenching or other underground work is necessary adjacent to roadside trees. If such roots are encountered, they must be tunneled under, wrapped in burlap and kept moist until the trench is backfilled. Trenching machines may not be used under trees if the trunk or limbs will be damaged by their use.

If the trees involved are close together and of such size that it is impractical to protect all roots over 3" in diameter, or when roots are less than 4" in diameter, outside tree drip line, special arrangements may be made whereby pruning of the tree tops to balance the root loss can be done by the permittee under the close supervision of the District Landscape Specialist or District Tree Maintenance Supervisor. Manholes must not be installed within 20' of any trunk.

UG 11. PIPES ALONG ROADWAY:

Pipes and conduits paralleling the pavement must be located as shown on the plans or located outside of pavement as close as possible to the right-of-way line.

UG 12. BORROW AND WASTE:

Borrow and waste will be allowed within the work limits only as specified in the permit.

UG 13. MARKERS:

The permittee must not place any markers that create a safety hazard for the traveling public or departmental employees.

UG 14. CATHODIC PROTECTION:

The permittee must perform stray current interference tests on underground utilities under cathodic protection. The permittee must notify the Department prior to the tests. The permittee must perform any necessary corrective measures and advise the Department.

UG 15. DELETED. Provision left blank intentionally

UG 16. INSTALLATION BY OPEN CUT METHOD:

When the permit authorizes installation by the open cut method no more than one lane of the highway pavement must be open-cut at any one time. Any exceptions must be in writing by the Department's representative. After the pipe is placed in the open section, the trench is to be backfilled in accordance with specifications, temporary repairs made to the surfacing and that portion opened to traffic before the pavement is cut for the next section.

If, at the end of the working day, backfilling operations have not been properly completed, steel plate bridging must be required to make the entire highway facility available to the traveling public in accordance with the "Steel Plate Bridging Special Provisions" (TR-0157)

UG 17. PAVEMENT REMOVAL:

PCC pavement to be removed must be saw cut at a minimum depth of 4" to provide a neat and straight pavement break along both sides of the trench. AC pavement must be saw cut to the full depth.

Where the edge of the trench is within 2' of existing curb and gutter or pavement edge, the asphalt concrete pavement between the trench and the curb or pavement edge must be removed.

UG 18. DELETED. Provision left blank intentionally.*

UG 19. SIDES OF OPEN-CUT TRENCHES:

Sides of open cut trenches in paved areas must be kept as nearly vertical as possible. Trenches must not be more than 2' wider than the outside diameter of the pipe to be laid therein, plus the necessary width to accommodate shoring.

UG 20. EXCAVATION UNDER FACILITIES:

Where it is necessary to excavate under existing curb and gutter, or underground facilities, the void must be backfilled with two (2) sack cement-sand slurry.

UG 21. PERMANENT REPAIRS TO PCC PAVEMENT:

Repairs to PCC pavement must be made of Portland Cement Concrete containing a minimum of 658 lbs. or 7 sack of cement per cubic yard. Replaced PCC pavement must equal existing pavement thickness. The concrete must be satisfactorily cured and protected from disturbance for not less than forty-eight (48) hours. Where necessary to open the area to traffic, no more than two (2%) percent by weight of calcium chloride may be added to the mix and the road opened to traffic after six (6) hours.

UG 22. REMOVAL OF PCC SIDEWALKS OR CURBS:

Concrete sidewalks or curbs must be saw cut to the nearest score marks and replaced equal in dimension to that removed with score marks matching existing sidewalk or curb.

UG 23. SPOILS:

No earth or construction materials are to be dragged or scraped across the highway pavement, and no excavated earth placed or allowed to remain at a location where it may be tracked onto the highway traveled way, or any public or private approach by the permittee's construction equipment, or by traffic entering or leaving the highway traveled way. Any excavated earth or mud so tracked onto the highway pavement or public or private approach must be immediately removed by the permittee.

***NOTE:** Special Provision was deleted since it is already part of the EP General Provisions (TR-0045)

VIBRIO GENERATING EQUIPMENT (GV) SPECIAL PROVISIONS

In addition to the attached General Provisions (TR-0045), the following special provisions are also applicable.

1. Equipment shall not be operated on any pavement or other paved surface.
2. Equipment shall not be operated within access-controlled rights of way.
3. Equipment shall be placed and operated as close to the right of way line as possible.
4. Equipment shall be operated so that no damage will occur to trees, plants, wells, culverts, headwalls, structures or other improvements.
5. This permit does not authorize the shear wave method.
6. Equipment shall not be parked on or operated on the traveled way except for normal legal travel.
7. Personnel working within the State right of way shall wear hard hats and orange jackets, shirts or vests.
8. All mud, dirt or gravel tracked onto the highway pavement shall be immediately and completely removed.
9. Dirt areas within the State right of way disturbed by Geophysical testing operations shall be graded back to its original shape and grade.

Collected By A. Cardenas	Permit No. (Original) 08-22-N-UT-0838
Rider Fee Paid \$ EXEMPT	Dist/Co/Rte/PM 08-SBD-40, PM R154.34/R154.34
Date 08/03/2023	Rider Number 08-23-N-RT-8131

TO: **Pacific Gas and Electric**
PO Box 337
Needles, CA 92363
Attn: David Diaz
760-903-3013

, PERMITTEE

In compliance with (your, ~~our~~) request of **August 2, 2023** we are hereby amending the above numbered encroachment permit as follows: _____ DATE


Date of completion extended to: NO CHANGE **February 12, 2024** _____ DATE

Time extension.

Except as amended, all other terms and provisions of the original permit shall remain in effect.

COPIES TO:
 Maintenance: Needles (2361 / 663)
 Inspector: Jorge Ochoa
 Superintendent: Joanna Lopez

APPROVED:

 Catalino A Pining III , District Director
 BY: 
Andy Quach , P.E. , District Permit Engineer

Collected By I. Beshay	Permit No. (Original) 08-22-N-UT-0838
Rider Fee Paid \$ EXEMPT	Dist/Co/Rte/PM 08-SBD-40, PM R154.34/R154.34
Date 10/19/2023	Rider Number 08-23-N-RD-8178

TO: Pacific Gas and Electric
PO Box 337
Needles, CA 92363
Attn: David Diaz
760-903-3013

, PERMITTEE

In compliance with (your, ~~our~~) request of October 19, 2023 we are hereby amending the above numbered
 encroachment permit as follows: _____ DATE

Date of completion extended to: NO CHANGE February 12, 2024
 _____ DATE

Please remove the following statement from permit:

"Caltrans maintenance unit will perform traffic control for this project and PG&E will be billed for the work"

and replace it with:

"Traffic control shall be in accordance with 2014 CAMUTCD and the 2023 Caltrans Standard Plans and Specifications"

Except as amended, all other terms and provisions of the original permit shall remain in effect.

COPIES TO: Maintenance: Needles (2361 / 663) Inspector: Martin Morris Superintendent: Joanna Lopez	APPROVED: Catalino A. Pinning III, District Director
	BY: Andy Quach , P.E. , District Permit Engineer

Collected By G. Mikaeil	Permit No. (Original) 08-22-N-UT-0838
Rider Fee Paid \$ EXEMPT	Dist/Co/Rte/PM 08-SBD-40, PM R154.34/R154.34
Date 02/01/2024	Rider Number 08-24-N-RT-8022

TO: **Pacific Gas and Electric**
PO Box 337
Needles, CA 92363
Attn: David Diaz
760-903-3013

, PERMITTEE

In compliance with (your, ~~our~~) request of February 1, 2024 we are hereby amending the above numbered
 encroachment permit as follows: _____ DATE

Date of completion extended to: NO CHANGE May 12, 2024
 _____ DATE

Time Extension

Except as amended, all other terms and provisions of the original permit shall remain in effect.

COPIES TO: Maintenance: Needles (2361 / 663) Inspector: Jorge Ochoa Superintendent: Joanna Lopez	APPROVED: Catalino A. Pinning III, District Director
	BY:  Andy Quach, P.E. , District Permit Engineer



Infrastructure Delivery and Operations

Katie Hobbs, Governor
Jennifer Toth, Director
Gregory Byres, State Engineer
Steve Boschen, Division Director

November 1, 2023

David Diaz
Pacific Gas and Electric Company
145453 National Trails Highway
Needles, CA 92363

Re: Permit 1232588

Dear David Diaz:

Your Permit to use State Highway Right of Way has been approved and a copy of the permit is attached for your records. Please read the specifications and standards which are part of your approved permit.

A Work Notification form must be filled out and submitted to the area permits office by email along with the proposed traffic control plan at least three working days prior to beginning work.

Your contractors must provide insurance including workers compensation to this office for review and approval prior to beginning any work.

If at any time during the performance of your work, you determine it will not be possible to complete the permitted work by the expiration date on your permit, please submit a written request for a time extension. Your request should contain the permit number, the reason for the delay and the additional time needed. Please submit your request to northwestpermit@azdot.gov for approval and processing.

Please notify this office via email of completion of the project.

The safety of your workers and the users of the State Highway are of great concern to us. Prior to beginning work please ensure you are in compliance with the Traffic Control requirements of your permit.

Best wishes in the execution of your work.

Respectfully,

Chris Denney

Permits Tech III

3660 East Andy Devine Ave

Kingman AZ 86401

928-681-6038

CDenney@azdot.gov





ARIZONA DEPARTMENT OF TRANSPORTATION

Infrastructure Delivery and Operations Division

ENCROACHMENT PERMIT APPLICATION

www.azdot.gov

FOR ADOT USE:

ADOT Agreement Number: _____ ECS JPA OTHER:

PERMIT NUMBER: 1232588 ROUTE: I-40 MILEPOST: .00-1.00

ADOT PROJECT NUMBER: T127584 ADOT ENGINEERING STATION: _____

NAME OF ENCROACHMENT OWNER: Pacific Gas and Electric Company Mailing Address of Owner: P.O. Box 337 City: Needles State: CA Zip: 92363 Phone: 760-903-3013 E-mail Address: d3d6@pge.com Local Point of Contact Name: David Diaz Phone Number: 760-903-3013		NAME OF PRIME CONTRACTOR / FIRM: If other than Encroachment Owner Keith Sheets/CH2M Engineers, Inc. (also called Jacobs) Mailing Address of Prime Contractor / Firm: 1301 N. Green Valley Pkwy #200 City: Henderson State: Nevada Zip: 89074 Phone: 510-541-8542 E-mail Address: keith.sheets@jacobs.com Local Point of Contact Name: Ralph Dresel Phone Number: 702 210 3191	
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TRAFFIC CONTROL COMPANY: Safety Network	CONTACT NAME: Nicholas Forsythe	PHONE NUMBER: 661-808-1914
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HIGHWAY/ROUTE: I-40/West Bound Approximately: _____ Feet: N S E W of Milepost # _____ or Cross Street: Golden Shores

Side of Highway: (check one) N S E W City (in or near): Needles

Encroachment Owner's Project or Parcel Number: PG&E Topock Compressor Station Project Duration: Approx. 2 months

DESCRIPTION OF PROPOSED WORK OR ACTIVITY TO OCCUR IN RIGHT-OF-WAY:
Placement of traffic control devices shown in the Traffic Control Plan.

The Encroachment Owner will be the Permittee. By signing this application, the Encroachment Owner and the Prime Contractor / Firm acknowledge that the information given and statements made in this application are true and correct to the best of his/her knowledge. THE ENCROACHMENT OWNER MUST ALSO SIGN ON PAGE TWO TO AGREE TO ACCEPT THE GENERAL OBLIGATIONS AND RESPONSIBILITIES AS DESCRIBED ON PAGE TWO OF THIS APPLICATION. By accepting an approved encroachment permit ONCE ISSUED the Permittee agrees to the requirements described in the permit, to be responsible for all permit requirements, and to comply with ADOT's requirements as set out in the permit. An approved permit consists of, but is not limited, to this application and final supporting documentation approved by ADOT, and any requirements set by ADOT. NO WORK SHALL TAKE PLACE INSIDE THE RIGHT OF WAY WITHOUT AN ADOT APPROVED PERMIT ON SITE.

David Diaz Encroachment Owner (Print Name and Sign)	David Diaz Digitally signed by David Diaz Date: 2023.10.24 12:25:04 -07'00'	10/24/2023 Date
Keith Sheets Prime Contractor / Firm: If other than the Encroachment Owner (Print Name and Sign)	Keith Sheets Digitally signed by Keith Sheets DN: cn=Keith Sheets, c=US, o=Jacobs, ou=FES, email=keith.sheets@jacobs.com Date: 2023.10.24 11:15:49 -07'00'	10/24/23 Date
Nicholas Forsythe Traffic Control Company Representative (Print Name and Sign)	Nicholas Fosrythe Digitally signed by Nicholas Forsythe Date: 2023.10.24 16:45:52 -07'00'	10/24/2023 Date

FOR ADOT USE:

PERMIT TO USE STATE HIGHWAY RIGHT-OF-WAY

This application is approved as a permit and a permit is issued to the Permittee. Construction is authorized only for the period indicated below.

Chris Denney
Authorized ADOT Name and Signature

Chris Denney
Authorized ADOT Name and Signature

PERMIT ISSUED(Date): 11/1/2023 PERMIT WORK TO BE COMPLETED BY (Date): 1/30/2024



ENCROACHMENT PERMIT APPLICATION GENERAL OBLIGATIONS AND RESPONSIBILITIES

THE PERMITTEE SHALL:

1. Assume all legal liability and financial responsibility for the encroachment activity for the duration of the encroachment, including indemnify, defend, and save harmless ADOT and the State of Arizona and any of its departments, agencies, boards, commissions, universities, officers, officials, agents and employees from and against any and all claims, demands, suits, actions, proceedings, loss, costs, damages of every kind, or expenses, including court costs, reasonable attorney's fees and/or litigation expenses, and costs of claim processing and investigation, arising out of bodily injury or death of any person, or tangible or intangible property damage, caused, or alleged to be caused, in whole or in part, by the negligent or willful acts, or omissions of the Permittee, any of its directors, officers, agents, employees, or volunteers, or its contractor or subcontractors. This indemnity includes any claim or amount arising out of or recovered under the Workers' Compensation Law or arising out of the contractor's failure to conform to any federal, state or local law, statute, ordinance, rule, regulation or court decree. Permittee and Contractor agree to provide ADOT with certificate(s) of insurance (COI) consistent with the requirements stated in the ADOT Permit Insurance Matrix and to provide the State of Arizona/ADOT with endorsements or evidence to satisfy the Additional Insured, Waiver of Subrogation and Primary/Non-Contributory coverage requirements. The required insurance shall be kept in force by the Permittee and its contractors/subcontractors for the term of the permit and shall not expire, be cancelled or materially changed to affect coverage available to the State without thirty (30) days written notice to the State. Automobile and Worker's Compensation coverage requirements are dependent upon the use of employees and autos for the encroachment activity. Permittee agrees to maintain and make available to ADOT all contractors/subcontractors' certificates upon demand. ADOT reserves the right to require an increase or allow a decrease in insurance limits or coverage based on the risks and financial exposure arising out of the event or activity proposed in the permit application.
2. Comply with Environmental Laws.
 - A. Environmental Laws refer collectively to any and all federal, state, or local statute, law, ordinance, code, rule, regulation, permit, order or decree regulating, relating to, or imposing liability or standards of conduct on a person discharging, releasing or threatening to discharge or release or causing the discharge or release of any hazardous or solid waste or any hazardous substance, pollutant, contaminant, water, wastewater or storm water, and specifically includes, but is not limited to: The Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act; the Comprehensive Environmental Response, Compensation and Liability Act, as amended; the Toxic Substances Control Act; the Clean Water Act (CWA); the Clean Air Act; the Occupational Safety and Health Act; the Arizona Water Quality Act Revolving Fund Act, the Arizona Hazardous Waste Management Act, any applicable National Pollutant Discharge Elimination System (NPDES) or Arizona Pollution Discharge Elimination System (AZPDES) permit, any applicable CWA Section 404 permit, or any local pretreatment or environmental nuisance ordinance.
 - B. The Permittee (and/or their agent) specifically agree that in the course of performing any activity for which this Permit is necessary:
 - i. Shall comply with any and all Environmental Laws;
 - ii. Ensure that no activity under this Permit shall cause ADOT to be in violation of any Environmental Laws;
 - iii. Indemnify ADOT for any losses, damages, expenses, penalties, liabilities or claims of any nature whatsoever suffered by or asserted against ADOT
 - C. If the Permittee fails or refuses to comply with any Environmental Laws, or causes ADOT to be in violation of any Environmental Laws; ADOT may at its sole and unreviewable discretion, (1) revoke this Permit; (2) require the Permittee to undertake corrective or remedial action to address any release or threatened release or discharge of the hazardous substance, pollutant or contaminant, water, wastewater or storm water; and (3) expressly consents to entry of injunctive relief to enforce any listed remedies.
3. Be responsible for any repair or maintenance work and repair any aspect or condition of the encroachment that causes danger or hazard to the traveling public, for the duration of the encroachment and must perform such work under the appropriate encroachment permit authorization.
4. Comply with ADOT's traffic control standards with an ADOT approved traffic control plan.
5. In any case and at the Department's discretion; ADOT may require written approval from the abutting property owner prior to issuance of the encroachment permit. If the encroachment encroaches on abutting property owned by someone other than the permittee (and/or on underlying fee land owned by someone other than the permittee where ADOT owns its right of way by easement), the Permittee must obtain written approval from the abutting property owner (and/or underlying fee owner where ADOT owns its right of way by easement).
6. ADOT reserves the right to require the permittee to perform any repairs necessary to address damages caused by the encroachment throughout the life of the encroachment.
7. Remove the encroachment and restore repair the portions of the right-of-way that were damaged as a result of the encroachment to substantially the same condition as existed prior to the damage if ADOT cancels the encroachment permit, and terminates all rights under the permit, or if the project terminates for any reason beyond ADOT's control.
8. Reimburse ADOT for costs incurred or deposit with ADOT money necessary to cover all costs incurred for activities related to the encroachment, such as inspections, restoring and/or repairing portions of the right-of-way damaged by the encroachment to substantially the same condition as existed prior to the damage, removing the encroachment, or repair encroachment to originally permitted condition and comply with ADOT's bond policy as applicable.
9. Notify new owner of property or encroachment to apply for an ADOT encroachment permit, as required by Arizona Administrative Rule R17-3-502(D).
10. Apply for a new encroachment permit if the use of the permitted encroachment or the use of adjoining property changes.
11. Keep a copy of the encroachment permit at the work site or site of encroachment activity.
12. Construct the encroachment according to attached Specifications, Standards and the plans approved by ADOT as part of the final permit; any field changes shall be approved by ADOT prior to implementation.
13. Obtain all required permits from other government agencies or political subdivisions.
14. Remove any defective materials, or materials that fail to pass ADOT's final inspection, and replace with materials ADOT specifies.
15. Have the right to a hearing as prescribed in Arizona Administrative Code, R17-3-509 if the permit application is denied.
16. Understand that once issued, the permit is revocable and subject to modification or abrogation by ADOT at any time, without prejudice.
17. Following the installation or relocation of utilities within ADOT Rights-of-Way, utility companies are required to provide as-built drawings.
18. Certify that the Permittee shall secure overlash approval on existing poles from the utility company pole owner. Initial David Diaz Digitally signed by David Diaz
DN: cn=David Diaz, o=ADOT (If applicable)
19. Certify that the Permittee shall secure approval from the existing utility owner to enter the existing sleeve, conduit, inner duct, cabinets, handholes or manholes to install additional infrastructure as noted on Page 1. Initial David Diaz Digitally signed by David Diaz
DN: cn=David Diaz, o=ADOT (If applicable)
20. Where ADOT holds an easement interest, certify the Permittee has written approval from any underlying fee owner to include government agencies, political subdivisions, and private property owners. I certify I have written approval as necessary or have verified no approvals are required or needed. Initial David Diaz Digitally signed by David Diaz
DN: cn=David Diaz, o=ADOT

By accepting an ADOT approved Encroachment permit, the Permittee agrees to the requirements described in the permit, to be responsible for all permit requirements, and to comply with ADOT's requirements as set out in the permit. NO WORK SHALL TAKE PLACE INSIDE THE RIGHT OF WAY WITHOUT AN ADOT APPROVED PERMIT ON SITE.

I have read, understand and shall comply with the requirements as stated above:
Name: David Diaz Date: 10/24/2023 Signature: David Diaz Digitally signed by David Diaz Date: 2023.10.24 12:26:49 -07'00'

TRAFFIC CONTROL

GENERAL REQUIREMENTS

This permit allows the permittee to install traffic control in ADOT right-of-way per the attached plans. All work shall be performed per current ADOT Standard Specifications and attached Project Plans. **A Work Notification form must be filled out and submitted to the area permits office by email along with the proposed traffic control plan at least 5 working days prior to beginning work.**

The required Quality Control is the sole responsibility of the permittee.

GENERAL REQUIREMENTS

GR-1 By accepting this permit package, Permittee agrees to all of the requirements described herein. If the Permittee disagrees with any of the requirements described herein, Permittee shall immediately return the permit to the District Permit office. No work shall be performed in the ADOT right-of-way without a valid executed permit.

GR-2 The Permittee shall not deviate from this permit or the approved plans without prior approval from the District permits office.

GR-3 **No work shall begin until notification of the proper authorities. Permittee shall notify Northwestpermit@azdot.gov prior to start of work as noted above and upon completion of work. Failure to comply with this requirement may result in suspension of your ADOT permit.**

GR-4 It is the Permittee's responsibility to obey all local ordinances, obtain permits and licenses; pay all charges, fees, taxes, and provide all notification required for the due and lawful prosecution of this work.

GR-5 If subcontractors will be utilized for work performed pursuant to a permit, it is the responsibility of the encroachment owner (permittee) and the prime contractor to verify that each and every contractor working pursuant to their permit maintains valid and collectible insurance consistent with the requirements described in the current ADOT Insurance Matrix found at <https://www.azdot.gov/business/Permits/encroachment-permits>

GR-6 All work shall be conducted during daylight hours unless otherwise authorized by ADOT. No work shall be conducted on weekends or holidays unless approved by ADOT.

GR-7 All work shall be completed in accordance with current ADOT standards, specifications, and approved plans.

TRAFFIC CONTROL

GR-8 A complete copy of this permit with specifications, drawings, approved site plans, and approved temporary traffic control plans shall be available at the work site for review by ADOT personnel during any work activities in the ROW. Failure to comply shall result in immediate work stoppage until proof of an authorized permit is provided.

GR-9 The permittee agrees by acceptance of this permit to properly maintain the encroachment placed in ADOT ROW under this permit. This maintenance responsibility includes the removal of all debris that interferes with the safety of the traveling public. The owner shall be responsible for the maintenance of what has been placed in right-of-way as authorized by this encroachment permit. The maintenance shall be for the life of the encroachment. Once work has been accepted by ADOT for this encroachment, any additional entry into the right-of-way will require a new application and permit to enter.

GR-10 THE PERMITTEE IS RESPONSIBLE FOR COMPLIANCE WITH SECTION 404 OF THE FEDERAL CLEAN WATER ACT. OBTAINING ALL 404 PERMITS AND ANY REQUIRED STATE 401 SECTION CERTIFICATIONS IS THE RESPONSIBILITY OF THE PERMITTEE. **These programs are administered by the Corps of Engineers (COE) and the Arizona Department of Environmental Quality (ADEQ) respectively.** FURTHER, THE PERMITTEE IS RESPONSIBLE FOR OBTAINING AND COMPLIANCE WITH THE NECESSARY ARIZONA POLLUTION DISCHARGE ELIMINATION SYSTEM (AZPDES) PERMIT AND REQUIRED STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND APPROVALS. ***This program is administered by ADEQ.***

GR-11 ON TRIBAL LANDS, THE PERMITTEE IS RESPONSIBLE FOR COMPLIANCE WITH SECTION 404 OF THE FEDERAL CLEAN WATER ACT. OBTAINING ALL 404 PERMITS AND **ANY REQUIRED TRIBAL 401 SECTION CERTIFICATIONS.** These programs are administered by the Corps of Engineers (COE) and the U. S. Environmental Protection Agency (EPA) respectively. FURTHER, THE PERMITTEE IS RESPONSIBLE FOR OBTAINING AND COMPLIANCE WITH THE NECESSARY NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT AND REQUIRED STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND APPROVALS. ***This program is administered on tribal lands by the U.S. EPA.***

GR-12 Traffic shall be protected in accordance with the Manual on Uniform Traffic Control Devices (MUTCD), 2009 Edition, the Arizona Supplement to the MUTCD 2009 Edition, and the current ADOT Traffic Control Design Guidelines. All signs, placement of signs and the necessity of flag persons are the responsibility of the Permittee. All Flaggers shall be certified by ATTSA or the National Safety Council. (Any other certification programs must be approved by the Engineer.) The Arizona Supplement to the MUTCD 2009 Edition and the ADOT Traffic Control Design Guidelines are available on the Internet or from:

TRAFFIC CONTROL

Arizona Department of Transportation
Engineering Records
1655 W. Jackson, Room 112F
Phoenix, Az85007
Phone (602) 712-7498

GR-13 Prior to final inspection by the Permits Inspector, all surplus material shall be removed from the Right-of-Way, and the Right-of-Way shall be left in a neat and natural state. Any existing Arizona Department of Transportation features (i.e. fence, pipes, posts, signs, etc.) damaged during permit work shall be reported to the District Permit Office and repaired by/at the cost of the permittee.

GR-14 The Permittee agrees to comply with ARS 40.360, for Underground and Overhead facilities. The Permittee shall assume full responsibility in attaining clearances from utility companies and will be responsible for damage to any utility line. Permittee shall call BLUE STAKE AT 1-800-STAKE-IT two (2) working days prior to any excavation. This is a STATE LAW. If Blue Stake is not available, the permittee shall be responsible for contacting all utilities directly, two working days prior to any excavation.

GR-15 The use of water for control of dust shall be applied as deemed necessary by the ADOT inspector.

GR-16 If at any time during the performance of work it is determined that it will not be possible to complete the permitted work by the expiration date on the permit; the permittee will submit a written

request for a time extension. The request should contain the permit number; the reason for the delay and the amount of additional time needed, and should be submitted to the District Permit Office, for review and possible approval and processing.

G-17 In case of discrepancy or conflict with documents issued with this Permit, the following are listed in the order in which they govern:

1. Any Permit specific Specifications
2. Project Plans
3. Standard Drawings
4. Standard Specifications

GR-18 In the event that the property is sold the new property owner as per R17-3-502(D) shall apply for an encroachment permit in the new owners name within 30 days of the date of purchase of the abutting real property.

TRAFFIC CONTROL

GR-19 Proper Personal Protective Equipment will be required to work in ADOT right-of-way. Personal Protective Equipment requirements include at a minimum hard hats and ANSI/ISEA 107-2004 Class III rated vest.

GR-20 Equipment and/or materials shall not be stored within ADOT right-of-way without written approval from ADOT.

GR-21 All Right-of-Way markers disturbed, destroyed or removed during the construction of this permit shall be replaced by a R.L.S. per Construction Standard Drawing C-21-10. at the Permittees expense.

GR-22 Fence temporarily removed to facilitate work shall be returned to an equal or better condition upon completion of work. Temporary fencing shall completely enclose the referenced construction activity and shall be secured after normal working hours to prevent unauthorized access.

TRAFFIC CONTROL REQUIREMENTS:

TC-1 The permittee shall submit a complete traffic control plan to the Department of Transportation for approval prior to starting work.

TC-2 All traffic control devices shall be in operation, properly placed and conform to the requirements of the Manual on Uniform Traffic Control Devices (MUTCD), 2009 Edition, the Arizona Supplement to the MUTCD 2009 Edition, and the current ADOT Traffic Control Design Guidelines before any permitted activity is allowed to start. (reference and comply with the traffic control plans, or drawings attached hereto and part of this permit)

TC-3 The Permittee shall provide adequate protection for all vehicular and pedestrian traffic and employees through any portion of the permitted work where work interferes with, obstructs, or creates a hazard to the movement of traffic.

TC-4 The permittee shall schedule activity so those using the roadway may pass through the area safely and with minimal delay.

TC-5 During permitted activity, should an emergency arise the Permittee shall immediately contact ADOT Traffic Operations Center at 1.800.648-2531 and the Department of Public Safety Central Region at 1.602.223.2209 or Northern Region at 1.928.773.3700. The permittee must also notify the District Permits Office that issued the permit.

TRAFFIC CONTROL

TC-6 All work shall be performed per ADOT approved traffic control plan. ADOT reserves the right to modify approved traffic control plan as needed.

TC-7 All traffic control devices shall be legible, clean and free from dirt, mud and roadway grime.

TC-8 When authorized by ADOT, and when the correct traffic control devices are in place, intermittent traffic closures can occur for a maximum of (10) minutes in duration.

TC-9 Closure of a highway without an approved alternate route or detour is not authorized. Approval shall be in writing from ADOT prior to closure. (The Permittee shall contact DPS at Central Region at 1.602.223.2209 or Northern Region at 1.928.773.3700 and ADOT District office a minimum of seventy-two (72) hours prior to the closure, to provide the work plan and schedule DPS support. The Permittee shall provide a traffic control plan to the District Permit office for acceptance, prior to any highway closure. DPS shall be on site and available to stop traffic prior to placement and removal of traffic control signs.

TC-10 Local traffic must be able to access local business driveways, private driveways and local roads.

TC-11 The permittee shall assign someone to monitor signs periodically through the day and make all repairs as necessary to ensure serviceability.

TC-12 All traffic control signs shall have two 16 inch by 16 inch orange flags attached.

TC-13 Standard for daytime and night time activities, flaggers shall wear high visibility safety apparel that meets the performance Class 2 and 3 requirements of the ANSI 107-2004 publication entitled "American National

Standard for High Visibility Apparel and headwear" (see Section 1A.11) and labeled AS MEETING THE ANSI 107-2004 standard performance for class 2 and 3 risk exposure. The apparel background (outer) material color shall be fluorescent orange-red, fluorescent yellow-green, or a

combination of the two as defined in the ANSI standard. The retro-reflectivity material shall be orange, yellow, white, silver, yellow-green, or a fluorescent version of these colors, and shall be visible at a minimum distance of 1000 feet. The retro-reflectivity safety apparel shall be design to clearly identify the wearer as a person.

T-14 Guidance: For nighttime activity, high visibility safety apparel that meets the performance class 3 requirements of the ANSI / ISEA 107-2004 publication entitled "American National Standard for high visibility apparel and headwear" (see section 1A.110 and labeled as meeting the ANSI 107-2004 standard performance for class e risk exposure should be considered for flagger wear.

TRAFFIC CONTROL

TC-15 Any individual who is stationed on a State Highway to provide temporary traffic control shall have completed training and be certified by a program that meets the training and certification standards of the National Safety Council highway flagger training program, The American Traffic Safety Services Association flagger program or an equivalent program that meets the same objective.

TC-16 At the closure of each day's work activity; signs and stands shall be stored in an area where those using the road or the right-of-way will not come in contact with the signs. Urban area signs and sign stands shall be stored in an area where signs cannot be tampered with. Rural area signs and stands shall be placed thirty (30) feet from the shoulder of the roadway. Signs shall be placed face down.

The Standard Specifications for Road and Bridge Construction can be found at:
<https://www.azdot.gov/business/engineering-and-construction/construction-and-materials>

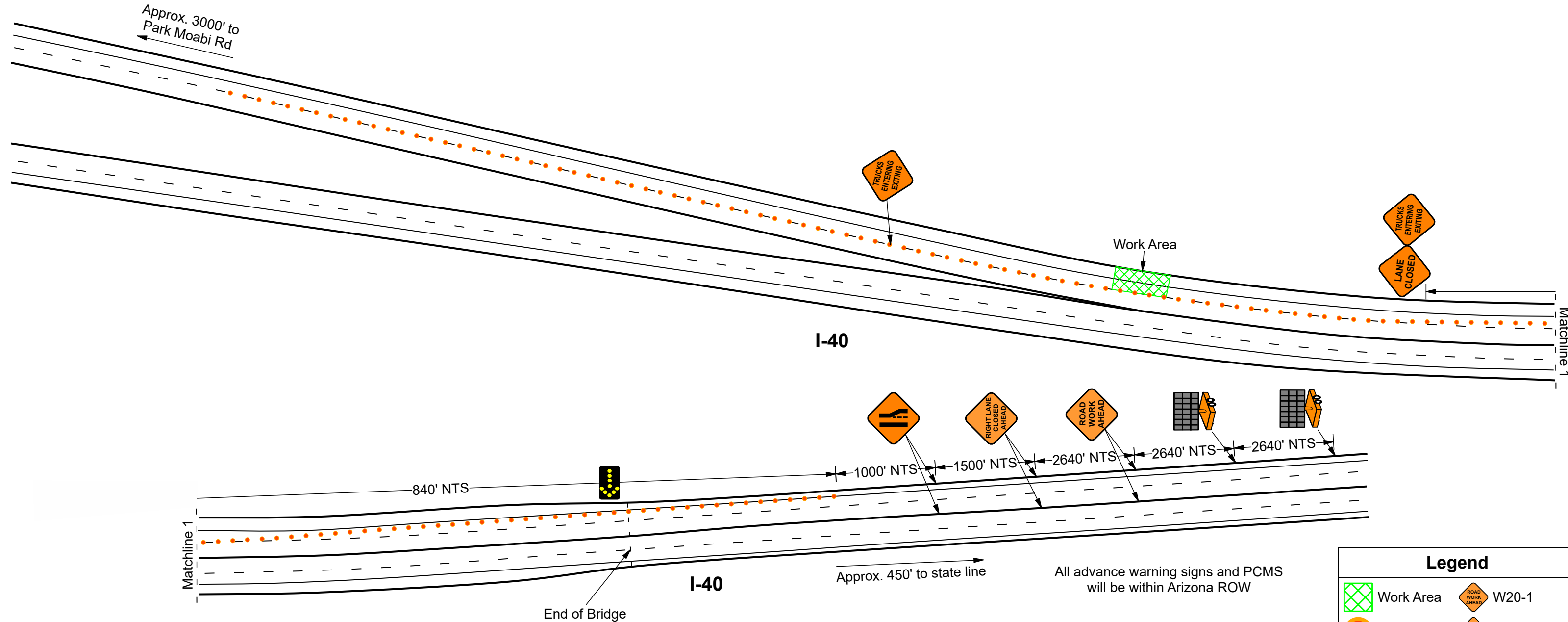
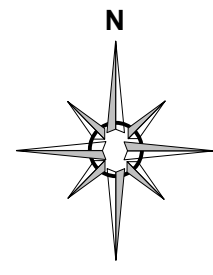
The Construction Standard Drawings can be found at:
<https://azdot.gov/node/5376>

The ADOT Signing and Marking Guide can be found at:
<http://azdot.gov/business/engineering-and-construction/traffic/signing-and-marking-standard-drawings>

The ADOT Bridge Standards and Details can be found at:
<http://azdot.gov/business/engineering-and-construction/bridge/structure-detail-drawings>

The ADOT Drainage Standards can be found at:
<http://azdot.gov/business/engineering-and-construction/roadway-engineering/drainage-design/manuals>

The ADOT Guidelines for Accommodating Utilities on Highway Rights-of-Way can be found at:
<https://www.azdot.gov/business/engineering-and-construction/utility-and-railroad-engineering>



Legend	
	Work Area
	Cones
	Arrow Board
	CMS
	C44
	W20-1
	C20R(ca)
	W4-2R
	C30



Contractor: Jacobs
Field Contact: -
Contact Number: -

Start Date: -
End Date: -
Work Hours: -

Drafted by: SG
Scale: None
Plan Number: _____
Job Number: _____
Permit #: _____

Phase: 1
Page: 1

Civil Engineer Stamp

Gilbert M. Hernandez
 GILBERT M. HERNANDEZ
 R.C.E. No. 69170 EXPIRES: 6-30-24
 DATE: October 19, 2023

Acknowledgement of Approval
 Signature: _____
 Date: _____



Insurance Department
77 Beale Street
San Francisco, CA 94105

THIS STATEMENT OF SELF-INSURANCE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE STATEMENT OF SELF-INSURANCE HOLDER. THIS STATEMENT DOES NOT CONSTITUTE A CONTRACT BETWEEN PACIFIC GAS & ELECTRIC COMPANY AND THE STATEMENT HOLDER.

STATEMENT OF SELF-INSURANCE PROGRAM

Statement Holder: The State of Arizona
Arizona Department of Transportation (ADOT)
1324 N. 22nd Ave MD 128A
Phoenix, AZ 85009

October 25, 2023

Re: Insurance requirements for Pacific Gas and Electric Company (PG&E) for all work performed in Arizona Department of Transportation (ADOT) right-of-way at/near westbound I-40 near the Moabi Road exit, LAT/LONG 34.43271, -114.293853.

This letter certifies PG&E is insured under a major risk management program with large self-insured retentions that meet the requirements below. The program provides coverage for the insurance types and limits reflected in the contractual agreement with the State of Arizona and Arizona Department of Transportation (ADOT), which includes:

Commercial General Liability: \$1,000,000 each occurrence / \$2,000,000 aggregate
Employer's Liability: \$1,000,000 each accident
Business Auto Liability: \$1,000,000 each accident

Further, PG&E has qualified as a self-insurer under the laws of the State of California with respect to Workers' Compensation. Our identification number for this purpose is 2-0012-01-099.

***Please note a Certificate of Insurance (COI) is not applicable when an entity such as PG&E is self-insured.**

Brian Pelham
Director, Insurance Department



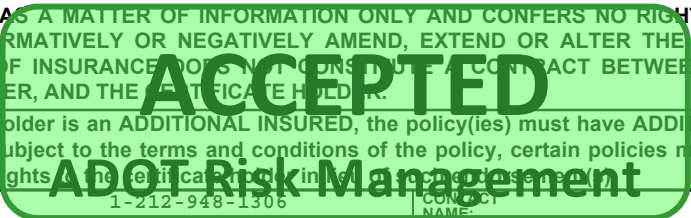


CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
06/15/2023

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PRODUCER LIC #0437153 Marsh Risk & Insurance Services CIRTS_Support@jacobs.com 633 W. Fifth Street Los Angeles, CA 90071	PHONE (A/C, No. Ext): E-MAIL ADDRESS: INSURER(S) AFFORDING COVERAGE INSURER A: ACE AMER INS CO INSURER B: INSURER C: INSURER D: INSURER E: INSURER F:	FAX (A/C, No): 1-212-948-1306 NAIC # 22667
INSURED Jacobs Engineering Group Inc. C/O Global Risk Management 555 South Flower Street, Suite 3200 Los Angeles, CA 90071		

COVERAGES

CERTIFICATE NUMBER: 69013133

REVISION NUMBER:

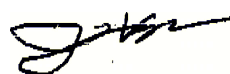
THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> CONTRACTUAL LIABILITY GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:			HDO G47339273	07/01/23	07/01/24	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 500,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 1,000,000 \$
A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY			ISA H10736262	07/01/23	07/01/24	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
	<input type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$						EACH OCCURRENCE \$ AGGREGATE \$ \$
A	<input checked="" type="checkbox"/> WORKERS COMPENSATION AND EMPLOYERS' LIABILITY <input type="checkbox"/> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A	WLR C50711481 (AOS)	07/01/23	07/01/24	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
A				WCU C50711559 (OH) *	07/01/23	07/01/24	
A				SCF C5071164A (WI)	07/01/23	07/01/24	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

OFFICE LOCATION: Fort Worth, TX 76102. PROJECT MGR: Glenda Luhnnow. CONTRACT MGR: Sage Schoenfeld. RE: 9326-Rte. District, MP:0.00, Class III Cultural Resource Surveys. State of Arizona, it's departments, agencies, boards, commissions, universities officers, officials, agents and employees are added as an additional insured for general liability & auto liability as respects the negligence of the insured in the performance of insured's services to cert holder under contract for captioned work. Waiver of subrogation is hereby granted in favor of State of Arizona, and it's departments, agencies, boards, commissions, universities officers, officials, agents and employees for GL, AL and WC. Coverage is primary and certificate holder's insurance is excess and non-contributory. *THE TERMS, CONDITIONS, AND

CERTIFICATE HOLDER**CANCELLATION**

State of Arizona Department of Transportation (ADOT) 1324 North 22nd Avenue Phoenix, AZ 85009 USA	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE 
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ACORD 25 (2016/03)
Cert Renewal
69013133

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CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

10/25/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Cal-Valley Insurance Services, Inc. 5070 N. Sixth St. #155 License #0733383 Fresno CA 93710		CONTACT NAME: Mariel Matousek PHONE (A/C, No, Ext): (559) 225-1300 E-MAIL ADDRESS: MarielM@calvalleyinsurance.com		FAX (A/C, No): (559) 225-8966	
INSURED Safety Network, Inc., Safety Network Traffic Signs, Inc., Safety Network Traffic Control Services, Inc. 1345 N. Rabe Ave. Fresno CA 93727		INSURER(S) AFFORDING COVERAGE		NAIC #	
		INSURER A: Everest Indemnity Insurance Company		10851	
		INSURER B: Everest Denali Insurance Company		16044	
		INSURER C: Endurance American Specialty Ins Co		41718	
		INSURER D: State Compensation Insurance Fund		35076	
		INSURER E: Underwriters at Lloyd's London		000565	
		INSURER F:			

COVERAGES**CERTIFICATE NUMBER:** 23/24 GL AL XS WC**REVISION NUMBER:**


THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY CLAIMS-MADE <input type="checkbox"/> OCCUR <input checked="" type="checkbox"/>	Y	Y	CF1GL00290-231	06/06/2023	06/06/2024	EACH OCCURRENCE	\$ 1,000,000
	DAMAGE TO RENTED PREMISES (Ea occurrence)						\$ 100,000	
	GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:						MED EXP (Any one person)	\$ 10,000
							PERSONAL & ADV INJURY	\$ 1,000,000
							GENERAL AGGREGATE	\$ 2,000,000
							PRODUCTS - COMP/OP AGG	\$ 2,000,000
								\$
B	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS NON-OWNED AUTOS ONLY	Y	Y	CF1CA00401-231	06/06/2023	06/06/2024	COMBINED SINGLE LIMIT (Ea accident)	\$ 1,000,000
	BODILY INJURY (Per person)						\$	
	BODILY INJURY (Per accident)						\$	
	PROPERTY DAMAGE (Per accident)						\$	
							\$	
C	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> EXCESS LIAB			EXC30000041107	06/06/2023	06/06/2024	EACH OCCURRENCE	\$ 5,000,000
	CLAIMS-MADE <input type="checkbox"/>						AGGREGATE	\$ 5,000,000
	DED <input type="checkbox"/> RETENTION \$ <input type="checkbox"/>							\$
D	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N/A	Y	933604323	04/01/2023	04/01/2024	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER	
	E.L. EACH ACCIDENT						\$ 1,000,000	
	E.L. DISEASE - EA EMPLOYEE						\$ 1,000,000	
							E.L. DISEASE - POLICY LIMIT	\$ 1,000,000
E	Professional Liability			ANE1742233.23	07/01/2023	07/01/2024	Each Claim	1,000,000
							Aggregate Limit	1,000,000
							Retention	5,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Procurement Agreement Number: 614-148049566
 Project Name: ARC Topock NTCRA Phase II Asbe
 State of Arizona, ADOT and its departments, agencies, boards, commissions, universities, officers, officials, agents and employees are named as additional insured with respects to General Liability per attached endorsement form CG2010, CG2037, Waiver of Subrogation per attached endorsement form CG2404, Primary Non-Contributory applies per attached endorsement form CG2001, Auto Liability per attached endorsement form ECA045210414, Waiver of Subrogation per attached form ECA245030214, Workers Compensation Waiver of Subrogation per attached endorsement form 2572.

CERTIFICATE HOLDER**CANCELLATION**

The State of Arizona Arizona Department of Transportation Arizona Department of Public Safety 1324 N. 22nd Ave MD 128A Phoenix AZ 85009	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE 

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From: Glass, John <F2G5@pge.com>
Sent: Thursday, September 14, 2023 7:01 PM
To: Dickerson, Veronica L; Smith, Jeffery B; Ketcham, Shari L
Cc: Bonnett, Kristina; Sheets, Keith; Hong, Christina
Subject: [EXTERNAL] PG&E Topock NTCRA - Request to handle NTRCA materials within the Upper SPY
Attachments: Topock_NTCRA_Workplan_Errata_Letter_19Aug2022 (1).pdf

Classification: Public

Veronica and Jeff,

PG&E is requesting to use the Upper SPY to store and handle NTCRA retained materials. This will help accommodate NTRCA to continue to work while the BOR is completing their own soil removal action within the Lower SPY. When the Upper SPY was constructed PG&E decided to separate Phase 2a material and NTRCA material. Phase 2a work is currently on a pause and the NTRCA project is proposing to use the unused areas of the Upper SPY. We are not requesting any additional work area or expansion of the SPY, a map of the SPY is provided below, the Upper SPY is within the blue highlighted area.

Baseline samples have been collected and PG&E will follow Post-NTCRA Sampling for any areas we use. The process is described on the bottom of the email. All materials brought to the Upper SPY will be within the fence line where a berm surrounding it was constructed to accommodate all types of material.

NTCRA material handling will follow the NTCRA Work Plan Errata (attached) for stockpile management.

>> **Post-NTCRA Sampling:** As directed by DOI on 10/25/22, PG&E will conduct confirmation soil sampling to determine if the soils in the SPY have been impacted by soil NTCRA activities. Impacts will be determined by comparing the confirmation soil sample results to the baseline soil data collected prior to PG&E's use of the SPY for soil management. Any impacted soil will be removed, and confirmation samples will be collected to verify that impacted soil has been removed. This will be documented in the NTCRA Completion Report.



Please let me know if you have any questions.

Regards,

John Glass
 Pacific Gas and Electric Co

Program Manager

C: 628-219-4369

You can read about PG&E's data privacy practices [here](#) or at [PGE.com/privacy](https://www.pge.com/privacy).



Iain Baker
Manager, Environmental Remediation

77 Beale Street, B28P
San Francisco, CA 94105
(415) 314-8530
ixBj@pge.com

August 19, 2022

Veronica Dickerson
Department of the Interior
4316 Nichols Road
Medina, Ohio 44256

Subject: Errata – Soil Non-Time Critical Removal Action Work Plan, Pacific Gas and Electric Company Topock Compressor Station, Needles, California.

Dear Ms. Dickerson:

This submittal provides notice of the need to make a minor revision to Appendix D of the Final Soil Non-Time Critical Action (NTCRA) Work Plan, dated June 2022. It was brought to PG&E's attention on Thursday, August 11, 2022 by the Tribal monitors that Appendix D contained language that conflicted with previously agreed upon decisions (items are outlined below). To ensure consistency with discussions during the Response to Comment (RTC) meetings on April 26, 2022 and May 5, 2022, Consultative Work Group (CWG) meeting June 22, 2022 as well as the onsite project initiation meeting on July 14, 2022. The revision will correct the Appendix D text to remove the requirements for nonhazardous soil stockpiles to be placed on a liner.

Appendix D Section 2.3.3 – Stockpile Management (The language is provided below as it currently reads in Appendix D):

Nonhazardous Soil above Soil Management Screening Levels

Soil above approved soil management screening levels can be stockpiled if placed on liner or placed in roll-off bins or similar containers. The following BMPs will be followed:

- *Stockpiles will be constructed with liners and perimeter berms to prevent release or infiltration of liquids.*
- *The perimeter berm will be constructed of clean materials (such as straw wattle under the liner).*
- *If a cover is employed, it will extend over the outer edges of the perimeter berm and liner so that rainfall is prevented from entering the bermed area.*

Appendix D Section 2.3.3 – Stockpile Management (The revised language to be in line with the RTC is provided below):

Nonhazardous Soil above Soil Management Screening Levels

Soil above approved soil management screening levels can be stockpiled ~~if placed on liner~~ or placed in roll-off bins or similar containers. The following BMPs will be followed:

- *Stockpiles will be constructed with ~~liners and~~ perimeter berms to prevent release or runoff of liquids.*
- *The perimeter berm will be constructed of clean materials (such as straw wattle ~~under the liner~~).*
- *If a cover is employed, it will extend over the outer edges of the perimeter berm ~~and liner~~ so that rainfall is prevented from entering the bermed area.*

Ms. Dickerson
August 19, 2022

Justification:

During Response to Comment meetings for the Soil NTCRA Work Plan held on April 26, 2022 and May 5, 2022, CWG June 22, 2022 as well as the onsite Project Initiation meeting held on July 14, 2022, discussions between PG&E, Agencies, and Stakeholders were held regarding the management of soil and stockpiles within the Soil Processing Yard (SPY). During those meetings, the use of liners beneath stockpiles of contaminated soil above approved soil management screening levels during the Soil NTCRA was discussed. Based on previous experience of stockpile management within the SPY, and due to the nature of the NTCRA soil screening process, it was determined that plastic liners would not be appropriate to use beneath the stockpiles to avoid waste plastic in the backfill. Instead, post-stockpile confirmation sampling will be conducted to confirm the soils beneath the stockpiles have not been impacted by Soil NTCRA activities (Section 2.3.3.1 in NTCRA Work Plan). Confirmation soil sampling results will be reported to DOI and included in the completion report.

Please call me at (415) 314-8530 if you have any questions regarding this report.

Sincerely,

John Glass,

A handwritten signature in blue ink that reads "John Glass". The signature is written in a cursive, flowing style.

On behalf of Iain Baker

Attachment – Relevant RTCs from April 26, 2022 and May 5, 2022 RTC Meetings

PG&E Topock Compressor Station – Responses to Comments on the Soil Non-Time-Critical Removal Action Work Plan

PG&E Topock Compressor Station, Needles, California

Comment No.	Agency/ Stakeholder	Unique Comment ID (if applicable) ²	Section/ Page	Reference Text	Soil Non-Time-Critical Removal Action Work Plan Comment (Please provide sufficient detail, include specifically what you are looking for)	PG&E Response	DTSC Response	DOI Response	Tribes Response	Final Resolution
151	DTSC-24	24	Page 2-9, Section 2.3.2	However, no bottom liner will be required if the stockpile is located within the extent of the TAA.	No bottom liner is fine as long as a stockpile is placed on top of a “dirty” TAA material/soil area that will be excavated and removed later. Otherwise, bottom liners are requested to help guide work crews with removing all of the potentially or confirmed contaminated pile while minimizing removal of cleaner soil. Revision is requested to clarify this issue. Please ensure that similar changes are made to the BMP Plan (Appendix D).	The text in Section 2.3.2 and Appendix D have been revised to indicate temporary staging of materials in a TAA will occur on potentially contaminated material slated to be excavated.				Text revised, comment resolved pending review of BMPs for AOC 14.
153	DTSC-26	26	Page 2-9, Section 2.3.3	N.A.	The section should clarify how and when contaminated stockpiles will be covered to prevent dispersion due to high winds or rain. Contaminated materials (e.g., excavated soil and debris and fine materials) should be placed in covered bins or on lined plastic sheeting and then covered until transported. In general, contaminated soil and materials should be placed on tarps to assist in removing the soil later. Confirmation soil sampling would be conducted after the stockpile and liner have been removed.	Section 2.3.3 provides an overview of stockpile construction and management. The requested details are provided in the BMP Plan (Appendix D).				See Response to Comment #151
154	DTSC-27	27	Page 2-9, Section 2.3.3, 1 st bullet	Temporary staging of excavated soil and debris may also be required at individual TAAs prior to transport to the SPY.	Depending how the temporary staging is conducted, confirmation soil samples may need to be taken to ensure all significant contamination associated with the temporary pile has been appropriately removed from the area. Please revise the plan to address this issue.	Temporary staging will occur on “dirty” and “to-be” excavated material. Therefore, liners and confirmation soil sampling will not be warranted. See response to Comment #151				See Response to Comment #151
161	DTSC-34	34	Page 2-11, Section 2.3.7	N.A.	After all contaminated soils have been removed offsite, a confirmation sampling program should be implemented to ensure contaminated media were properly handled and appropriately removed. The work plan should include the process for tracking the areas where contaminated soils were placed, managed, or processed so that they can be promptly surveyed and identified for confirmatory soil sampling after contamination is taken offsite. Baseline soil sampling might be prudent.	Post-construction confirmation samples will be collected from all areas where contaminated media was handled or stored. Placement, management, and processing of contaminated soil will only occur within the SPY. Tracking of soil will follow the same process used for the groundwater remedy. Baseline samples have already been collected from the SPY. See new Section 2.3.3.1				Text revised, comment resolved.

Notes:

¹ Cocopah = Cocopah Indian Tribe; DOI = U.S. Department of the Interior; DTSC = California Department of Toxic Substances Control; FMIT = Fort Mojave Indian Tribe; MWD = Metropolitan Water District; Quechan = Quechan Indian Tribe

² Comment ID as it appeared in the commenter's original comment letter (where applicable).

N.A. = not applicable

Subject: Re: [EXTERNAL] RE: PG&E Topock NTCRA - Request to handle NTRCA materials within the Upper SPY
Sent: 9/18/2023, 12:28:18 PM
From: Smith, Jeffery B<JefferySmith@usbr.gov>
To: Glass, John; Dickerson, Veronica L; Ketcham, Shari L
Cc: Bonnett, Kristina; Sheets, Keith; Hong, Christina

Good Morning,

I do not have an issue with storing the NTRCA soil in the upper yard. Tomorrow the Contract, myself and PG&E will have the kickoff meeting and determine where in the upper yard we might be storing the stained soil.

Jeffery Smith E.P.

Regional Hazmat / Integrated Pest Management Coordinator
Bureau of Reclamation
Lower Colorado Basin Region 8
M.S. LC-2640
P.O. Box 61470
Boulder City, NV 89006
Office Phone: 702-293-8060
Cell Phone: 702-467-5821
E-mail: JefferySmith@usbr.gov



— BUREAU OF —
RECLAMATION

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From: Glass, John <F2G5@pge.com>
Sent: Monday, September 18, 2023 11:14 AM
To: Dickerson, Veronica L <veronica_dickerson@ios.doi.gov>; Smith, Jeffery B <JefferySmith@usbr.gov>; Ketcham, Shari L <sketcham@blm.gov>
Cc: Bonnett, Kristina <KABY@pge.com>; Sheets, Keith/PDX <Keith.Sheets@jacobs.com>; Hong, Christina/LAC <Christina.Hong@jacobs.com>
Subject: [EXTERNAL] RE: PG&E Topock NTCRA - Request to handle NTRCA materials within the Upper SPY

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Classification: Public

Hello Jeff and Veronica,

Per the schedule that has been communicated to PG&E the start date for the BOR removal effort in the SPY is tomorrow and reducing the sizing operational area of the SPY for approximately two weeks.

Please advise on the request to store and handle NTCRA related in the Upper SPY. The NTCRA material will remain separate/segregated from the BOR excavated material that is planned to be staged in the Upper SPY.

Regards,

John Glass

Pacific Gas and Electric Co
Program Manager

C: 628-219-4369

From: Glass, John

Sent: Thursday, September 14, 2023 6:01 PM

To: veronica_dickerson@ios.doi.gov; JefferySmith@usbr.gov; Ketcham, Shari L <sketcham@blm.gov>

Cc: Bonnett, Kristina <KABY@pge.com>; Sheets, Keith/PDX <Keith.Sheets@jacobs.com>; Hong, Christina/LAC <Christina.Hong@jacobs.com>

Subject: PG&E Topock NTCRA - Request to handle NTRCA materials within the Upper SPY

Classification: Public

Veronica and Jeff,

PG&E is requesting to use the Upper SPY to store and handle NTCRA retained materials. This will help accommodate NTRCA to continue to work while the BOR is completing their own soil removal action within the Lower SPY. When the Upper SPY was constructed PG&E decided to separate Phase 2a material and NTRCA material. Phase 2a work is currently on a pause and the NTCRA project is proposing to use the unused areas of the Upper SPY. We are not requesting any additional work area or expansion of the SPY, a map of the SPY is provided below, the Upper SPY is within the blue highlighted area.

Baseline samples have been collected and PG&E will follow Post-NTCRA Sampling for any areas we use. The process is described on the bottom of the email. All materials brought to the Upper SPY will be within the fence line where a berm surrounding it was constructed to accommodate all types of material.

NTCRA material handling will follow the NTCRA Work Plan Errata (attached) for stockpile management.

>> **Post-NTCRA Sampling:** As directed by DOI on 10/25/22, PG&E will conduct confirmation soil sampling to determine if the soils in the SPY have been impacted by soil NTCRA activities. Impacts will be determined by comparing the confirmation soil sample results to the baseline soil data collected prior to PG&E's use of the SPY for soil management. Any impacted soil will be removed, and confirmation samples will be collected to verify that impacted soil has been removed. This will be documented in the NTCRA Completion Report.



Pile Color Legend:	Accumulation	Not to be used for MTCB use	Approved for use (MTCB use)	No action	Import	Not to be used for MTCB use	Not to be used (MTCB use)	Approved by MTCB	Not to be used (MTCB use)
	Red	White	Yellow	White	Green	White	White with X	Blue	White

Please let me know if you have any questions.

Regards,

John Glass
 Pacific Gas and Electric Co
 Program Manager

C: 628-219-4369

You can read about PG&E's data privacy practices [here](#) or at PGE.com/privacy.

From: [Dickerson, Veronica L](#)
To: [Smith, Jeffery B](#); [Glass, John](#); [Ketcham, Shari L](#)
Cc: [Bonnett, Kristina](#); [Sheets, Keith](#); [Hong, Christina](#)
Subject: Re: [EXTERNAL] RE: PG&E Topock NTCRA - Request to handle NTRCA materials within the Upper SPY
Date: Monday, September 18, 2023 12:42:34 PM
Attachments: [image001.png](#)
[Outlook-ixg0bwu.png](#)

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Please note my email is in reference to BOR project. NTCRA will follow ERRATA.

Get [Outlook for iOS](#)

From: Smith, Jeffery B <JefferySmith@usbr.gov>
Sent: Monday, September 18, 2023 12:28:18 PM
To: Glass, John <F2G5@pge.com>; Dickerson, Veronica L <veronica_dickerson@ios.doi.gov>; Ketcham, Shari L <sketcham@blm.gov>
Cc: Bonnett, Kristina <KABY@pge.com>; Sheets, Keith/PDX <Keith.Sheets@jacobs.com>; Hong, Christina/LAC <Christina.Hong@jacobs.com>
Subject: Re: [EXTERNAL] RE: PG&E Topock NTCRA - Request to handle NTRCA materials within the Upper SPY

Good Morning,

I do not have an issue with storing the NTRCA soil in the upper yard. Tomorrow the Contract, myself and PG&E will have the kickoff meeting and determine where in the upper yard we might be storing the stained soil.

Jeffery Smith E.P.

Regional Hazmat / Integrated Pest Management Coordinator
Bureau of Reclamation
Lower Colorado Basin Region 8
M.S. LC-2640
P.O. Box 61470
Boulder City, NV 89006
Office Phone: 702-293-8060
Cell Phone: 702-467-5821
E-mail: JefferySmith@usbr.gov



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From: Glass, John <F2G5@pge.com>
Sent: Monday, September 18, 2023 11:14 AM
To: Dickerson, Veronica L <veronica_dickerson@ios.doi.gov>; Smith, Jeffery B <JefferySmith@usbr.gov>; Ketcham, Shari L <sketcham@blm.gov>
Cc: Bonnett, Kristina <KABY@pge.com>; Sheets, Keith/PDX <Keith.Sheets@jacobs.com>; Hong, Christina/LAC <Christina.Hong@jacobs.com>
Subject: [EXTERNAL] RE: PG&E Topock NTCRA - Request to handle NTRCA materials within the Upper SPY

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Classification: Public

Hello Jeff and Veronica,

Per the schedule that has been communicated to PG&E the start date for the BOR removal effort in the SPY is tomorrow and reducing the sizing operational area of the SPY for approximately two weeks.

Please advise on the request to store and handle NTCRA related in the Upper SPY. The NTCRA material will remain separate/segregated from the BOR excavated material that is planned to be staged in the Upper SPY.

Regards,

John Glass
Pacific Gas and Electric Co
Program Manager

C: 628-219-4369

From: Glass, John

Sent: Thursday, September 14, 2023 6:01 PM

To: veronica_dickerson@ios.doi.gov; JefferySmith@usbr.gov; Ketcham, Shari L <sketcham@blm.gov>

Cc: Bonnett, Kristina <KABY@pge.com>; Sheets, Keith/PDX <Keith.Sheets@jacobs.com>; Hong, Christina/LAC <Christina.Hong@jacobs.com>

Subject: PG&E Topock NTCRA - Request to handle NTCRA materials within the Upper SPY

Classification: Public

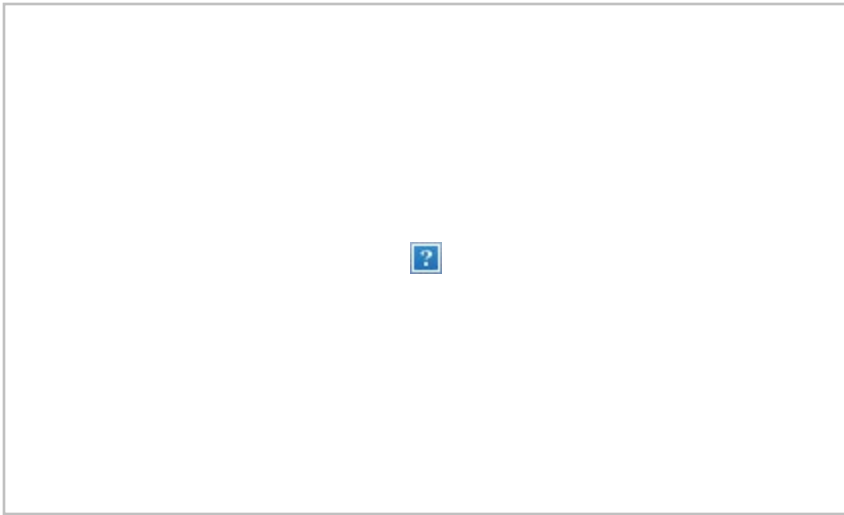
Veronica and Jeff,

PG&E is requesting to use the Upper SPY to store and handle NTCRA retained materials. This will help accommodate NTCRA to continue to work while the BOR is completing their own soil removal action within the Lower SPY. When the Upper SPY was constructed PG&E decided to separate Phase 2a material and NTCRA material. Phase 2a work is currently on a pause and the NTCRA project is proposing to use the unused areas of the Upper SPY. We are not requesting any additional work area or expansion of the SPY, a map of the SPY is provided below, the Upper SPY is within the blue highlighted area.

Baseline samples have been collected and PG&E will follow Post-NTCRA Sampling for any areas we use. The process is described on the bottom of the email. All materials brought to the Upper SPY will be within the fence line where a berm surrounding it was constructed to accommodate all types of material.

NTCRA material handling will follow the NTCRA Work Plan Errata (attached) for stockpile management.

>> **Post-NTCRA Sampling:** As directed by DOI on 10/25/22, PG&E will conduct confirmation soil sampling to determine if the soils in the SPY have been impacted by soil NTCRA activities. Impacts will be determined by comparing the confirmation soil sample results to the baseline soil data collected prior to PG&E's use of the SPY for soil management. Any impacted soil will be removed, and confirmation samples will be collected to verify that impacted soil has been removed. This will be documented in the NTCRA Completion Report.



Please let me know if you have any questions.

Regards,

John Glass

Pacific Gas and Electric Co
Program Manager

C: 628-219-4369

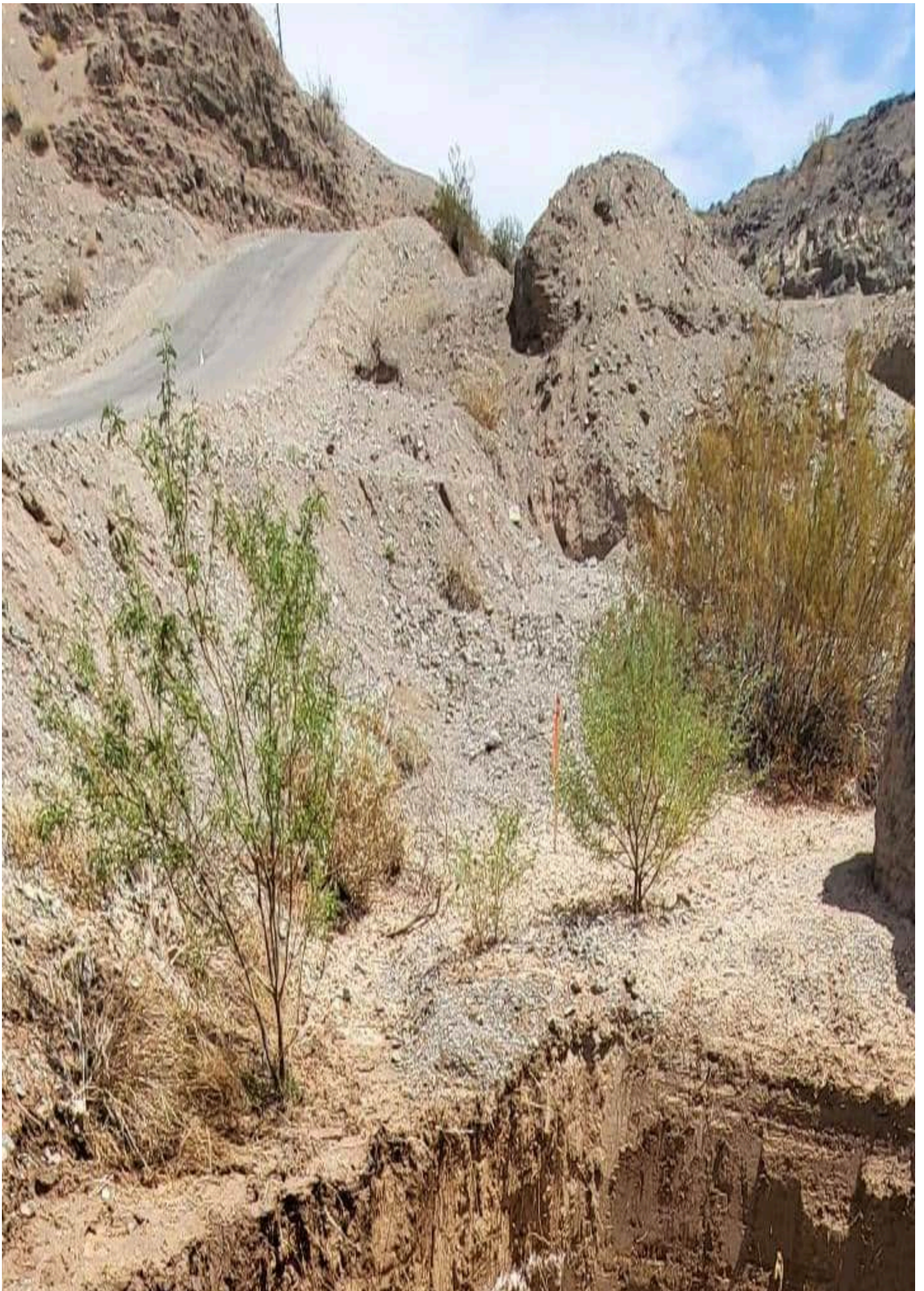
You can read about PG&E's data privacy practices [here](#) or at [PGE.com/privacy](https://www.pge.com/privacy).

From: Hong, Christina
Sent: Saturday, August 20, 2022 12:36 PM
To: Aaron Yue; Amelia Flores, CRIT; Augustine (August) Potor, BLM; Baker, Karen@DTSC; Beahta Davis, Regional Parks; Betty Kuo Brinton, MWD; Bryan Etsitty, CRIT; Cortez, Jose@Waterboards; CourtCoyle@aol.com; Bush, Dan; Danielle Starring, PG&E; Diaz, David; Vigil, David@Wildlife; dbonamici@critdoj.com; Doug Bonamici 2, CRITs; Edgardo Castillo; Edwin Sparks, USFWS; Eric Putnam, ARCADIS; Eric Fordham; Funk, Alexander@Wildlife; yolanda.garza; Glenn Lodge, Chemehuevi; Gloria Benson, BLM; Guerre, Christopher@DTSC; Hare, Lori@DTSC; Iain Baker, PG&E; Jim Colmer; Janet Newman, Arcadis; Smith, Jeffery B; Darcangelo, Jennifer; Jessica Neuwerth, CRB; Jill C. Teraoka, MWD; historicpreservation; John Krause, BIA; Kelly, Colin@DTSC; Bonnett, Kristina; Lisa Kellogg; Lisa.MichelettiCope@arcadis-us.com; Lleonhart@hargis.com; Marcos, Jose@DTSC; Margy Gentile, Aracis; Martina Dawley, Hualapai; mbloes@pivox.com; Matt Dudley, PG&E; Santos, Mauricio J; Michael Long, H+A for FMIT; Middleton, Greg@Waterboards; Mike Boyles, USBOR; Cavaliere, Mike; Mike Meek, Mohave County DPH; Morgan O'Connor, ADEQ; Lopez, Maria T; Nathalie Doherty, USDO; Nichole Osuch, ADEQ; Nora McDowell, FMIT; Owens, Zakary@Waterboards; Innis, Pamela S; Paul Rochelle, MWD; PGFile@DTSC; Rasmussen, Paula@Waterboards; RG Keith Sheets (keith.sheets@ch2m.com); Rich Juricich, CRB; Richard Meyers, USFWS; Richard Orens, Arcadis; Robert Cheng, Coachella Valley Water District; Ron Escobar, Chemehuevi; Ronald Balsamo, Mohave Co; Roy-Semmen, Shukla@DTSC; smcdonald@spmcdonaldlaw.com; Curtis, Stephanie; Steven Escobar, Chemehuevi; Perry, Steven; Stormo, Scot@Waterboards; Anthony Rossi; Trinidad, Criss@DTSC; Valentine, Alexander@Waterboards; Dickerson, Veronica L; vincent.garcia@ihs.gov; Strohl, Virginia; William Mack, BLM; Aaron Yue; Adrienne LaPierre; Brian Schroth, Jacobs; Dawn Duncan-Hubbs, Consultant for FMIT; Frank Lenzo, Arcadis; Greg Foote, Arcadis; Piper, Jay; Vigil, David@Wildlife; ericrosenblum; meggers; Monica Ruth; PGFile@DTSC; prucha; Walt McNab, Jr.; Anthony Madrigal, Jr., 29 Palms; Antoinette Flora, CRIT; Arlene Kingery, Fort Yuma-Quechan; Blake Watahomigie, Hualapai; calisay17@hotmail.com; Carrie Imus, Hualapai; Chase Choate, Quechan ; cocotcsec@cocopah.com; Johnson "JD" Fisher, CRITs; Jolene Marshall, Hualapai; Justin Brundin, Cocopah; LindaOtero@FortMojave.com; Lyndee Hornell, Hualapai; Manfred Scott, Quechan; Sullivan, Michael J; Rena Van Fleet, CRIT; Richard Powskey, Hualapai; rloubear@critdoj.com; Roland Ferrer, Torres-Martinez; ShanLewis@fortmojave.com; Williams, Timothy@CDSS-Import; Toni Carlyle, CRIT
Cc: Dickerson, Veronica L; Glass, John; Sheets, Keith; Reynolds, Michael; Horan, Bobby
Subject: PG&E Topock Soil NTCRA - Notification of Results of Discolored Materials Encountered at AOC 10 TAA 4 and Next Steps
Attachments: ERTC Soil Fig 1.pdf

Good morning -

During the Soil Non-time Critical Removal Action (NTCRA) excavation at Area of Concern (AOC) 10 Target Action Area 4 (TAA 4), white powder material was observed approximately 2.5 feet below ground surface (bgs). Per the approved work plan, all excavation stopped at the TAA boundary. The depth of excavation extended to approximately 5 feet bgs. Samples were collected and analyzed for metals and dioxins/furans via immunoassay. This email notifies DTSC, Tribes, the TRC, and stakeholders of the sample results and proposed next steps at this AOC. For your reference, attached is the ERTC figure that shows the location of AOC 10 TAA4.

Location of Discolored Materials – A lens of white powder material (about 2-3 inches thick) was observed approximately 2.5 feet bgs. The lens appears on all sides of the excavation. Confirmation soil samples were collected from 3 feet bgs, approximately 6 inches below the white powder lens. A sample of the white powder was also collected (AOC10TAA4-CW5-3).





Sample Results – The results below showed that samples on the western sidewall (AOC10TAA4-CW3-3) and eastern sidewall (AOC10TAA4-CW5-3) at a depth of 3 feet exceed the Remedial Action Goals (RAGs). These sampling locations are shown in the map below.

RAG Exceedances

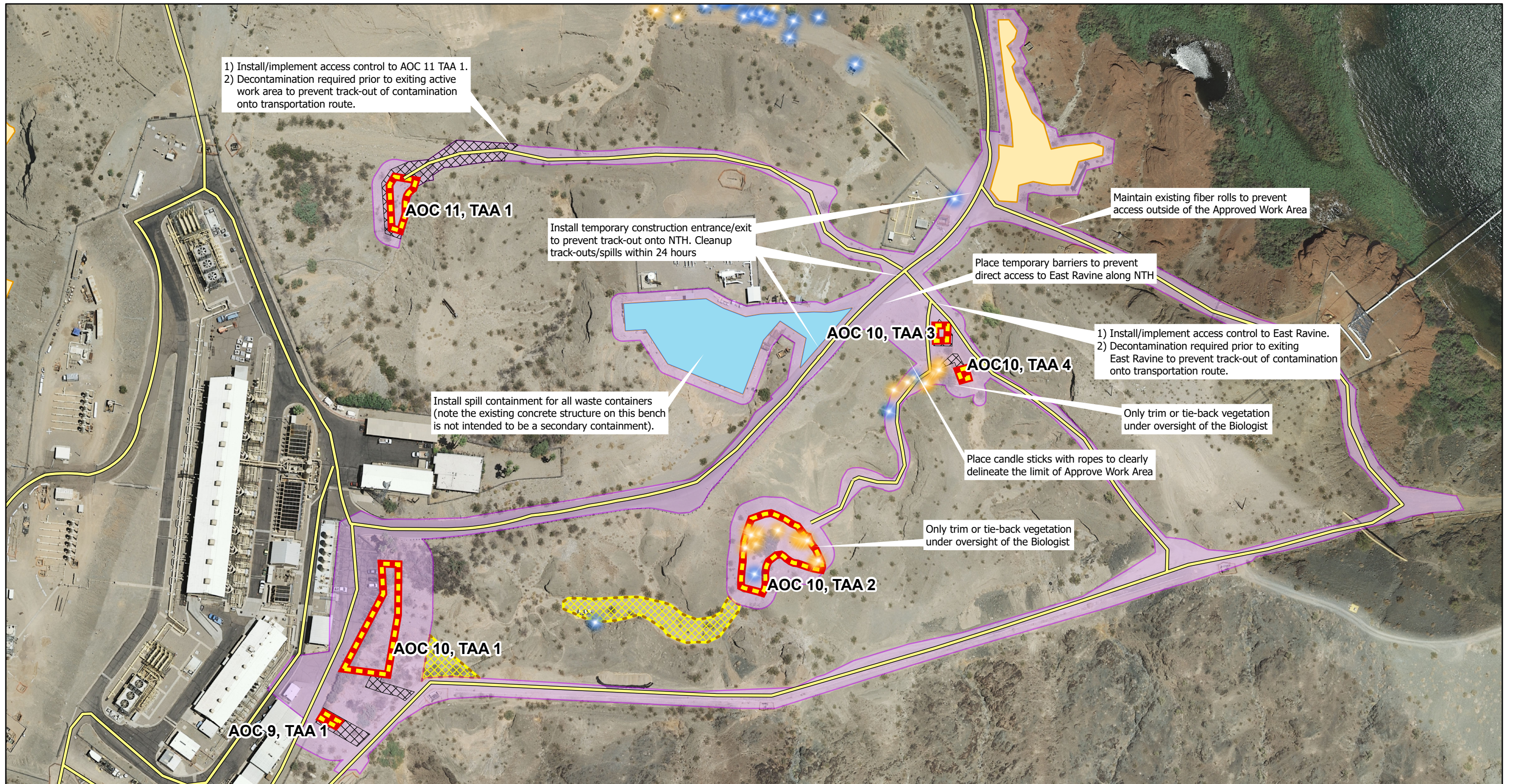
AOC10TAA4-CW3-3 = 320 mg/kg Total Chromium

AOC10TAA4-CW5-3 (white powder) = 530 mg/kg Total Chromium, >241 ng/kg Dioxins/Furans (Immunoassay Method)

Next Steps -- PG&E proposes to step out in 1 foot increment laterally (up to the extent of the approved work area) and to 3 feet bgs to remove the white powder lens.



Regards,
Christina Hong
(626) 297-5292



1) Install/implement access control to AOC 11 TAA 1.
2) Decontamination required prior to exiting active work area to prevent track-out of contamination onto transportation route.

AOC 11, TAA 1

Install temporary construction entrance/exit to prevent track-out onto NTH. Cleanup track-outs/spills within 24 hours

Maintain existing fiber rolls to prevent access outside of the Approved Work Area

Place temporary barriers to prevent direct access to East Ravine along NTH

AOC 10, TAA 3

AOC10, TAA 4

1) Install/implement access control to East Ravine.
2) Decontamination required prior to exiting East Ravine to prevent track-out of contamination onto transportation route.

Install spill containment for all waste containers (note the existing concrete structure on this bench is not intended to be a secondary containment).

Only trim or tie-back vegetation under oversight of the Biologist

Place candle sticks with ropes to clearly delineate the limit of Approve Work Area

AOC 10, TAA 2

Only trim or tie-back vegetation under oversight of the Biologist

AOC 10, TAA 1

AOC 9, TAA 1

- Sensitive Plants:
- blue palo verde
 - honey mesquite

- Target Action Area
- Approved Work Area
- Equipment Staging Area
- Equipment and Soil Container Staging Area

- NTCRA Additional Work Area
- Transportation Route
- Additional Area for Construction Access

Note - ERTC 1 also includes soil sampling by hand (a pre-field work activity) in Bat Cave Wash (SWMU1/AOC1), East Ravine (AOC 9/10), and AOC 11. Sampling locations not shown in this figure and will be identified in the field.

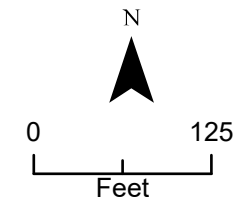


Figure 1
ERTC 1 - AOCs 9, 10, and 11 Soil Non-Time Critical Removal Action (NTCRA)
PG&E Topock Compressor Station
Needles, California

From: Hong, Christina
Sent: Tuesday, August 30, 2022 4:47 PM
To: Aaron Yue; Amelia Flores, CRIT; Potor, Augustine P; Baker, Karen@DTSC; Beahta Davis, Regional Parks; Betty Kuo Brinton, MWD; Bryan Etsitty, CRIT; Cortez, Jose@Waterboards; CourtCoyle@aol.com; Bush, Dan; Danielle Starring, PG&E; Diaz, David; Vigil, David@Wildlife; dbonamici@critdoj.com; Doug Bonamici 2, CRITs; Edgardo Castillo; Sparks, Edwin A; Eric Putnam, ARCADIS; Eric Fordham; Funk, Alexander@Wildlife; yolanda.garza; Sierra Pencille, Chairman; Benson, Gloria B; Guerre, Christopher@DTSC; Hare, Lori@DTSC; Iain Baker, PG&E; Jim Colmer; Janet Newman, Arcadis; Smith, Jeffery B; Darcangelo, Jennifer; Jessica Neuwerth, CRB; Teraoka, Jill C; historicpreservation; Krause, John; Kelly, Colin@DTSC; Bonnett, Kristina; Lisa Kellogg; Lisa.MichelettiCope@arcadis-us.com; Leonhart@hargis.com; Marcos, Jose@DTSC; Margy Gentile, Aracis; martina.dawley; mbloes@pivox.com; Matt Dudley, PG&E; Santos, Mauricio J; Michael Long, H+A for FMIT; Middleton, Greg@Waterboards; Boyles, Michael (Mike); Cavaliere, Mike; Mike Meek, Mohave County DPH; Morgan O'Connor, ADEQ; Lopez, Maria T; Doherty, Nathalie X; Nichole Osuch, ADEQ; Nora McDowell, FMIT; Owens, Zakary@Waterboards; Paul Rochelle, MWD; PGFile@DTSC; Rasmussen, Paula@Waterboards; RG Keith Sheets (keith.sheets@ch2m.com); Rich Juricich, CRB; Meyers, Richard J; Robert Cheng, Coachella Valley Water District; Ron Escobar, Chemehuevi; Ronald Balsamo, Mohave Co; Roy-Semmen, Shukla@DTSC; smcdonald@spmcdonaldlaw.com; Curtis, Stephanie; Steven Escobar, Chemehuevi; Perry, Steven; Stormo, Scot@Waterboards; Anthony Rossi; Trinidad, Criss@DTSC; Valentine, Alexander@Waterboards; vincent.garcia@ihs.gov; Strohl, Virginia; Mack Jr, William; Aaron Yue; Adrienne LaPierre; Brian Schroth, Jacobs; Dawn Duncan-Hubbs, Consultant for FMIT; Frank Lenzo, Arcadis; Greg Foote, Arcadis; Piper, Jay; Vigil, David@Wildlife; ericrosenblum; meggers; Monica Ruth; PGFile@DTSC; prucha; Walt McNab, Jr.; MADRIGAL, ANTHONY; Antoinette Flora, CRIT; Arlene Kingery, Fort Yuma-Quechan; Blake Watahomigie, Hualapai; calisay17@hotmail.com; Carrie Imus, Hualapai; Chase Choate, Quechan ; Sherry Cordova, Chairwoman; Johnson "JD" Fisher, CRITs; Jolene Marshall, Hualapai; Justin Brundin, Cocopah; LindaOtero@FortMojave.com; Lyndee Hornell, Hualapai; Manfred Scott, Quechan; Sullivan, Michael J; Rena Van Fleet, CRIT; Richard Powskey, Hualapai; rloudbear@critdoj.com; Roland Ferrer, Torres-Martinez; ShanLewis@fortmojave.com; Timothy Williams, Chairman; Toni Carlyle, CRIT; Amber Warden
Cc: Dickerson, Veronica L; Glass, John; Sheets, Keith; Reynolds, Michael; Horan, Bobby
Subject: PG&E Topock Soil NTCRA - Notification of Mesquite Tree Removal at AOC10 TAA4
Attachments: PG&E Topock Soil NTCRA - Notification of Results of Discolored Materials Encountered at AOC 10 TAA 4 and Next Steps

Importance: High

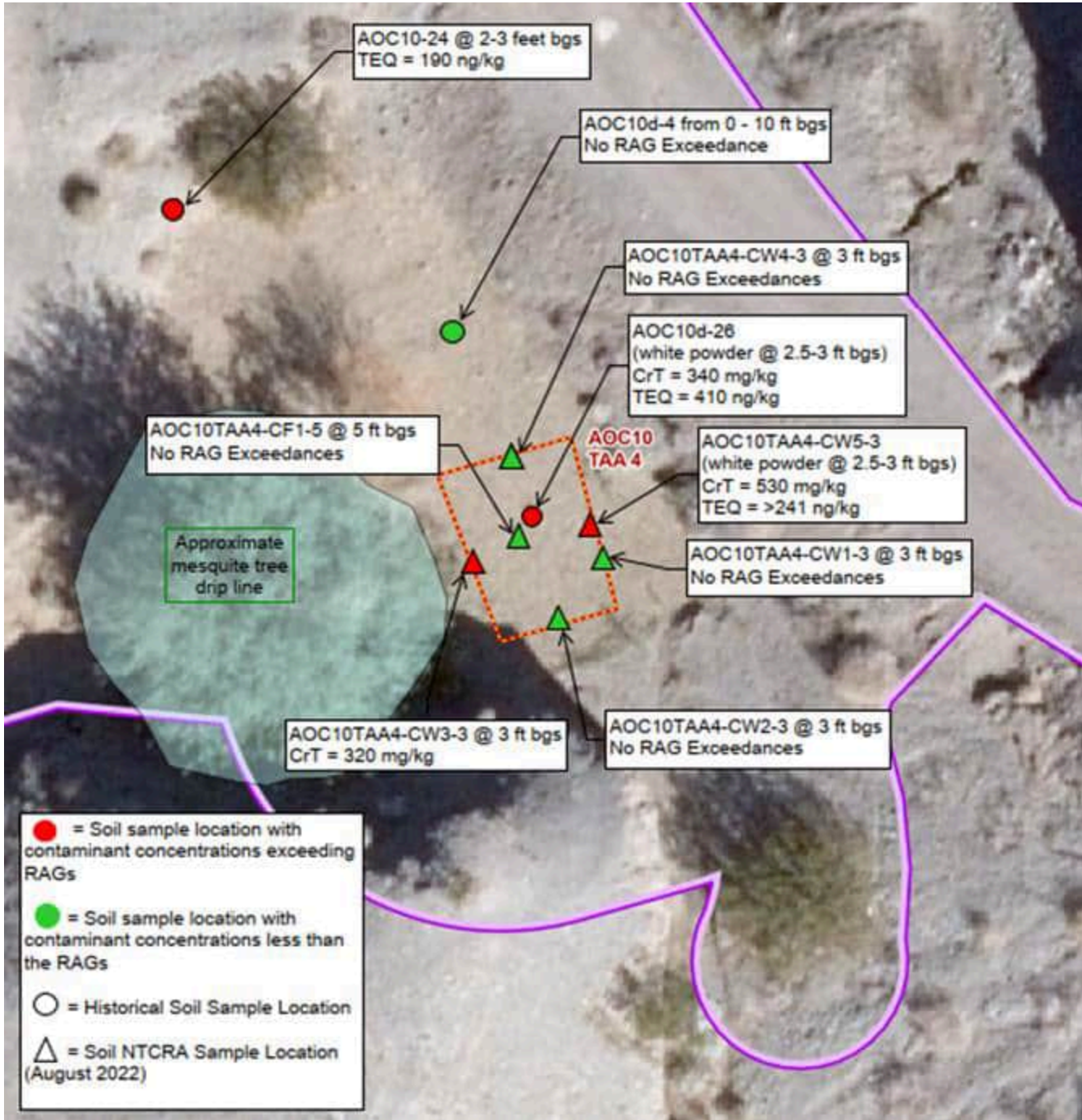
All –

On August 20, 2022, a notification was sent to DTSC, Tribes, and stakeholders regarding the need to step out of the TAA boundaries for AOC10 TAA4 to remove white powder material (see attached email). This email notifies the group of the need to remove the mesquite tree on the west side of AOC10 TAA4.

The western edge of the excavation is within a couple of feet of a mesquite tree's drip line (see site map and photographs below). Several small roots were observed in the excavation's western sidewall and were managed in accordance with the Soil NTCRA mesquite management protocol (allowed to dry and then wrapped in burlap and kept moist). Based on the soil sample data and observations of the white powder, removal of the mesquite tree will be required.

While removal and impacts of indigenous plants of traditional cultural significance are avoided and minimized where possible, there have been locations where construction impacts to native trees cannot be avoided (such as the mesquite tree in AOC10 TAA4). The mesquite tree will be mitigated at a 2:1 ratio. Tribal monitors will be informed of the anticipated removal. The above ground portion of the tree requiring removal will be placed into roll-off containers for proper offsite disposal. The below ground portion will be disposed with the contaminated soil.

Site Map



Photographs





From: Hong, Christina
Sent: Saturday, August 20, 2022 12:36 PM
To: Aaron Yue; Amelia Flores, CRIT; Augustine (August) Potor, BLM; Baker, Karen@DTSC; Beahta Davis, Regional Parks; Betty Kuo Brinton, MWD; Bryan Etsitty, CRIT; Cortez, Jose@Waterboards; CourtCoyle@aol.com; Bush, Dan; Danielle Starring, PG&E; Diaz, David; Vigil, David@Wildlife; dbonamici@critdoj.com; Doug Bonamici 2, CRITs; Edgardo Castillo; Edwin Sparks, USFWS; Eric Putnam, ARCADIS; Eric Fordham; Funk, Alexander@Wildlife; yolanda.garza; Glenn Lodge, Chemehuevi; Gloria Benson, BLM; Guerre, Christopher@DTSC; Hare, Lori@DTSC; Iain Baker, PG&E; Jim Colmer; Janet Newman, Arcadis; Smith, Jeffery B; Darcangelo, Jennifer; Jessica Neuwerth, CRB; Jill C. Teraoka, MWD; historicpreservation; John Krause, BIA; Kelly, Colin@DTSC; Bonnett, Kristina; Lisa Kellogg; Lisa.MichelettiCope@arcadis-us.com; Lleonhart@hargis.com; Marcos, Jose@DTSC; Margy Gentile, Aracis; Martina Dawley, Hualapai; mbloes@pivox.com; Matt Dudley, PG&E; Santos, Mauricio J; Michael Long, H+A for FMIT; Middleton, Greg@Waterboards; Mike Boyles, USBOR; Cavaliere, Mike; Mike Meek, Mohave County DPH; Morgan O'Connor, ADEQ; Lopez, Maria T; Nathalie Doherty, USDO; Nichole Osuch, ADEQ; Nora McDowell, FMIT; Owens, Zakary@Waterboards; Innis, Pamela S; Paul Rochelle, MWD; PGFile@DTSC; Rasmussen, Paula@Waterboards; RG Keith Sheets (keith.sheets@ch2m.com); Rich Juricich, CRB; Richard Meyers, USFWS; Richard Orens, Arcadis; Robert Cheng, Coachella Valley Water District; Ron Escobar, Chemehuevi; Ronald Balsamo, Mohave Co; Roy-Semmen, Shukla@DTSC; smcdonald@spmcdonaldlaw.com; Curtis, Stephanie; Steven Escobar, Chemehuevi; Perry, Steven; Stormo, Scot@Waterboards; Anthony Rossi; Trinidad, Criss@DTSC; Valentine, Alexander@Waterboards; Dickerson, Veronica L; vincent.garcia@ihs.gov; Strohl, Virginia; William Mack, BLM; Aaron Yue; Adrienne LaPierre; Brian Schroth, Jacobs; Dawn Duncan-Hubbs, Consultant for FMIT; Frank Lenzo, Arcadis; Greg Foote, Arcadis; Piper, Jay; Vigil, David@Wildlife; ericrosenblum; meggers; Monica Ruth; PGFile@DTSC; prucha; Walt McNab, Jr.; Anthony Madrigal, Jr., 29 Palms; Antoinette Flora, CRIT; Arlene Kingery, Fort Yuma-Quechan; Blake Watahomigie, Hualapai; calisay17@hotmail.com; Carrie Imus, Hualapai; Chase Choate, Quechan ; cocotcsec@cocopah.com; Johnson "JD" Fisher, CRITs; Jolene Marshall, Hualapai; Justin Brundin, Cocopah; LindaOtero@FortMojave.com; Lyndee Hornell, Hualapai; Manfred Scott, Quechan; Sullivan, Michael J; Rena Van Fleet, CRIT; Richard Powskey, Hualapai; rloubear@critdoj.com; Roland Ferrer, Torres-Martinez; ShanLewis@fortmojave.com; Williams, Timothy@CDSS-Import; Toni Carlyle, CRIT
Cc: Dickerson, Veronica L; Glass, John; Sheets, Keith; Reynolds, Michael; Horan, Bobby
Subject: PG&E Topock Soil NTCRA - Notification of Results of Discolored Materials Encountered at AOC 10 TAA 4 and Next Steps
Attachments: ERTC Soil Fig 1.pdf

Good morning -

During the Soil Non-time Critical Removal Action (NTCRA) excavation at Area of Concern (AOC) 10 Target Action Area 4 (TAA 4), white powder material was observed approximately 2.5 feet below ground surface (bgs). Per the approved work plan, all excavation stopped at the TAA boundary. The depth of excavation extended to approximately 5 feet bgs. Samples were collected and analyzed for metals and dioxins/furans via immunoassay. This email notifies DTSC, Tribes, the TRC, and stakeholders of the sample results and proposed next steps at this AOC. For your reference, attached is the ERTC figure that shows the location of AOC 10 TAA4.

Location of Discolored Materials – A lens of white powder material (about 2-3 inches thick) was observed approximately 2.5 feet bgs. The lens appears on all sides of the excavation. Confirmation soil samples were collected from 3 feet bgs, approximately 6 inches below the white powder lens. A sample of the white powder was also collected (AOC10TAA4-CW5-3).





Sample Results – The results below showed that samples on the western sidewall (AOC10TAA4-CW3-3) and eastern sidewall (AOC10TAA4-CW5-3) at a depth of 3 feet exceed the Remedial Action Goals (RAGs). These sampling locations are shown in the map below.

RAG Exceedances

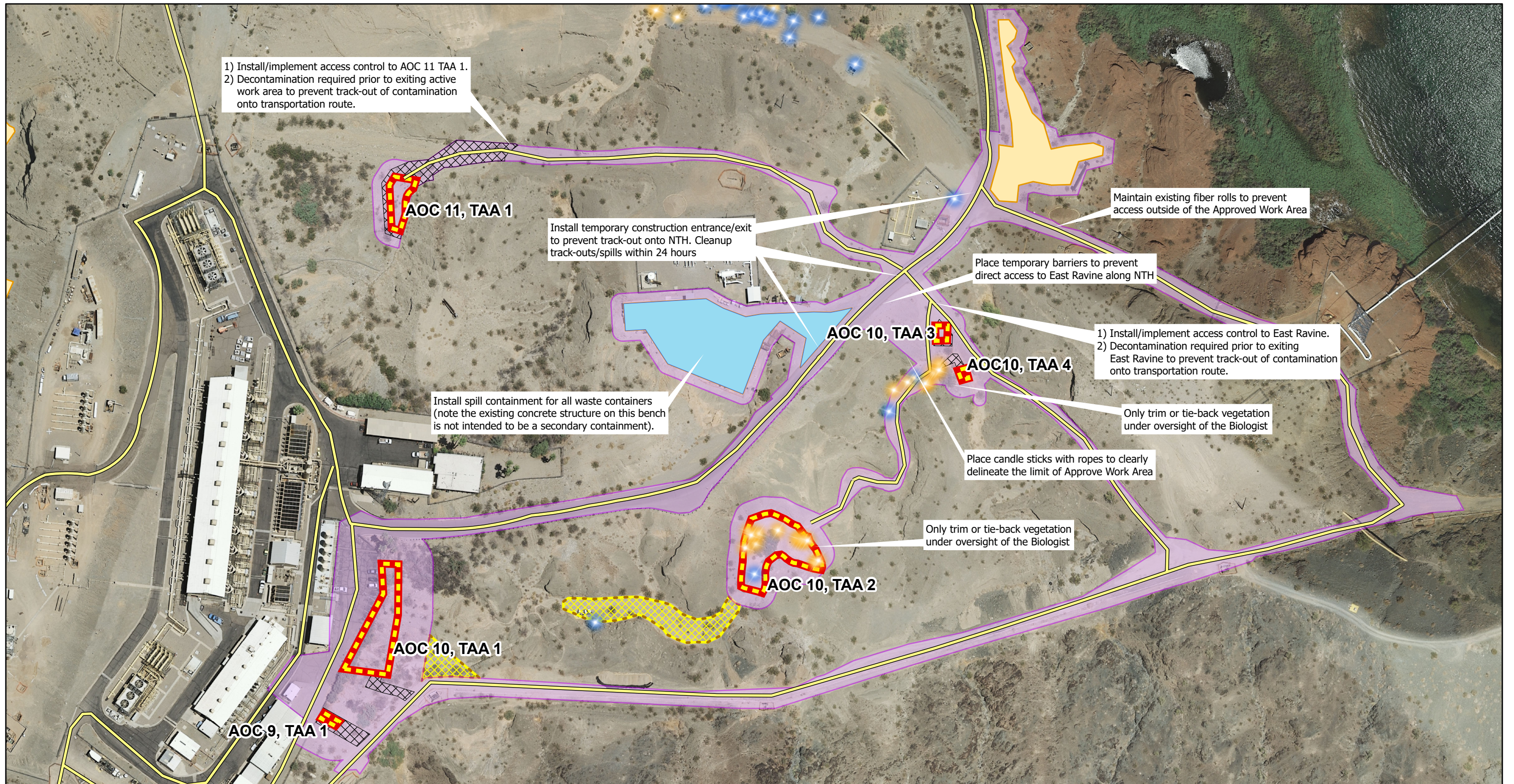
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Next Steps -- PG&E proposes to step out in 1 foot increment laterally (up to the extent of the approved work area) and to 3 feet bgs to remove the white powder lens.



Regards,
Christina Hong
(626) 297-5292



1) Install/implement access control to AOC 11 TAA 1.
2) Decontamination required prior to exiting active work area to prevent track-out of contamination onto transportation route.

AOC 11, TAA 1

Install temporary construction entrance/exit to prevent track-out onto NTH. Cleanup track-outs/spills within 24 hours

Maintain existing fiber rolls to prevent access outside of the Approved Work Area

Place temporary barriers to prevent direct access to East Ravine along NTH

AOC 10, TAA 3

1) Install/implement access control to East Ravine.
2) Decontamination required prior to exiting East Ravine to prevent track-out of contamination onto transportation route.

AOC10, TAA 4

Only trim or tie-back vegetation under oversight of the Biologist

Install spill containment for all waste containers (note the existing concrete structure on this bench is not intended to be a secondary containment).

Place candle sticks with ropes to clearly delineate the limit of Approve Work Area

Only trim or tie-back vegetation under oversight of the Biologist

AOC 10, TAA 2

AOC 10, TAA 1

AOC 9, TAA 1

Sensitive Plants:
 blue palo verde
 honey mesquite

Target Action Area
 Approved Work Area
 Equipment Staging Area
 Equipment and Soil Container Staging Area

NTCRA Additional Work Area
 Transportation Route
 Additional Area for Construction Access

Note - ERTC 1 also includes soil sampling by hand (a pre-field work activity) in Bat Cave Wash (SWMU1/AOC1), East Ravine (AOC 9/10), and AOC 11. Sampling locations not shown in this figure and will be identified in the field.

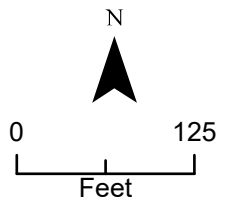


Figure 1
ERTC 1 - AOCs 9, 10, and 11 Soil Non-Time Critical Removal Action (NTCRA)
 PG&E Topock Compressor Station
 Needles, California

Subject: Re: [EXTERNAL] PG&E Topock Soil NTCRA - Notification of Mesquite Tree Removal at AOC10 TAA4
Sent: 9/18/2022, 9:00:43 AM
From: Dickerson, Veronica L<veronica_dickerson@nps.gov>
To: Hong, Christina; Aaron Yue; Amelia Flores, CRIT; Poter, Augustine P; Baker, Karen@DTSC; Beahta Davis, Regional Parks; Betty Kuo Brinton, MWD; Bryan Etsitty, CRIT; Cortez, Jose@Waterboards; CourtCoyle@aol.com; Bush, Dan; Danielle Starring, PG&E; Diaz, David; Vigil, David@Wildlife; dbonamici@critdoj.com; doug.bonamici; Edgardo Castillo; Sparks, Edwin A; Eric Putnam, ARCADIS; Eric Fordham; Funk, Alexander@Wildlife; yolanda.garza; Sierra Pencille, Chairman; Benson, Gloria B; Guerre, Christopher@DTSC; Hare, Lori@DTSC; Baker, Iain; Jim Colmer; Janet Newman, Arcadis; Smith, Jeffery B; Darcangelo, Jennifer; Jessica Neuwerth, CRB; Teraoka, Jill C; historicpreservation; Krause, John; Kelly, Colin@DTSC; Bonnett, Kristina; Lisa Kellogg; Lisa.MichelettiCope@arcadis-us.com; Lleonhart@hargis.com; Marcos, Jose@DTSC; Margy Gentile, Aracis; martina.dawley; mbloes@pivox.com; Dudley, Matthew (LAW); Santos, Mauricio J; Michael Long, H+A for FMIT; Middleton, Greg@Waterboards; Boyles, Michael (Mike); Cavaliere, Mike; Mike Meek, Mohave County DPH; Morgan O'Connor, ADEQ; Lopez, Maria T; Doherty, Nathalie X; Nichole Osuch, ADEQ; Nora McDowell, FMIT; Owens, Zakary@Waterboards; Paul Rochelle, MWD; PGFile@DTSC; Rasmussen, Paula@Waterboards; RG Keith Sheets (keith.sheets@ch2m.com); Rich Juricich, CRB; Meyers, Richard J; Robert Cheng, Coachella Valley Water District; Ron Escobar, Chemehuevi; Ronald Balsamo, Mohave Co; Roy-Semmen, Shukla@DTSC; smcdonald@spmcdonaldlaw.com; Curtis, Stephanie; Steven Escobar, Chemehuevi; Perry, Steven; Stormo, Scot@Waterboards; Anthony Rossi; Trinidad, Criss@DTSC; Valentine, Alexander@Waterboards; vincent.garcia@ihs.gov; Strohl, Virginia; Mack Jr, William; Aaron Yue; Adrienne LaPierre; Brian Schroth, Jacobs; Dawn Duncan-Hubbs, Consultant for FMIT; Frank Lenzo, Arcadis; Greg Foote, Arcadis; Piper, Jay; Vigil, David@Wildlife; ericosenblum; meggers; Monica Ruth; PGFile@DTSC; prucha; Walt McNab, Jr.; MADRIGAL, ANTHONY; Antoinette Flora, CRIT; Arlene Kingery, Fort Yuma-Quechan; Blake Watahomigie, Hualapai; calisay17@hotmail.com; Carrie Imus, Hualapai; Chase Choate, Quechan ; Sherry Cordova, Chairwoman; Johnson "JD" Fisher, CRITs; Jolene Marshall, Hualapai; Justin Brundin, Cocopah; LindaOtero@FortMojave.com; Lyndee Hornell, Hualapai; Manfred Scott, Quechan; Sullivan, Michael J; Rena Van Fleet, CRIT; Richard Powskey, Hualapai; rloubear@critdoj.com; Roland Ferrer, Torres-Martinez; ShanLewis@fortmojave.com; Timothy Williams, Chairman; Toni Carlyle, CRIT; Amber Warden
Cc: Glass, John; Sheets, Keith; Reynolds, Michael; Horan, Bobby

Christina,

DOI is approving the following next steps **ONLY** for AOC10 TAA4 – Pursuant to the approved work plan, PG&E can excavate in 1 foot increment(s), on the three sides that **DO NOT** contain mesquite trees up to the approved work area (purple line), to remove the white powder. Noting that confirmation samples will not be collected until the white powder has been removed or until the excavation has reached the approved work area. Where the white powder soil is not present, PG&E may extend the excavation by 1 foot then collect confirmation samples. If samples still exceed numerical RAG, excavate another foot then collect confirmation samples. Repeat this sequence until confirmation sample is below the RAG or the excavation has reached the approved work area.

IMPORTANT NOTE -

DOI is **NOT** approving the removal of the mesquite trees at this time.



Veronica Dickerson, RSO
Environmental Protection Specialist

440-665-0915

U.S. National Park Service
DOI Regions 3, 4, and 5

On Detail with OS DOI ECRP

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From: Hong, Christina <Christina.Hong@jacobs.com>

Sent: Tuesday, August 30, 2022 6:46 PM

To: Aaron Yue <Aaron.Yue@dtsc.ca.gov>; Amelia Flores, CRIT <amelia.flores@crit-nsn.gov>; Potor, Augustine P <apotor@blm.gov>; Baker, Karen@DTSC <Karen.Baker@dtsc.ca.gov>; Beahta Davis, Regional Parks <beahta.davis@parks.sbcounty.gov>; Betty Kuo Brinton, MWD <bkuo@mwdh2o.com>; Bryan Etsitty, CRIT <betsitty@crit-nsn.gov>; Cortez, Jose@Waterboards <Jose.Cortez@waterboards.ca.gov>; CourtCoyle@aol.com <CourtCoyle@aol.com>; Bush, Dan <Dan.Bush@arcadis.com>; Danielle Starring, PG&E <d9ss@pge.com>; Diaz, David <D3D6@pge.com>; Vigil, David@Wildlife <David.Vigil@wildlife.ca.gov>; dbonamici@critdoj.com <dbonamici@critdoj.com>; Doug Bonamici 2, CRITs <doug.bonamici@crit-nsn.gov>; Edgardo Castillo <cocopahtpm@gmail.com>; Sparks, Edwin A <edwin_sparks@fws.gov>; Eric Putnam, ARCADIS <Eric.Putnam@arcadis-us.com>; Eric Fordham <eric_fordham@geopentech.com>; Funk, Alexander@Wildlife <Alexander.Funk@Wildlife.ca.gov>; yolanda.garza <yolanda.garza@dtsc.ca.gov>; Sierra Pencille, Chairman <chairman@cit-nsn.gov>; Benson, Gloria B <gbbenson@blm.gov>; Guerre, Christopher@DTSC <Christopher.Guerre@dtsc.ca.gov>; Hare, Lori@DTSC <Lori.Hare@dtsc.ca.gov>; Iain Baker, PG&E <IxBj@pge.com>; Jim Colmer <jcolmer@bbande.com>; Janet Newman, Arcadis <Janet.Newman@arcadis.com>; Smith, Jeffery B <JefferySmith@usbr.gov>; Darcangelo, Jennifer <J5D8@pge.com>; Jessica Neuwerth, CRB <jneuwerth@crb.ca.gov>; Teraoka, Jill C <jteraoka@mwdh2o.com>; historicpreservation <historicpreservation@quechantribe.com>; Krause, John <John.Krause@bia.gov>; Kelly, Colin@DTSC <Colin.Kelly@dtsc.ca.gov>; Bonnett, Kristina <KABY@pge.com>; Lisa Kellogg <lisa.kellogg@arcadis.com>; Lisa.MichelettiCope@arcadis-us.com <Lisa.MichelettiCope@arcadis-us.com>; Lleonhart@hargis.com <Lleonhart@hargis.com>; Marcos, Jose@DTSC <jose.marcos@dtsc.ca.gov>; Margy Gentile, Aracis <Margaret.Gentile@arcadis.com>; martina.dawley <martina.dawley@hualapai-nsn.gov>; mbloes@pivox.com <mbloes@pivox.com>; Matt Dudley, PG&E <MGDB@pge.com>; Santos, Mauricio J <MSantos@mwdh2o.com>; Michael Long, H+A for FMIT <MLong@hargis.com>; Middleton, Greg@Waterboards <Greg.Middleton@Waterboards.ca.gov>; Boyles, Michael (Mike) <mboyles@usbr.gov>; Cavaliere, Mike <Mike.Cavaliere@jacobs.com>; Mike Meek, Mohave County DPH <Mike.Meek@mohavecounty.us>; Morgan O'Connor, ADEQ <TO2@azdeq.gov>; Lopez, Maria T <mtlopez@mwdh2o.com>; Doherty, Nathalie X <Nathalie.Doherty@sol.doi.gov>; Nichole Osuch, ADEQ <nso@azdeq.gov>; Nora McDowell, FMIT <NoraMcDowell@fortmojave.com>; Owens, Zakary@Waterboards <Zakary.Owens@Waterboards.ca.gov>; Paul Rochelle, MWD <prochelle@mwdh2o.com>; PGEFile@DTSC <PGEFile@dtsc.ca.gov>; Rasmussen, Paula@Waterboards <Paula.Rasmussen@waterboards.ca.gov>; RG Keith Sheets <keith.sheets@ch2m.com> <keith.sheets@ch2m.com>; Rich Juricich, CRB <rjuricich@crb.ca.gov>; Meyers, Richard J <richard_meyers@fws.gov>; Robert Cheng, Coachella Valley Water District <rcheng@cvwd.org>; Ron Escobar, Chemehuevi <ronetribe@yahoo.com>; Ronald Balsamo, Mohave Co <Ronald.Balsamo@mohavecounty.us>; Roy-Semmen, Shukla@DTSC <Shukla.Roy-Semmen@dtsc.ca.gov>; smcdonald@spmcdonaldlaw.com <smcdonald@spmcdonaldlaw.com>; Curtis, Stephanie <Stephanie.Curtis@jacobs.com>; Steven Escobar, Chemehuevi <administrator@cit-nsn.gov>; Perry, Steven <Steven.Perry@arcadis.com>; Stormo, Scot@Waterboards <Scot.Stormo@Waterboards.ca.gov>; Anthony Rossi <TROSSI@HARGIS.COM>; Trinidad, Criss@DTSC <Criss.Trinidad@dtsc.ca.gov>; Valentine, Alexander@Waterboards <Alexander.Valentine@Waterboards.ca.gov>; vincent.garcia@ihs.gov <vincent.garcia@ihs.gov>; Strohl, Virginia <v1s4@pge.com>; Mack Jr, William <wmack@blm.gov>; Aaron Yue <Aaron.Yue@dtsc.ca.gov>; Adrienne LaPierre <AlaPierre@haleyaldrich.com>; Brian Schroth, Jacobs <bschroth@ch2m.com>; Dawn Duncan-Hubbs, Consultant for FMIT <dawn@sunriseconsultation.com>; Frank Lenzo, Arcadis <Frank.Lenzo@arcadis-us.com>; Greg Foote, Arcadis <Greg.Foote@arcadis.com>; Piper, Jay <Jay.Piper@jacobs.com>; Vigil, David@Wildlife <David.Vigil@wildlife.ca.gov>; ericosenblum <ericosenblum@hotmail.com>; meggers <meggers@eggerv.com>; Monica Ruth <Monica.Ruth@hdrinc.com>; PGEFile@DTSC <PGEFile@dtsc.ca.gov>; prucha <prucha@integratedhydro.com>; Walt McNab, Jr. <walt.mcnab@gmail.com>; MADRIGAL, ANTHONY <AMADRIGAL@29PALMSBOMI-NSN.GOV>; Antoinette Flora, CRIT <aflorea@critdoj.com>; Arlene Kingery, Fort Yuma-Quechan <QuechanHPO@gmail.com>; Blake Watahomigie, Hualapai <bwatahomigie@hualapai-nsn.gov>; calisay17@hotmail.com <calisay17@hotmail.com>; Carrie Imus, Hualapai <cimus@frontiernet.net>; Chase Choate, Quechan <c.choate@quechantribe.com>; Sherry Cordova, Chairwoman <cocotcsec@cocopah.com>; Johnson "JD" Fisher, CRITs <jd.fisher@crit-nsn.gov>; Jolene Marshall, Hualapai

<jmarshall@hualapai-nsn.gov>; Justin Brundin, Cocopah <brundinj@cocopah.com>; LindaOtero@FortMojave.com <LindaOtero@FortMojave.com>; Lyndee Hornell, Hualapai <lhornell@hualapai-nsn.gov>; Manfred Scott, Quechan <scottmanfred@yahoo.com>; Sullivan, Michael J <michael.sullivan@csun.edu>; Rena Van Fleet, CRIT <rena.vanfleet@crit-nsn.gov>; Richard Powskey, Hualapai <rpowskey@hualapai-nsn.gov>; rloudbear@critdoj.com <rloudbear@critdoj.com>; Roland Ferrer, Torres-Martinez <RFerrer@tmdci-nsn.gov>; ShanLewis@fortmojave.com <ShanLewis@fortmojave.com>; Timothy Williams, Chairman <timothywilliams@fortmojave.com>; Toni Carlyle, CRIT <Toni.Carlyle@CRIT-NSN.gov>; Amber Warden <awarden@hargis.com>

Cc: Dickerson, Veronica L <veronica_dickerson@nps.gov>; Glass, John <F2G5@pge.com>; Sheets, Keith <Keith.Sheets@jacobs.com>; Reynolds, Michael <Michael.Reynolds@jacobs.com>; Horan, Bobby <Bobby.Horan@jacobs.com>

Subject: [EXTERNAL] PG&E Topock Soil NTCRA - Notification of Mesquite Tree Removal at AOC10 TAA4

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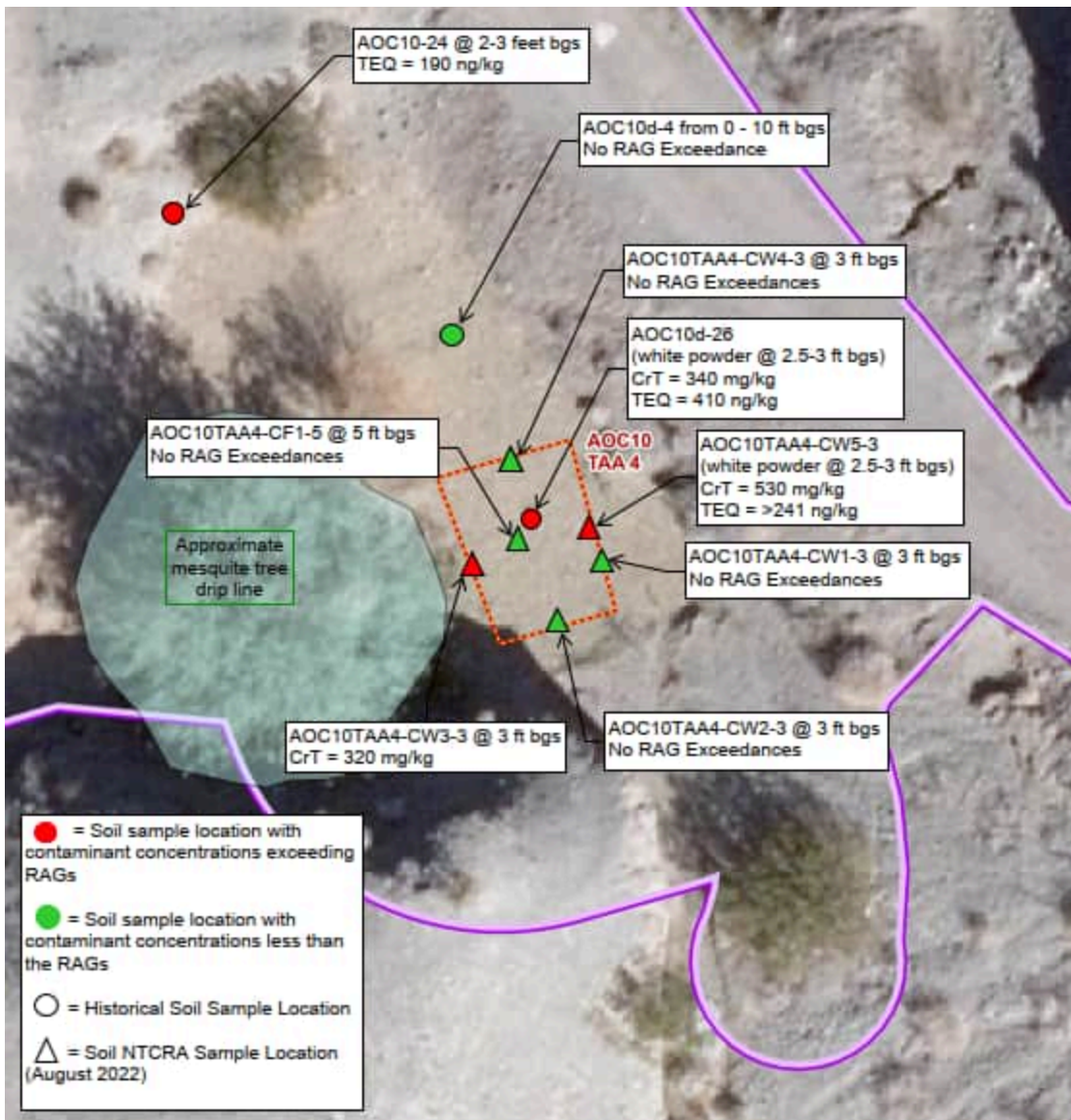
All –

On August 20, 2022, a notification was sent to DTSC, Tribes, and stakeholders regarding the need to step out of the TAA boundaries for AOC10 TAA4 to remove white powder material (see attached email). This email notifies the group of the need to remove the mesquite tree on the west side of AOC10 TAA4.

The western edge of the excavation is within a couple of feet of a mesquite tree's drip line (see site map and photographs below). Several small roots were observed in the excavation's western sidewall and were managed in accordance with the Soil NTCRA mesquite management protocol (allowed to dry and then wrapped in burlap and kept moist). Based on the soil sample data and observations of the white powder, removal of the mesquite tree will be required.

While removal and impacts of indigenous plants of traditional cultural significance are avoided and minimized where possible, there have been locations where construction impacts to native trees cannot be avoided (such as the mesquite tree in AOC10 TAA4). The mesquite tree will be mitigated at a 2:1 ratio. Tribal monitors will be informed of the anticipated removal. The above ground portion of the tree requiring removal will be placed into roll-off containers for proper offsite disposal. The below ground portion will be disposed with the contaminated soil.

Site Map



Photographs



Mesquite
Tree

White
Powder

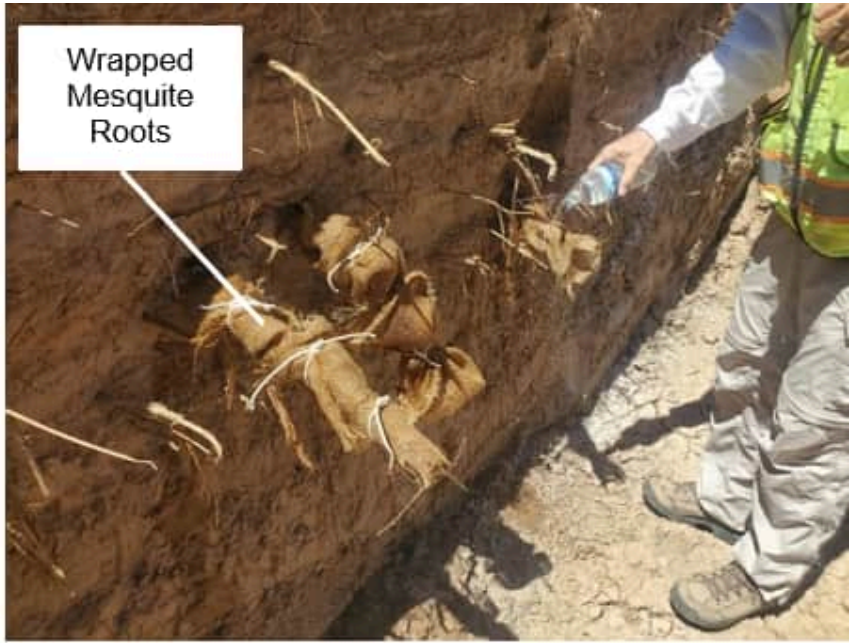
White
Powder



White Powder
Extending Under
Mesquite Tree



White
Powder



Wrapped
Mesquite
Roots

Subject: Re: [EXTERNAL] PG&E Topock Soil NTCRA - Notification of Discolored Materials Encountered in AOC10 TAA2, Lab Results, and Proposed Next Steps

Sent: 9/18/2022, 8:50:41 AM

From: Dickerson, Veronica L<veronica_dickerson@nps.gov>

To: Hong, Christina; Aaron Yue; Amelia Flores, CRIT; Potor, Augustine P; Baker, Karen@DTSC; Beahta Davis, Regional Parks; Betty Kuo Brinton, MWD; Bryan Etsitty, CRIT; Cortez, Jose@Waterboards; CourtCoyle@aol.com; Bush, Dan; Danielle Starring, PG&E; Diaz, David; Vigil, David@Wildlife; dbonamici@critdoj.com; doug.bonamici; Edgardo Castillo; Sparks, Edwin A; Eric Putnam, ARCADIS; Eric Fordham; Funk, Alexander@Wildlife; yolanda.garza; Sierra Pencille, Chairman; Benson, Gloria B; Guerre, Christopher@DTSC; Hare, Lori@DTSC; Baker, Iain; Jim Colmer; Janet Newman, Arcadis; Smith, Jeffery B; Darcangelo, Jennifer; Jessica Neuwerth, CRB; Teraoka, Jill C; historicpreservation; Krause, John; Kelly, Colin@DTSC; Bonnett, Kristina; Lisa Kellogg; Lisa.MichelettiCope@arcadis-us.com; Lleonhart@hargis.com; Marcos, Jose@DTSC; Margy Gentile, Aracis; martina.dawley; mbloes@pivox.com; Dudley, Matthew (LAW); Santos, Mauricio J; Michael Long, H+A for FMIT; Middleton, Greg@Waterboards; Boyles, Michael (Mike); Cavaliere, Mike; Mike Meek, Mohave County DPH; Morgan O'Connor, ADEQ; Lopez, Maria T; Doherty, Nathalie X; Nichole Osuch, ADEQ; Nora McDowell, FMIT; Owens, Zakary@Waterboards; Innis, Pamela S; Paul Rochelle, MWD; PGEFile@DTSC; Rasmussen, Paula@Waterboards; RG Keith Sheets (keith.sheets@ch2m.com); Rich Juricich, CRB; Meyers, Richard J; Robert Cheng, Coachella Valley Water District; Ron Escobar, Chemehuevi; Ronald Balsamo, Mohave Co; Roy-Semmen, Shukla@DTSC; smcdonald@spmcdonaldlaw.com; Curtis, Stephanie; Steven Escobar, Chemehuevi; Perry, Steven; Stormo, Scot@Waterboards; Anthony Rossi; Trinidad, Criss@DTSC; Valentine, Alexander@Waterboards; vincent.garcia@ihs.gov; Strohl, Virginia; Mack Jr, William; Dawn Duncan-Hubbs, Consultant for FMIT; Frank Lenzo, Arcadis; Greg Foote, Arcadis; Piper, Jay; Vigil, David@Wildlife; ericrosenblum; meggers; Monica Ruth; PGEFile@DTSC; prucha; Walt McNab, Jr.; MADRIGAL, ANTHONY; Antoinette Flora, CRIT; Arlene Kingery, Fort Yuma-Quechan; Blake Watahomigie, Hualapai; calisay17@hotmail.com; Carrie Imus, Hualapai; Chase Choate, Quechan ; Sherry Cordova, Chairwoman; Johnson "JD" Fisher, CRITs; Jolene Marshall, Hualapai; Justin Brundin, Cocopah; LindaOtero@FortMojave.com; Lyndee Hornell, Hualapai; Manfred Scott, Quechan; Sullivan, Michael J; Rena Van Fleet, CRIT; Richard Powskey, Hualapai; rloudbear@critdoj.com; Roland Ferrer, Torres-Martinez; ShanLewis@fortmojave.com; Timothy Williams, Chairman; Toni Carlyle, CRIT; Amber Warden

Cc: Glass, John; Sheets, Keith; Reynolds, Michael; Horan, Bobby

Christina,

DOI is approving the following next steps **ONLY** for AOC10 TAA2 – Pursuant to the approved work plan, PG&E can excavate in 1 foot increment(s), on the three sides that **DO NOT** contain mesquite trees up to the approved work area (purple line), to remove the white powder, green soil, and/or grey soil. Noting that confirmation samples will not be collected until the white powder has been removed or until the excavation has reached the approved work area. Where the white powder, green soil, and/or grey soil is not present, PG&E may extend the excavation by 1 foot then collect confirmation samples. If still exceed numerical RAG, excavate another foot then collect confirmation samples. Repeat this sequence until confirmation sample is below the RAG or the excavation has reached the approved work area.

IMPORTANT NOTE -

DOI is **NOT** approving the removal of the mesquite trees at this time.



Veronica Dickerson, RSO
Environmental Protection Specialist

440-665-0915

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From: Hong, Christina <Christina.Hong@jacobs.com>

Sent: Monday, September 12, 2022 1:35 PM

To: Aaron Yue <Aaron.Yue@dtsc.ca.gov>; Amelia Flores, CRIT <amelia.flores@crit-nsn.gov>; Potor, Augustine P <apotor@blm.gov>; Baker, Karen@DTSC <Karen.Baker@dtsc.ca.gov>; Beahta Davis, Regional Parks <beahta.davis@parks.sbcounty.gov>; Betty Kuo Brinton, MWD <bkuo@mwdh2o.com>; Bryan Etsitty, CRIT <betsitty@crit-nsn.gov>; Cortez, Jose@Waterboards <Jose.Cortez@waterboards.ca.gov>; CourtCoyle@aol.com <CourtCoyle@aol.com>; Bush, Dan <Dan.Bush@arcadis.com>; Danielle Starring, PG&E <d9ss@pge.com>; Diaz, David <D3D6@pge.com>; Vigil, David@Wildlife <David.Vigil@wildlife.ca.gov>; dbonamici@critdoj.com <dbonamici@critdoj.com>; doug.bonamici <doug.bonamici@crit-nsn.gov>; Edgardo Castillo <cocopahtpm@gmail.com>; Sparks, Edwin A <edwin_sparks@fws.gov>; Eric Putnam, ARCADIS <Eric.Putnam@arcadis-us.com>; Eric Fordham <eric_fordham@geopentech.com>; Funk, Alexander@Wildlife <Alexander.Funk@Wildlife.ca.gov>; yolanda.garza <yolanda.garza@dtsc.ca.gov>; Sierra Pencille, Chairman <chairman@cit-nsn.gov>; Benson, Gloria B <gbbenson@blm.gov>; Guerre, Christopher@DTSC <Christopher.Guerre@dtsc.ca.gov>; Hare, Lori@DTSC <Lori.Hare@dtsc.ca.gov>; Baker, Iain <lxBj@pge.com>; Jim Colmer <jcolmer@bbande.com>; Janet Newman, Arcadis <Janet.Newman@arcadis.com>; Smith, Jeffery B <JefferySmith@usbr.gov>; Darcangelo, Jennifer <J5D8@pge.com>; Jessica Neuwerth, CRB <jneuwerth@crb.ca.gov>; Teraoka, Jill C <jteraoka@mwdh2o.com>; historicpreservation <historicpreservation@quechantribe.com>; Krause, John <John.Krause@bia.gov>; Kelly, Colin@DTSC <Colin.Kelly@dtsc.ca.gov>; Bonnett, Kristina <KABY@pge.com>; Lisa Kellogg <lisa.kellogg@arcadis.com>; Lisa.MichelettiCope@arcadis-us.com <Lisa.MichelettiCope@arcadis-us.com>; Leonhart@hargis.com <Leonhart@hargis.com>; Marcos, Jose@DTSC <jose.marcos@dtsc.ca.gov>; Margy Gentile, Aracis <Margaret.Gentile@arcadis.com>; martina.dawley <martina.dawley@hualapai-nsn.gov>; mbloes@pivox.com <mbloes@pivox.com>; Dudley, Matthew (LAW) <MGDB@pge.com>; Santos, Mauricio J <MSantos@mwdh2o.com>; Michael Long, H+A for FMIT <MLong@hargis.com>; Middleton, Greg@Waterboards <Greg.Middleton@Waterboards.ca.gov>; Boyles, Michael (Mike) <mboyles@usbr.gov>; Cavaliere, Mike <Mike.Cavaliere@jacobs.com>; Mike Meek, Mohave County DPH <Mike.Meek@mohavecounty.us>; Morgan O'Connor, ADEQ <TO2@azdeq.gov>; Lopez, Maria T <mtlopez@mwdh2o.com>; Doherty, Nathalie X <Nathalie.Doherty@sol.doi.gov>; Nichole Osuch, ADEQ <nso@azdeq.gov>; Nora McDowell, FMIT <NoraMcDowell@fortmojave.com>; Owens, Zakary@Waterboards <Zakary.Owens@Waterboards.ca.gov>; Innis, Pamela S <Pamela_Innis@ios.doi.gov>; Paul Rochelle, MWD <prochelle@mwdh2o.com>; PGEFile@DTSC <PGEFile@dtsc.ca.gov>; Rasmussen, Paula@Waterboards <Paula.Rasmussen@waterboards.ca.gov>; RG Keith Sheets (keith.sheets@ch2m.com) <keith.sheets@ch2m.com>; Rich Juricich, CRB <rjuricich@crb.ca.gov>; Meyers, Richard J <richard_meyers@fws.gov>; Robert Cheng, Coachella Valley Water District <rcheng@cvwd.org>; Ron Escobar, Chemehuevi <ronetribe@yahoo.com>; Ronald Balsamo, Mohave Co <Ronald.Balsamo@mohavecounty.us>; Roy-Semmen, Shukla@DTSC <Shukla.Roy-Semmen@dtsc.ca.gov>; smcdonald@spmcdonaldlaw.com <smcdonald@spmcdonaldlaw.com>; Curtis, Stephanie <Stephanie.Curtis@jacobs.com>; Steven Escobar, Chemehuevi <administrator@cit-nsn.gov>; Perry, Steven <Steven.Perry@arcadis.com>; Stormo, Scot@Waterboards <Scot.Stormo@Waterboards.ca.gov>; Anthony Rossi <TROSSI@HARGIS.COM>; Trinidad, Criss@DTSC <Criss.Trinidad@dtsc.ca.gov>; Valentine, Alexander@Waterboards <Alexander.Valentine@Waterboards.ca.gov>; Dickerson, Veronica L <veronica_dickerson@nps.gov>; vincent.garcia@ihs.gov <vincent.garcia@ihs.gov>; Strohl, Virginia <v1s4@pge.com>; Mack Jr, William <wmack@blm.gov>; Dawn Duncan-Hubbs, Consultant for FMIT <dawn@sunriseconsultation.com>; Frank Lenzo, Arcadis <Frank.Lenzo@arcadis-us.com>; Greg Foote, Arcadis <Greg.Foote@arcadis.com>; Piper, Jay <Jay.Piper@jacobs.com>; Vigil, David@Wildlife <David.Vigil@wildlife.ca.gov>; ericrosenblum <ericrosenblum@hotmail.com>; meggers <meggers@eggervenv.com>; Monica Ruth <Monica.Ruth@hdrinc.com>; PGEFile@DTSC <PGEFile@dtsc.ca.gov>; prucha <prucha@integratedhydro.com>; Walt McNab, Jr. <walt.mcnab@gmail.com>; MADRIGAL, ANTHONY <AMADRIGAL@29PALMSBOMI-NSN.GOV>; Antoinette Flora, CRIT <aflora@critdoj.com>; Arlene Kingery, Fort Yuma-Quechan <QuechanHPO@gmail.com>; Blake Watahomigie, Hualapai <bwatahomigie@hualapai-nsn.gov>; calisay17@hotmail.com <calisay17@hotmail.com>; Carrie Imus, Hualapai

<cimus@frontiernet.net>; Chase Choate, Quechan <c.choate@quechantribe.com>; Sherry Cordova, Chairwoman <cocotcsec@cocopah.com>; Johnson "JD" Fisher, CRITs <jd.fisher@crit-nsn.gov>; Jolene Marshall, Hualapai <jmarshall@hualapai-nsn.gov>; Justin Brundin, Cocopah <brundinj@cocopah.com>; LindaOtero@FortMojave.com <LindaOtero@FortMojave.com>; Lyndee Hornell, Hualapai <lhornell@hualapai-nsn.gov>; Manfred Scott, Quechan <scottmanfred@yahoo.com>; Sullivan, Michael J <michael.sullivan@csun.edu>; Rena Van Fleet, CRIT <rena.vanfleet@crit-nsn.gov>; Richard Powskey, Hualapai <rpowskey@hualapai-nsn.gov>; rloudbear@critdoj.com <rloudbear@critdoj.com>; Roland Ferrer, Torres-Martinez <RFerrer@tmdci-nsn.gov>; ShanLewis@fortmojave.com <ShanLewis@fortmojave.com>; Timothy Williams, Chairman <timothywilliams@fortmojave.com>; Toni Carlyle, CRIT <Toni.Carlyle@CRIT-NSN.gov>; Amber Warden <awarden@hargis.com>

Cc: Dickerson, Veronica L <veronica_dickerson@nps.gov>; Glass, John <F2G5@pge.com>; Sheets, Keith <Keith.Sheets@jacobs.com>; Reynolds, Michael <Michael.Reynolds@jacobs.com>; Horan, Bobby <Bobby.Horan@jacobs.com>

Subject: [EXTERNAL] PG&E Topock Soil NTCRA - Notification of Discolored Materials Encountered in AOC10 TAA2, Lab Results, and Proposed Next Steps

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All -

This email notifies DTSC, Tribes, and the TRC that discolored materials were encountered during excavation of AOC 10 TAA 2, laboratory results, and proposed next steps at this AOC. For your reference, attached is the ERTC figure that shows the location of AOC 10 TAA2.

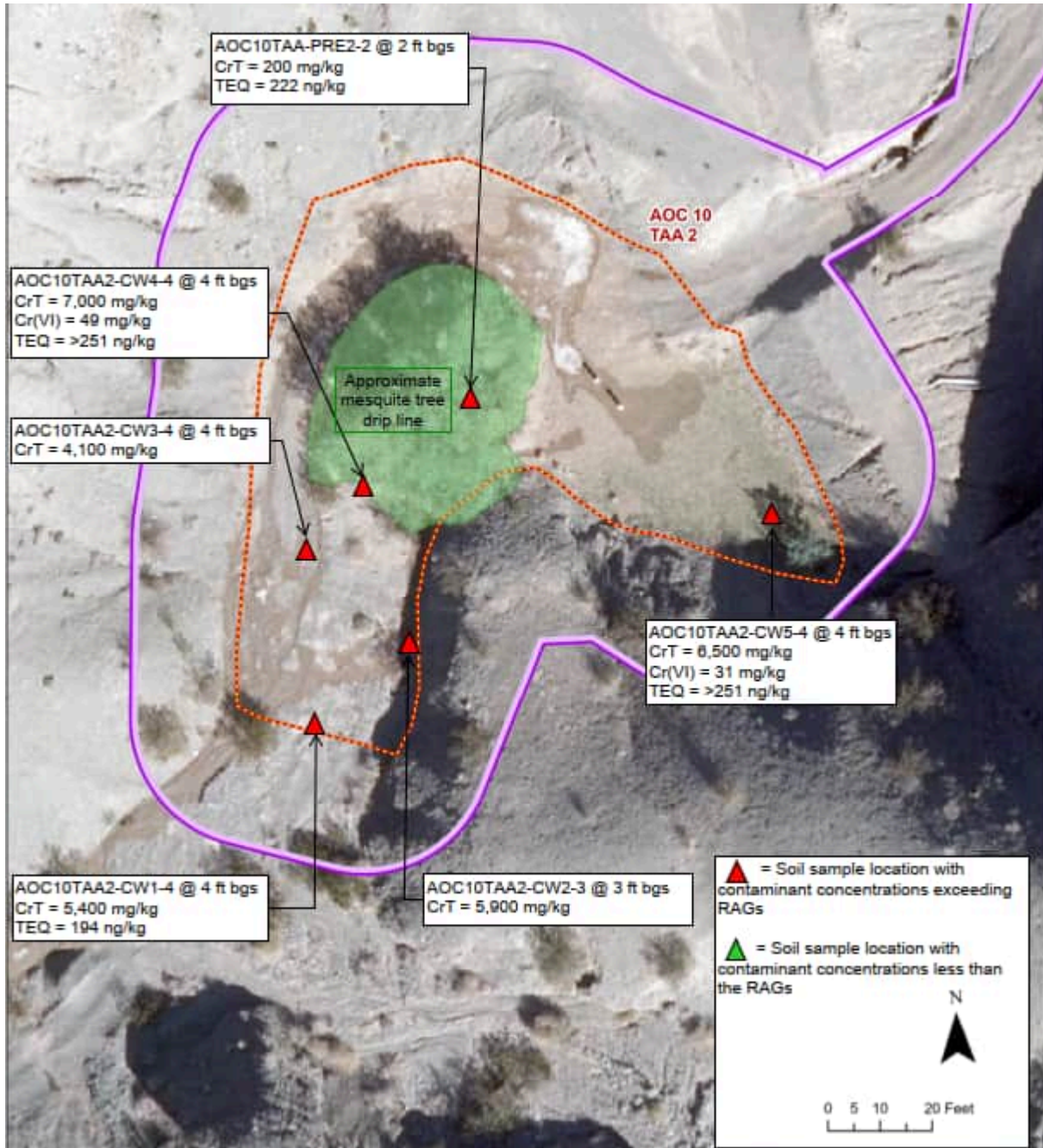
Location of Discolored Materials – There were three types of discolored materials encountered: green soil, grey soil, and white powder lens. These materials were observed at various locations and at various depth to approximately 5 feet below ground surface. Per the approved work plan, all excavation stopped at the TAA boundary to the south, east, west, and northeast. The discolored materials along with side wall samples were collected and analyzed for metals and dioxins/furans via immunoassay (see map below). In addition, one sample was collected just outside the mesquite trees area and one sample was collected under the mesquite tree.

Analytical Results – Laboratory results of soil from the excavation sidewalls indicate total chromium is present in the soil at concentrations ranging from 4,100 mg/kg to 7,000 mg/kg, far exceeding the numerical RAG of 145 mg/kg. Hexavalent chromium concentration exceeded the numerical RAG of 31 mg/kg at one location (the sample close to the mesquite), and equal to the numerical RAG at the NE wall. Dioxin/Furan concentrations (via immunoassay) exceed the numerical of 190 ng/kg at 4 locations (south wall, northeast wall, close to the mesquite, and under the mesquite).

Sample ID			AOC10 TAA2-PRE-2-2	AOC10 TAA2-CW1-4	AOC10 TAA2-CW2-3	AOC10 TAA2-CW3-4	AOC10 TAA2-CW4-4	AOC10 TAA2-CW5-4
Analyte	Units	RAGs	Center (under mesquite)	South Wall	East Wall	West Wall (White powder)	Just south of mesquite	NE Wall
Chromium (SW6010B)	mg/kg	145	200	5,400	5,900	4,100	7,000	6,500
Hex Chrom (SW7199)	mg/kg	31	1.7	15	18	15	49	31
D/F TEQ (SW4025)	ng/kg	190	285	194	181	164	>251	>251

Proposed Next Steps – Pursuant to the approved work plan, PG&E plans to excavate in 1 foot increment, up to the approved work area (purple line), to remove the white powder, green soil, and/or grey soil. Note that confirmation sample will not be collected until the white powder has been removed or until the excavation has reached the approved work area. Where the white powder, green soil, and/or grey soil is not present, PG&E proposes to extend the excavation by 1 foot then collect confirmation samples. If still exceed numerical RAG, excavate another foot then collect confirmation samples. Repeat this sequence until confirmation sample is below the RAG or the excavation has reached the approved work area.

Since elevated concentrations are observed south and in the center of the mesquite trees, PG&E plans to remove the trees. While removal and impacts of indigenous plants of traditional cultural significance are avoided and minimized where possible, there have been locations where construction impacts to native trees cannot be avoided (such as the mesquite trees in AOC10 TAA2). The mesquite tree will be mitigated at a 2:1 ratio. Tribal monitors will be informed of the anticipated removal. The above ground portion of the tree requiring removal will be placed into roll-off containers for proper offsite disposal. The below ground portion will be disposed with the contaminated soil.



Thanks,
Christina Hong

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From: [Dickerson, Veronica L](#)
To: [Doherty, Nathalie X](#); [Glass, John](#); [nso@azdeq.gov](#); [TO2@azdeq.gov](#); [alexander.funk@wildlife.ca.gov](#); [David.Vigil@wildlife.ca.gov](#); [Valentine, Alexander@Waterboards](#); [greg.middleton@waterboards.ca.gov](#); [Jose.cortez@waterboards.ca.gov](#); [paula.rasmussen@waterboards.ca.gov](#); [Scot.Stormo@Waterboards.ca.gov](#); [Zakary.Owens@Waterboards.ca.gov](#); [Tribal_Chair - chairman@cit-nsn.gov](#); [ronetribes@yahoo.com](#); [administrator@cit-nsn.gov](#); [rcheng@cvwd.org](#); [Edgardo Castillo](#); [rjuricich@crb.ca.gov](#); [ineuwerth@crb.ca.gov](#); [Amelia Flores - amelia.flores@crit-nsn.gov](#); [doug.bonamici@crit-nsn.gov](#); [betsitty@crit-nsn.gov](#); [Aaron Yue](#); [Guerre, Christopher@DTSC](#); [Collin.Kelly@dtsc.ca.gov](#); [Criss.Trinidad@dtsc.ca.gov](#); [Marcos, Jose@DTSC](#); [Baker, Karen@DTSC](#); [lori.hare@dtsc.ca.gov](#); [shukla.roy-semmen@dtsc.ca.gov](#); [yolanda.garza](#); [NoraMcDowell@fortmojave.com](#); [CourtCoyle@aol.com](#); [Leonhart@hargis.com](#); [mlong@hargis.com](#); [smcdonald@spmcDonaldlaw.com](#); [Anthony Rossi](#); [Jill McCormick](#); [martina.dawley](#); [bkuo@mw2o.com](#); [Teraoka, Jill C](#); [Lopez, Maria T](#); [Santos, Mauricio J](#); [prochelle@mw2o.com](#); [Eric Fordham](#); [Ronald.Balsamo@mohavecounty.us](#); [vincent.garcia@ihs.gov](#); [Baker, Iain](#); [ami@pge.com](#); [Darcangelo, Jennifer](#); [Kevin Sullivan](#); [Bonnett, Kristina](#); [Dudley, Matthew \(LAW\)](#); [Strohl, Virginia](#); [d9ss@pge.com](#); [Diaz, David](#); [Hong, Christina](#); [Cavaliere, Mike](#); [Curtis, Stephanie](#); [Bush, Dan](#); [Eric.Putnam@arcadis-us.com](#); [Janet.Newman@arcadis.com](#); [Lisa Kellogg](#); [Lisa.MichelettiCope@arcadis-us.com](#); [Margaret.Gentile@arcadis-us.com](#); [richard.orens@arcadis-us.com](#); [Perry, Steven](#); [mbloes@pivox.com](#); [Shakeel Jogia](#); [behta.davis@parks.sbcounty.gov](#); [Krause, John](#); [Mack Jr, William](#); [Potor, Augustine P](#); [Benson, Gloria B](#); [Munkres, James W](#); [Smith, Jeffery B](#); [Boyles, Michael \(Mike\)](#); [Jim Colmer](#); [Sparks, Edwin A](#); [Russell, Kevin R](#); [Meyers, Richard J](#); [Sheets, Keith](#); [Reynolds, Michael](#)
Subject: [EXTERNAL] Mesquite Tree follow-up
Date: Thursday, December 15, 2022 11:18:44 AM

This email is to inform the larger group of a decision made during a December 8th call with the Tribes as well the Refuge. After much consultation and review I informed the group of the decision regarding the mesquite trees located at AOC TAA2 and AOC TAA4.

As discussed, the following actions will take place.

AOC TAA2 - As I mentioned on the call, sadly the data shows that the larger group of mesquite trees as well as a single mesquite located behind them will require removal to ensure all contaminated soils are removed. This will allow us to meet RAO 2 and 3.

AOC TAA4 - Data shows that the mesquite tree located in this area will remain in place.

Below you will find the removal plan for the AOC10 TAA2 trees. This action is anticipated to take place next week.

- Pruning of branches using chainsaw to reduce the canopy
- Chain saw cutting of trunks down to ground surface
- Tree branches and trunks to be placed via the excavator for health and safety reasons into soil bins
- Soil bins will be transported with tree debris to local landfill for disposal as non-impacted material
- Below ground root ball(s) will be removed via excavator and disposed of with contaminated soil from the SPY

All the best,
Veronica

Veronica Dickerson

Environmental Compliance and Cleanup Division
Office of Environmental Policy and Compliance (OEPC)
US Department of Interior

440-665-0915

Subject: Re: [EXTERNAL] UPDATE -- PG&E Topock Soil NTCRA - Notification of Results of Discolored Materials Encountered at AOC 11 and Next Steps

Sent: 8/30/2022, 12:56:18 PM

From: Dickerson, Veronica L<veronica_dickerson@nps.gov>

To: Hong, Christina; Aaron Yue; Amelia Flores, CRIT; Potor, Augustine P; Baker, Karen@DTSC; Beahta Davis, Regional Parks; Betty Kuo Brinton, MWD; Bryan Etsitty, CRIT; Cortez, Jose@Waterboards; CourtCoyle@aol.com; Bush, Dan; Danielle Starring, PG&E; Diaz, David; Vigil, David@Wildlife; dbonamici@critdoj.com; Doug Bonamici 2, CRITs; Edgardo Castillo; Sparks, Edwin A; Eric Putnam, ARCADIS; Eric Fordham; Funk, Alexander@Wildlife; yolanda.garza; Sierra Pencille, Chairman; Benson, Gloria B; Guerre, Christopher@DTSC; Hare, Lori@DTSC; Iain Baker, PG&E; Jim Colmer; Janet Newman, Arcadis; Smith, Jeffery B; Darcangelo, Jennifer; Jessica Neuwerth, CRB; Teraoka, Jill C; historicpreservation; Krause, John; Kelly, Colin@DTSC; Bonnett, Kristina; Lisa Kellogg; Lisa.MichelettiCope@arcadis-us.com; Lleonhart@hargis.com; Marcos, Jose@DTSC; Margy Gentile, Aracis; martina.dawley; mbloes@pivox.com; Matt Dudley, PG&E; Santos, Mauricio J; Michael Long, H+A for FMIT; Middleton, Greg@Waterboards; Boyles, Michael (Mike); Cavaliere, Mike; Mike Meek, Mohave County DPH; Morgan O'Connor, ADEQ; Lopez, Maria T; Doherty, Nathalie X; Nichole Osuch, ADEQ; Nora McDowell, FMIT; Owens, Zakary@Waterboards; Innis, Pamela S; Paul Rochelle, MWD; PGEFile@DTSC; Rasmussen, Paula@Waterboards; RG Keith Sheets (keith.sheets@ch2m.com); Rich Juricich, CRB; Meyers, Richard J; Richard Orens, Arcadis; Robert Cheng, Coachella Valley Water District; Ron Escobar, Chemehuevi; Ronald Balsamo, Mohave Co; Roy-Semmen, Shukla@DTSC; smcdonald@spmcdonaldlaw.com; Curtis, Stephanie; Steven Escobar, Chemehuevi; Perry, Steven; Stormo, Scot@Waterboards; Anthony Rossi; Trinidad, Criss@DTSC; Valentine, Alexander@Waterboards; vincent.garcia@ihs.gov; Strohl, Virginia; Mack Jr, William; Aaron Yue; Adrienne LaPierre; Brian Schroth, Jacobs; Dawn Duncan-Hubbs, Consultant for FMIT; Frank Lenzo, Arcadis; Greg Foote, Arcadis; Piper, Jay; Vigil, David@Wildlife; ericrosenblum; meggers; Monica Ruth; PGEFile@DTSC; prucha; Walt McNab, Jr.; MADRIGAL, ANTHONY; Antoinette Flora, CRIT; Arlene Kingery, Fort Yuma-Quechan; Blake Watahomigie, Hualapai; calisay17@hotmail.com; Carrie Imus, Hualapai; Chase Choate, Quechan ; Sherry Cordova, Chairwoman; Johnson "JD" Fisher, CRITs; Jolene Marshall, Hualapai; Justin Brundin, Cocopah; LindaOtero@FortMojave.com; Lyndee Hornell, Hualapai; Manfred Scott, Quechan; Sullivan, Michael J; Rena Van Fleet, CRIT; Richard Powskey, Hualapai; rloudbear@critdoj.com; Roland Ferrer, Torres-Martinez; ShanLewis@fortmojave.com; Timothy Williams, Chairman; Toni Carlyle, CRIT; Amber Warden

Cc: Glass, John; Sheets, Keith; Reynolds, Michael; Horan, Bobby

Hi Christina,

Regarding next steps – DOI understands that on both the east and west side walls there is a white powder lens present. PG&E is proposing to excavate in 1 foot increments, up to the approved work area (purple line), to remove the white powder. Noting that confirmation samples will not be collected until the white powder has been removed or until the excavation has reached the approved work area.

Where the white powder is not present, PG&E is proposing to extend the excavation by 1 foot then collect confirmation samples. If there is still an exceedance is numerical RAGs, PG&E will excavate another foot then collect confirmation samples. This sequence will be repeated until the confirmation sample is below the RAG or the excavation has reached the approved work area.

DOI concurs with this approach and expects to be kept informed throughout the process.



Veronica Dickerson, RSO
Environmental Protection Specialist

440-665-0915

U.S. National Park Service

DOI Regions 3, 4, and 5
On Detail with OS DOI ECRP

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From: Hong, Christina <Christina.Hong@jacobs.com>

Sent: Friday, August 26, 2022 2:20 PM

To: Aaron Yue <Aaron.Yue@dtsc.ca.gov>; Amelia Flores, CRIT <amelia.flores@crit-nsn.gov>; Potor, Augustine P <apotor@blm.gov>; Baker, Karen@DTSC <Karen.Baker@dtsc.ca.gov>; Beahta Davis, Regional Parks <beahta.davis@parks.sbcounty.gov>; Betty Kuo Brinton, MWD <bkuo@mwdh2o.com>; Bryan Etsitty, CRIT <betsitty@crit-nsn.gov>; Cortez, Jose@Waterboards <Jose.Cortez@waterboards.ca.gov>; CourtCoyle@aol.com <CourtCoyle@aol.com>; Bush, Dan <Dan.Bush@arcadis.com>; Danielle Starring, PG&E <d9ss@pge.com>; Diaz, David <D3D6@pge.com>; Vigil, David@Wildlife <David.Vigil@wildlife.ca.gov>; dbonamici@critdoj.com <dbonamici@critdoj.com>; Doug Bonamici 2, CRITs <doug.bonamici@crit-nsn.gov>; Edgardo Castillo <cocopahtpm@gmail.com>; Sparks, Edwin A <edwin_sparks@fws.gov>; Eric Putnam, ARCADIS <Eric.Putnam@arcadis-us.com>; Eric Fordham <eric_fordham@geopentech.com>; Funk, Alexander@Wildlife <Alexander.Funk@Wildlife.ca.gov>; yolanda.garza <yolanda.garza@dtsc.ca.gov>; Sierra Pencille, Chairman <chairman@cit-nsn.gov>; Benson, Gloria B <gbbenson@blm.gov>; Guerre, Christopher@DTSC <Christopher.Guerre@dtsc.ca.gov>; Hare, Lori@DTSC <Lori.Hare@dtsc.ca.gov>; Iain Baker, PG&E <IxBj@pge.com>; Jim Colmer <jcolmer@bbande.com>; Janet Newman, Arcadis <Janet.Newman@arcadis.com>; Smith, Jeffery B <JefferySmith@usbr.gov>; Darcangelo, Jennifer <J5D8@pge.com>; Jessica Neuwerth, CRB <jneuwerth@crb.ca.gov>; Teraoka,Jill C <jteraoka@mwdh2o.com>; historicpreservation <historicpreservation@quechantribe.com>; Krause, John <John.Krause@bia.gov>; Kelly, Colin@DTSC <Colin.Kelly@dtsc.ca.gov>; Bonnett, Kristina <KABY@pge.com>; Lisa Kellogg <lisa.kellogg@arcadis.com>; Lisa.MichelettiCope@arcadis-us.com <Lisa.MichelettiCope@arcadis-us.com>; Lleonhart@hargis.com <Lleonhart@hargis.com>; Marcos, Jose@DTSC <jose.marcos@dtsc.ca.gov>; Margy Gentile, Aracis <Margaret.Gentile@arcadis.com>; martina.dawley <martina.dawley@hualapai-nsn.gov>; mbloes@pivox.com <mbloes@pivox.com>; Matt Dudley, PG&E <MGDB@pge.com>; Santos,Mauricio J <MSantos@mwdh2o.com>; Michael Long, H+A for FMIT <MLong@hargis.com>; Middleton, Greg@Waterboards <Greg.Middleton@Waterboards.ca.gov>; Boyles, Michael (Mike) <mboyles@usbr.gov>; Cavaliere, Mike <Mike.Cavaliere@jacobs.com>; Mike Meek, Mohave County DPH <Mike.Meek@mohavecounty.us>; Morgan O'Connor, ADEQ <TO2@azdeq.gov>; Lopez,Maria T <mtlopez@mwdh2o.com>; Doherty, Nathalie X <Nathalie.Doherty@sol.doi.gov>; Nichole Osuch, ADEQ <nso@azdeq.gov>; Nora McDowell, FMIT <NoraMcDowell@fortmojave.com>; Owens, Zakary@Waterboards <Zakary.Owens@Waterboards.ca.gov>; Innis, Pamela S <Pamela_Innis@ios.doi.gov>; Paul Rochelle, MWD <prochelle@mwdh2o.com>; PGEFile@DTSC <PGEFile@dtsc.ca.gov>; Rasmussen, Paula@Waterboards <Paula.Rasmussen@waterboards.ca.gov>; RG Keith Sheets (keith.sheets@ch2m.com) <keith.sheets@ch2m.com>; Rich Juricich, CRB <rjuricich@crb.ca.gov>; Meyers, Richard J <richard_meyers@fws.gov>; Richard Orens, Arcadis <richard.orens@arcadis-us.com>; Robert Cheng, Coachella Valley Water District <rcheng@cvwd.org>; Ron Escobar, Chemehuevi <ronetribe@yahoo.com>; Ronald Balsamo, Mohave Co <Ronald.Balsamo@mohavecounty.us>; Roy-Semmen, Shukla@DTSC <Shukla.Roy-Semmen@dtsc.ca.gov>; smcdonald@spmcdonaldlaw.com <smcdonald@spmcdonaldlaw.com>; Curtis, Stephanie <Stephanie.Curtis@jacobs.com>; Steven Escobar, Chemehuevi <administrator@cit-nsn.gov>; Perry, Steven <Steven.Perry@arcadis.com>; Stormo, Scot@Waterboards <Scot.Stormo@Waterboards.ca.gov>; Anthony Rossi <TROSSI@HARGIS.COM>; Trinidad, Criss@DTSC <Criss.Trinidad@dtsc.ca.gov>; Valentine, Alexander@Waterboards <Alexander.Valentine@Waterboards.ca.gov>; Dickerson, Veronica L <veronica_dickerson@nps.gov>; vincent.garcia@ihs.gov <vincent.garcia@ihs.gov>; Strohl, Virginia <v1s4@pge.com>; Mack Jr, William <wmack@blm.gov>; Aaron Yue <Aaron.Yue@dtsc.ca.gov>; Adrienne LaPierre <AlaPierre@haleyaldrich.com>; Brian Schroth, Jacobs <bschroth@ch2m.com>; Dawn Duncan-Hubbs, Consultant for FMIT <dawn@sunriseconsultation.com>; Frank Lenzo, Arcadis <Frank.Lenzo@arcadis-us.com>; Greg Foote, Arcadis <Greg.Foote@arcadis.com>; Piper, Jay <Jay.Piper@jacobs.com>; Vigil, David@Wildlife <David.Vigil@wildlife.ca.gov>; ericosenblum <ericosenblum@hotmail.com>; meggers <meggers@eggervenv.com>; Monica Ruth <Monica.Ruth@hdrinc.com>; PGEFile@DTSC <PGEFile@dtsc.ca.gov>; prucha <prucha@integratedhydro.com>; Walt McNab, Jr. <walt.mcnab@gmail.com>; MADRIGAL, ANTHONY <AMADRIGAL@29PALMSBOMI-NSN.GOV>; Antoinette Flora, CRIT <aflora@critdoj.com>; Arlene Kingery, Fort Yuma-Quechan <QuechanHPO@gmail.com>; Blake Watahomigie, Hualapai <bwatahomigie@hualapai-nsn.gov>; calisay17@hotmail.com <calisay17@hotmail.com>; Carrie Imus, Hualapai

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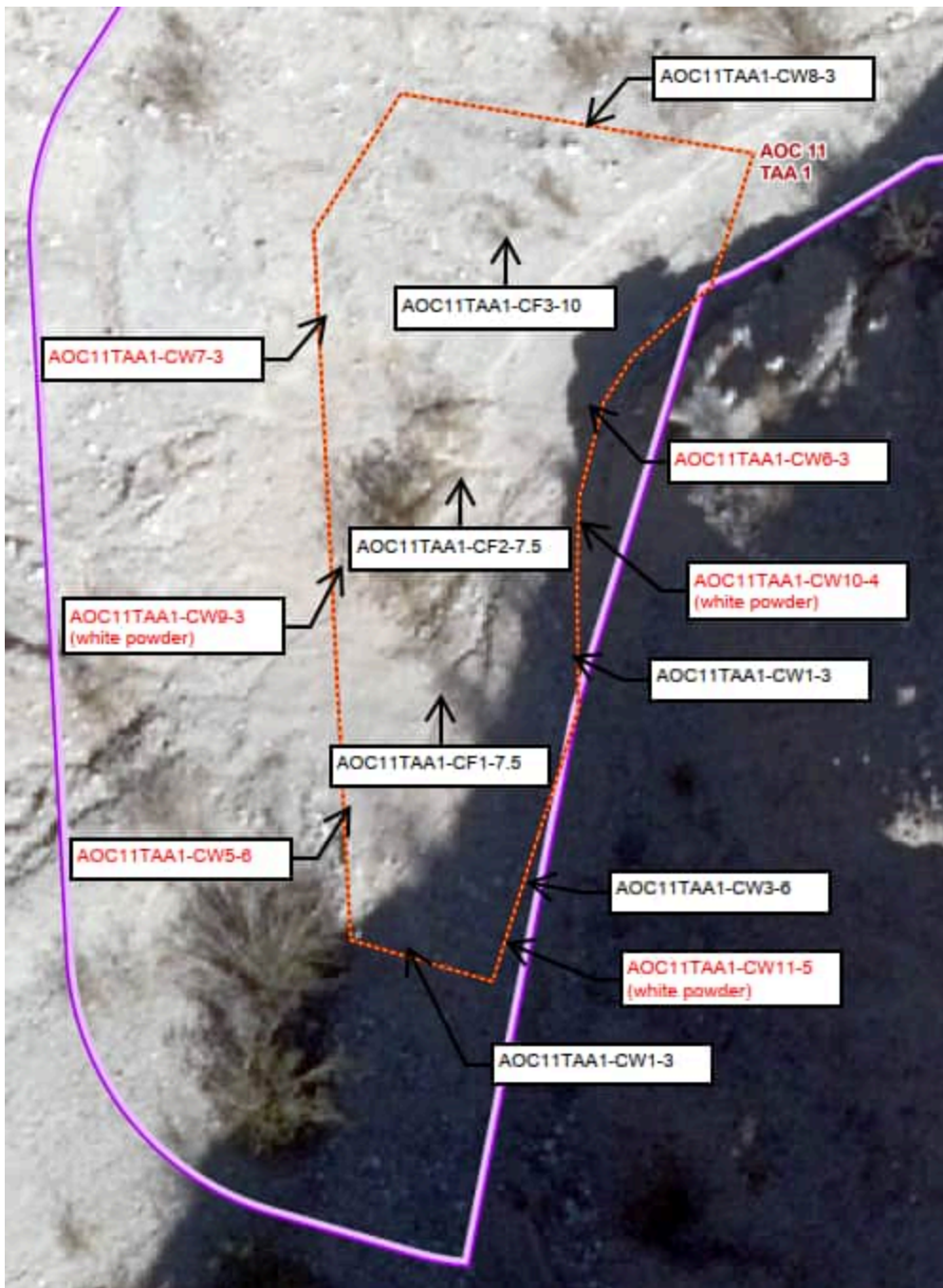
Subject: [EXTERNAL] UPDATE -- PG&E Topock Soil NTCRA - Notification of Results of Discolored Materials Encountered at AOC 11 and Next Steps

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

All – This email provides an update to the original email sent to DTSC, Tribes, and the TRC on 8/9/2022 (attached for your reference). The updated email include validated results of sampling locations where the numerical Remedial Action Goals (RAGs) were exceeded, and the next steps in the removal action at this AOC.

Validated Results - Validated results show that 3 sample locations on the west side wall and 3 sample locations on the east side wall exceeded the numerical RAGs (see map below):

- AOC11TAA1-CW5-6 = Dioxins/furans >259 ng/kg (via Immunoassay 4025m)
- AOC11TAA1-CW6-3 = Dioxins 199 ng/kg (via Immunoassay 4025m)
- AOC11TAA1-CW7-3 = Chromium 160 mg/kg, Dioxins/furans >365 ng/kg (via Immunoassay 4025m)
- AOC11TAA1-CW9-3 = Chromium 420 mg/kg, Copper 280 mg/kg
- AOC11TAA1-CW10-4 = Chromium 1,400 mg/kg, Copper 400 mg/kg
- AOC11TAA1-CW11-5 = Chromium 1,700 mg/kg, Copper 850 mg/kg, Lead 46 mg/kg, Zinc 2,000 mg/kg



Next Steps – On both east and west side walls where the white powder lens is present, PG&E proposes to excavate in 1 foot increment, up to the approved work area (purple line), to remove the white powder. Note that confirmation sample will not be collected until the white powder has been removed or until the excavation has reached the approved work area.

Where the white powder is not present, PG&E proposes to extend the excavation by 1 foot then collect confirmation samples. If still exceed numerical RAG, excavate another foot then collect confirmation samples. Repeat this sequence until confirmation sample is below the RAG or the excavation has reached the approved work area.

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**PACIFIC GAS & ELECTRIC (PG&E) / JACOBS
NTCRA PROJECT**

ASBESTOS DEBRIS CLEAN-UP WORKPLAN

GENERAL OVERVIEW AND REQUIREMENTS

The work described herein will be performed at Pacific Gas and Electric (PG&E) Topock Remedy project Soil Processing Yard and within Area of Concern (AOC) 14. The locations of the project sites are listed below:

- 1) Soil Processing Yard – 515 National Trails Highway, Needles, CA
- 2) AOC-14 – West Bound Lane of I-40, Near Park Moabi Road Exit, Needles, CA.

The project will require the removal of known asbestos containing material previously buried in Area of Concern (AOC) 14. Asbestos containing materials (ACM) are present and may be disturbed during these removal activities. The following work plan will describe the controls to be utilized in completing the project while protecting the workers, staff, its subcontractors, visitors, and the environment.

Abatement activities will follow Federal Occupational Safety and Health Administration (Fed-OSHA) 29 Code of Federal Regulations (CFR) 1910.1101, California Occupational Safety and Health Administration (CAL-OSHA) Title 8 California Code of Regulations (CCR) 1529, Mojave Desert Air Quality Management District (MDAQMD) Rule 302 and this workplan. Work will be conducted by competent persons who are properly trained, knowledgeable and qualified in the techniques of abatement, handling, and disposal of the ACM, Asbestos Containing Construction Material (ACCM), asbestos contaminated materials and other hazardous materials.

The project sites are located within an exclusion zone. The work areas will be controlled and accessed by authorized personnel only.

All work conducted by the certified and licensed abatement contractor will take place between 6:00 am to 4:00 pm unless prior arrangements are made with PG&E's Project Manager.

Work Schedule:

Soil Processing Yard - Stockpile 120 & Stall 15	Date: Prior to May 6, 2023 (This is the last day to complete the work. If this is not attainable, Alliance Environmental needs to inform PG&E/Jacobs as soon as possible.)
AOC-14 Excavation	Date: TBD - September 2023

All contractors involved in this project shall follow their company health and safety policies and procedures to ensure the debris clean-up will be performed safely.

Spill kits will be available on-site throughout the duration of the work.

ABATEMENT CONTRACTOR

The abatement contractor performing the scope of work detailed within is Alliance Environmental Services (AES). The abatement contractor will comply with all federal, state, county, and city

regulations. The abatement contractor will act in accordance with all regulations and PG&E's protocols. AES will obtain all necessary permits and submit notifications to CAL-OSHA, MDAQMD, for the removal of ACM containing debris prior to beginning any work, where required. A copy of the notification(s) will remain on site throughout this project.

WASTE HAULER

The waste hauler performing the scope of work detailed within is MP Environmental Services, Inc. (MPe). The waste hauler will comply with all federal, state, county, and city regulations. The waste hauler will act in accordance with all regulations and PG&E's protocols. MPe will obtain all necessary waste profiles, transport documents such as manifests and ensure waste is properly transported to the landfill facility. Copies of the transport and disposal documentation will be provided to PGE/Jacobs.

HEALTH AND SAFETY CONSULTANT

Independent third-party health and safety oversight and air monitoring during the debris clean-up will be provided by Advanced Environmental Group, Inc. (AEG). AEG will provide independent third-party health and safety oversight and air monitoring during the clean-up. Asbestos monitoring will be performed in accordance with California Code of Regulations (CCR), Title 8, Sections 1529 and, 1532.1. AEG's Certified Site Surveillance Technician (CSST) under the supervision of a Certified Industrial Hygienist (CIH)/Certified Asbestos Consultant (CAC) will oversee the work during abatement activities. AEG will ensure that the workers, PG&E staff, its subcontractors, visitors, and the environment are protected. AEG will perform outside work area air sampling during the abatement phase of the project. AEG will conduct daily visual assessment and collect samples to assess the effectiveness of engineering controls during the work.

MATERIALS SUMMARY

Sampling has been completed at this site identifying the ACM within the two soil stockpiles located in the Soil Processing Yard (SPY). The material originated from AOC-14 excavation. The following sampling laboratory reports have been referenced: AmeriSci PLM Bulk Asbestos Report 2/16/2023; 2/21/2023. Four (4) additional 4-point waste characterization samples were collected from the two soil piles and were reported non-detect (ND) for Asbestos, reference AmeriSci PLM Bulk Asbestos Report 3/1/23. Any suspect materials uncovered during the excavation process will either be sampled or presumed as they are encountered and segregated.

Asbestos

TABLE 1 - ASBESTOS CONTAINING MATERIALS				
Location	Area	Building System Types	Percent Asbestos	Approximate Quantity
Area of Concern (AOC) 14	Excavation	Debris – Block Thermal System Insulation (TSI)	2%-3%Chrysotile (CH); 9%-10% Amosite (AM); 12% Total Asbestos	>100 SF*
*Contractor to verify all quantities in the field				

The material estimates presented in this document are not exact and do not necessarily include locations of all asbestos containing material. It is the contractor's responsibility to investigate the site and to make his/her own determination of all asbestos and other hazardous containing material amounts.

GENERAL HEALTH AND SAFETY REQUIREMENTS

Refer to AES site-specific health and safety plan and company programs for detailed personal protection including respiratory protection, protective clothing and equipment, and personnel air monitoring.

Respiratory Protection

AES will supply all workers, foremen, and superintendents personally issued respiratory protective equipment when conducting any abatement. The respirator/filter assembly will meet NIOSH standards for filtering particulate from the air and is approved for respiratory protection against dusts, fumes, and mists such as airborne asbestos fibers, lead paint particulate and microbiological contaminants.

In the absence of an accepted, appropriate Negative Exposure Assessment, Asbestos work will start with personnel in half face air purifying respirators for, and will only be allowed to downgrade, if daily Personal Air Sample results permit. Note: Daily air sample results will be submitted before the start of work on the following day. Pump calibration will be performed before and after each shift and calibration documentation will be requested.

Facial hairs such as beards, long sideburns, and moustaches, which interfere with the seal of air purifying type respirators, are prohibited.

Respiratory protection maintenance and decontamination procedures will meet the following requirements:

- Respiratory protection will be inspected and decontaminated on a daily shift basis.
- Respiratory protection will be the last piece of worker protection equipment to be removed. Workers will wear respirators in the shower when going through decontamination procedures as stated herein.
- AES will furnish documentation that each worker is medically approved to wear negative pressure respirators and has been properly trained in their use, inspection, care, maintenance, and fitting testing pursuant to their written Respirator Plan.

Protective Clothing and Equipment

Required protective clothing and equipment, such as coveralls or similar whole-body clothing, head covering, gloves, eye protection, and foot coverings, for any employee potentially exposed to airborne concentrations of asbestos will be provided by the AES. Protective clothing is disposable and will be disposed of upon decontamination. AES will provide hard hats, safety shoes, and other safety equipment required to complete the project scope in a safe and protective manner and as required by all applicable safety regulations.

Protective clothing and equipment for hazardous material removal, demolition, and renovation operations are issued and donned prior to entering the work area.

Employees are encouraged to strengthen "problem areas" of disposable coveralls at the beginning of each shift. The competent person periodically examines work suits worn by workers for rips or tears that occur during the performance of work. When rips or tears are detected while a worker is working within a regulated area, they will be immediately mended, or the work suit immediately replaced. All disposable protective clothing will be discarded and disposed of every time the wearer exits from the workspace to the outside through decontamination facilities.

Exposure Air Monitoring

AES is responsible for collecting personnel exposure air monitoring which is required during this project to accurately determine the airborne concentrations of hazardous material. Determinations are to be made from the operator's breathing zone (OBZ) that are representative of the 8-hour Time Weighted Average (TWA) and Short Term Exposure Limit (STEL) (30-minute excursion).

SCOPE OF WORK

SPY Soil Stockpile Removal – Stockpile 120 & Stall 15

It is the intent of this work scope to remove all soil from stockpile and stall areas, minimizing the disturbance of asbestos containing material to the extent possible. AES will be responsible for the following: set-up of the regulated area, removal of asbestos containing materials (ACMs) and soil deemed contaminated, transferring of material to end dump, proper packaging and labeling of material for the transport and disposal of ACM. MPE will be responsible for the transport and disposal of the ACM to pre-selected landfill listed below. The estimated volume of soil to be removed is 840 Cubic Yards.

AOC-14

It is the intent of this work scope to remove all soil within the TAA boundary, minimizing the disturbance of asbestos containing material to the extent possible. Extent of excavation will be confirmed by Jacobs. AES will be responsible for the following: set-up of the regulated area, removal of asbestos containing materials (ACMs) and soil deemed contaminated, transferring of material to waste bins, proper packaging and labeling of material for the transport and disposal of ACM. MPE will be responsible for the transport and disposal of the ACM to pre-selected landfill listed below. The estimated volume of soil to be removed is 800 Cubic Yards.

ASBESTOS DEBRIS AND SOIL REMOVAL

Asbestos containing materials will be removed in accordance with federal, state, and local regulations. Friable and non-friable materials will be removed in accordance with Class I and Class II asbestos removal requirements set forth in CAL-OSHA Department of Occupational Safety and Health (DOSH) 1529 regulations, where applicable. All personnel who will be entering the work area will need proper equipment, certifications including training, fit tests, and approved medicals. All documentation will be provided to the independent third-party consultant prior to start of work and copies will be kept on site.

A regulated area will be set up delineating the work area and will be large enough to maintain a safe distance from the work activities as not to create exposure to others. A decontamination area will be provided using 6-mil polyethylene sheeting and poly bags used to collect disposed PPE. Asbestos Warning and Danger Signs will be posted at all possible entry locations. Signs will indicate the types of hazards present such as asbestos, etc. Additionally, signs will indicate applicable personal protective requirements required inside the work area. The asbestos competent person will visually inspect the regulated area at the beginning and end of each work period. At regulated project sites, Contractor shall use caution tape to demarcate the boundary of the Work zone, and post warning signs. The required signage by Title 8 CCR 1529 should read:

DANGER
ASBESTOS
MAY CAUSE CANCER
CAUSES CANCER TO LUNGS
AUTHORIZED PERSONNEL ONLY
WEAR RESPIRATORY PROTECTION AND PROTECTIVE CLOTHING IN THIS AREA

AES will utilize an excavator to transfer contaminated soil into an end dump truck which is double lined with 6-mil polyethylene plastic and properly labeled. All materials disturbed and to be removed will be kept adequately wet with amended water prior, during and after the excavation and removal process. If additional ACM material or debris is encountered, material will be double bagged using 6-mil polyethylene bags, with the outer bag being “goose necked”. The outer bag containing friable ACM will be an asbestos labeled bag. Sealed bags or wrapped material will be placed within the fully lined disposal container. Once the end dump truck is full, the material will

be wrapped, and the two (2) layers of 6 mil polyethylene plastic sheeting individually sealed with duct tape prior to transport. At the completion of the day, stockpiles and/or exposed material will be wetted and covered with polyethylene sheeting.

Upon completion of the removal, the area will be visually inspected for completeness of work by the contractor competent person and third-party industrial hygienist. All equipment and tools will be properly decontaminated prior to removal from site.

WASTE MANAGEMENT

AES will properly containerize all RCRA, non-RCRA, Hazardous and Non-hazardous wastes streams generated during removal. MPE will obtain waste profile, provide manifests, and utilize current contracts with approved waste disposal facilities to dispose of generated waste. The waste profile and any other requested documentation will be provided to PG&E/Jacobs for review prior to submitting to approved landfill. Shipment of hazardous waste shall be transported by a California Department of Toxic Substances Control (DTSC) licensed hazardous waste hauler, accompanied by a hazardous waste manifest, and sent to facilities licensed to accept asbestos hazardous waste.

The waste will be disposed at the following landfill:

Waste Disposal Site – Republic Services' La Paz County Landfill
26999 Hwy 95, Mile Post 128, Parker, AZ 85344

The third-party industrial hygienist will inspect containers for proper content labels, hazardous properties and accumulation start dates, where applicable.

This plan has been written and approved by:



Prepared by Matt Michaelian, CIH, CAC
ABIH Certification No.: 11012
DOSH Certification No.: 16-5628



**PACIFIC GAS & ELECTRIC (PG&E) / JACOBS
NTCRA PROJECT**

ASBESTOS DEBRIS CLEAN-UP WORKPLAN

GENERAL OVERVIEW AND REQUIREMENTS

The work described herein will be performed at Pacific Gas and Electric (PG&E) Topock Remedy project Soil Processing Yard and within Area of Concern (AOC) 14. The locations of the project sites are listed below:

- 1) Soil Processing Yard – 515 National Trails Highway, Needles, CA
- 2) AOC-14 – West Bound Lane of I-40, Near Park Moabi Road Exit, Needles, CA.

The project will require the removal of known asbestos containing material previously buried in Area of Concern (AOC) 14. Asbestos containing materials (ACM) are present and may be disturbed during these removal activities. The following work plan will describe the controls to be utilized in completing the project while protecting the workers, staff, its subcontractors, visitors, and the environment.

Abatement activities will follow Federal Occupational Safety and Health Administration (Fed-OSHA) 29 Code of Federal Regulations (CFR) 1910.1101, California Occupational Safety and Health Administration (CAL-OSHA) Title 8 California Code of Regulations (CCR) 1529, Mojave Desert Air Quality Management District (MDAQMD) Rule 302 and this workplan. Work will be conducted by competent persons who are properly trained, knowledgeable, and qualified in the techniques of abatement, handling, and disposal of the ACM, Asbestos Containing Construction Material (ACCM), asbestos contaminated materials and other hazardous materials.

The project sites are located within an exclusion zone. The work areas will be controlled and accessed by authorized personnel only.

All work conducted by the certified and licensed abatement contractor will take place between 6:00 am to 4:00 pm unless prior arrangements are made with PG&E's Project Manager.

Work Schedule:

Soil Processing Yard - Stockpile 120 & Stall 15	Date: Prior to May 6, 2023 (This is the last day to complete the work. If this is not attainable, Alliance Environmental needs to inform PG&E/Jacobs as soon as possible.)
AOC-14 Excavation	Estimated Start Date: November 6, 2023

All contractors involved in this project shall follow their company health and safety policies and procedures to ensure the debris clean-up will be performed safely.

Spill kits will be available on-site throughout the duration of the work.

ABATEMENT CONTRACTOR

The abatement contractor performing the scope of work detailed within is Alliance Environmental Services (AES). The abatement contractor will comply with all federal, state, county, and city

regulations. The abatement contractor will act in accordance with all regulations and PG&E's protocols. AES will obtain all necessary permits and submit notifications to CAL-OSHA, MDAQMD, for the removal of ACM containing debris prior to beginning any work, where required. A copy of the notification(s) will remain on site throughout this project.

EARTHWORK CONTRACTOR (AOC-14 Only)

The contractor performing the earthwork detailed within is Groundwater Partners (GWP). The contractor will comply with all federal, state, county, and city regulations. The contractor will act in accordance with all regulations and PG&E's protocols.

WASTE HAULER

The waste hauler performing the scope of work detailed within is MP Environmental Services, Inc. (MPe). The waste hauler will comply with all federal, state, county, and city regulations. The waste hauler will act in accordance with all regulations and PG&E's protocols. MPe will obtain all necessary waste profiles, transport documents such as manifests and ensure waste is properly transported to the landfill facility. Copies of the transport and disposal documentation will be provided to PGE/Jacobs.

HEALTH AND SAFETY CONSULTANT

Independent third-party health and safety oversight and air monitoring during the debris clean-up will be provided by Advanced Environmental Group, Inc. (AEG). AEG will provide independent third-party health and safety oversight and air monitoring during the clean-up. Asbestos monitoring will be performed in accordance with California Code of Regulations (CCR), Title 8, Sections 1529 and, 1532.1. AEG's Certified Site Surveillance Technician (CSST) under the supervision of a Certified Industrial Hygienist (CIH)/Certified Asbestos Consultant (CAC) will oversee the work during abatement activities. AEG will ensure that the workers, PG&E staff, its subcontractors, visitors, and the environment are protected. AEG will perform outside work area air sampling during the abatement phase of the project. AEG will conduct daily visual assessment and collect samples to assess the effectiveness of engineering controls during the work.

MATERIALS SUMMARY

Sampling has been completed at this site identifying the ACM within the two soil stockpiles located in the Soil Processing Yard (SPY). The material originated from AOC-14 excavation. The following sampling laboratory reports have been referenced: AmeriSci PLM Bulk Asbestos Report 2/16/2023; 2/21/2023. Four (4) additional 4-point waste characterization samples were collected from the two soil piles and were reported non-detect (ND) for Asbestos, reference AmeriSci PLM Bulk Asbestos Report 3/1/23. Any suspect materials uncovered during the excavation process will either be sampled or presumed as they are encountered and segregated.

Asbestos

TABLE 1 - ASBESTOS CONTAINING MATERIALS				
Location	Area	Building System Types	Percent Asbestos	Approximate Quantity
Area of Concern (AOC) 14	Excavation	Debris – Block Thermal System Insulation (TSI)	2%-3%Chrysotile (CH); 9%-10% Amosite (AM); 12% Total Asbestos	>100 SF*
*Contractor to verify all quantities in the field				

The material estimates presented in this document are not exact and do not necessarily include locations of all asbestos containing material. It is the contractor's responsibility to investigate the site and to make his/her own determination of all asbestos and other hazardous containing material amounts.

GENERAL HEALTH AND SAFETY REQUIREMENTS

Refer to AES and GWP site-specific health and safety plans and company programs for detailed personal protection including respiratory protection, protective clothing and equipment, and personnel air monitoring.

Respiratory Protection

AES will supply all workers, foremen, and superintendents personally issued respiratory protective equipment when conducting any abatement. GWP will supply personnel respiratory protection where required as per their work task. The respirator/filter assembly will meet NIOSH standards for filtering particulate from the air and is approved for respiratory protection against dusts, fumes, and mists such as airborne asbestos fibers, lead paint particulate and microbiological contaminants.

In the absence of an accepted, appropriate Negative Exposure Assessment, Asbestos work will start with personnel in half face air purifying respirators for, and will only be allowed to downgrade, if daily Personal Air Sample results permit. Note: Daily air sample results will be submitted before the start of work on the following day. Pump calibration will be performed before and after each shift and calibration documentation will be requested.

Facial hairs such as beards, long sideburns, and moustaches, which interfere with the seal of air purifying type respirators, are prohibited.

Respiratory protection maintenance and decontamination procedures will meet the following requirements:

- Respiratory protection will be inspected and decontaminated on a daily shift basis.
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- The contractors will furnish documentation that each worker is medically approved to wear negative pressure respirators and has been properly trained in their use, inspection, care, maintenance, and fitting testing pursuant to their written Respirator Plan.

Protective Clothing and Equipment

Required protective clothing and equipment, such as coveralls or similar whole-body clothing, head covering, gloves, eye protection, and foot coverings, for any employee potentially exposed to airborne concentrations of asbestos will be provided by all contractors. Protective clothing is disposable and will be disposed of upon decontamination. All contractors will provide hard hats, safety shoes, and other safety equipment required to complete the project scope in a safe and protective manner and as required by all applicable safety regulations.

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Exposure Air Monitoring

AES and GWP are responsible for collecting personnel exposure air monitoring which is required during this project to accurately determine the airborne concentrations of hazardous material. Determinations are to be made from the operator's breathing zone (OBZ) that are representative of the 8-hour Time Weighted Average (TWA) and Short-Term Exposure Limit (STEL) (30-minute excursion).

SCOPE OF WORK

SPY Soil Stockpile Removal – Stockpile 120 & Stall 15

It is the intent of this work scope to remove all soil from stockpile and stall areas, minimizing the disturbance of asbestos containing material to the extent possible. AES will be responsible for the following: set-up of the regulated area, removal of asbestos containing materials (ACMs) and soil deemed contaminated, transferring of material to end dump, proper packaging and labeling of material for the transport and disposal of ACM. MPE will be responsible for the transport and disposal of the ACM to pre-selected landfill listed below. The estimated volume of soil to be removed is 840 Cubic Yards.

AOC-14

It is the intent of this work scope to remove all soil within the TAA boundary, minimizing the disturbance of asbestos containing material to the extent possible. Extent of excavation will be confirmed by Jacobs. AES will be responsible for the following: set-up of the regulated area, proper packaging and labeling of material for the transport and disposal of ACM. GWP will be responsible for removal of soil deemed contaminated by asbestos containing materials (ACMs) and transferring of material to end dump. MPE will be responsible for the transport and disposal of the ACM to pre-selected landfill listed below. The estimated volume of soil to be removed is 800 Cubic Yards.

ASBESTOS DEBRIS AND SOIL REMOVAL

Asbestos containing materials will be removed in accordance with federal, state, and local regulations. Friable and non-friable materials will be removed in accordance with Class I and Class II asbestos removal requirements set forth in CAL-OSHA Department of Occupational Safety and Health (DOSH) 1529 regulations, where applicable. All personnel who will be entering the work area will need proper equipment, certifications including training, fit tests, and approved medicals. All documentation will be provided to the independent third-party consultant prior to start of work and copies will be kept on site.

A regulated area will be set up delineating the work area and will be large enough to maintain a safe distance from the work activities as not to create exposure to others. A decontamination area will be provided using 6-mil polyethylene sheeting and poly bags used to collect disposed PPE. Asbestos Warning and Danger Signs will be posted at all possible entry locations. Signs will indicate the types of hazards present such as asbestos, etc. Additionally, signs will indicate applicable personal protective requirements required inside the work area. The asbestos competent person will visually inspect the regulated area at the beginning and end of each work period. At regulated project sites, Contractor shall use caution tape to demarcate the boundary of the Work zone, and post warning signs. The required signage by Title 8 CCR 1529 should read:

DANGER
ASBESTOS
MAY CAUSE CANCER
CAUSES CANCER TO LUNGS
AUTHORIZED PERSONNEL ONLY
WEAR RESPIRATORY PROTECTION AND PROTECTIVE CLOTHING IN THIS AREA

AES will utilize GWP to perform the earthwork including operation of an excavator to transfer contaminated soil into an end dump truck which is double lined with 6-mil polyethylene plastic and properly labeled. All materials disturbed and to be removed will be kept adequately wet with amended water prior, during and after the excavation and removal process. If additional ACM material or debris is encountered, material will be double bagged using 6-mil polyethylene bags, with the outer bag being "goose necked". The outer bag containing friable ACM will be an asbestos labeled bag. Sealed bags or wrapped material will be placed within the fully lined disposal container. Once the end dump truck is full, the material will be wrapped, and the two (2) layers of 6 mil polyethylene plastic sheeting individually sealed with duct tape prior to transport. At the completion of the day, stockpiles and/or exposed material will be wetted and covered with polyethylene sheeting.

Upon completion of the removal, the area will be visually inspected for completeness of work by the contractor competent person and third-party industrial hygienist. All equipment and tools will be properly decontaminated prior to removal from site.

WASTE MANAGEMENT

AES will properly containerize all RCRA, non-RCRA, Hazardous and Non-hazardous wastes streams generated during removal. MPE will obtain waste profile, provide manifests, and utilize current contracts with approved waste disposal facilities to dispose of generated waste. The waste profile and any other requested documentation will be provided to PG&E/Jacobs for review prior to submitting to approved landfill. Shipment of hazardous waste shall be transported by a California Department of Toxic Substances Control (DTSC) licensed hazardous waste hauler, accompanied by a hazardous waste manifest, and sent to facilities licensed to accept asbestos hazardous waste.

The waste will be disposed at the following landfill:

Waste Disposal Site – Republic Services' La Paz County Landfill
26999 Hwy 95, Mile Post 128, Parker, AZ 85344

The third-party industrial hygienist will inspect containers for proper content labels, hazardous properties and accumulation start dates, where applicable.

This plan has been written and approved by:



Prepared by Matt Michaelian, CIH, CAC
ABIH Certification No.: 11012
DOSH Certification No.: 16-5628

Appendix C
Geophysical and Land Survey Reports

Appendix C. Geophysical and Land Survey Report

Soil NTCRA Completion Report

Topock Compressor Station, Needles, California

App #	Completion Report Text Section	Documentation Title
C-1	2.1.6	Figure 1 Site Map with Geophysical Interpretation (Northern BCW)
C-2	2.1.6	Figure 2 Site Map with Geophysical Interpretation (Southern BCW)
C-3	2.1.6	Figure 3 Site Map with Geophysical Interpretation (East of TCS)
C-4	2.1.6	Figure 4 AOC10 TAA1 Utilities
C-5	2.1.7	Pre-Construction Topographic Survey (AOC 9, AOC 10, and AOC 11)
C-6	2.1.7	Pre-Construction Topographic Survey (SWMU 1, AOC 1, and AOC 27 Wash)
C-7	2.1.7	Post-Construction Topographic Survey (East Ravine)
C-8	2.1.7	Post-Construction Topographic Survey (AOC11 TAA1)
C-9	2.1.7	Post-Construction Topographic Survey (AOC9 and 10 TAA1)
C-10	2.1.7	Post-Construction Topographic Survey (AOC1-1, AOC27, AOC1-3, SWMU1-1, SWMU1-2)
C-11	2.1.7	Post-Construction Topographic Survey (AOC1-1, AOC27, AOC1-3, SWMU1-1, SWMU1-2)

= number

AOC = area of concern

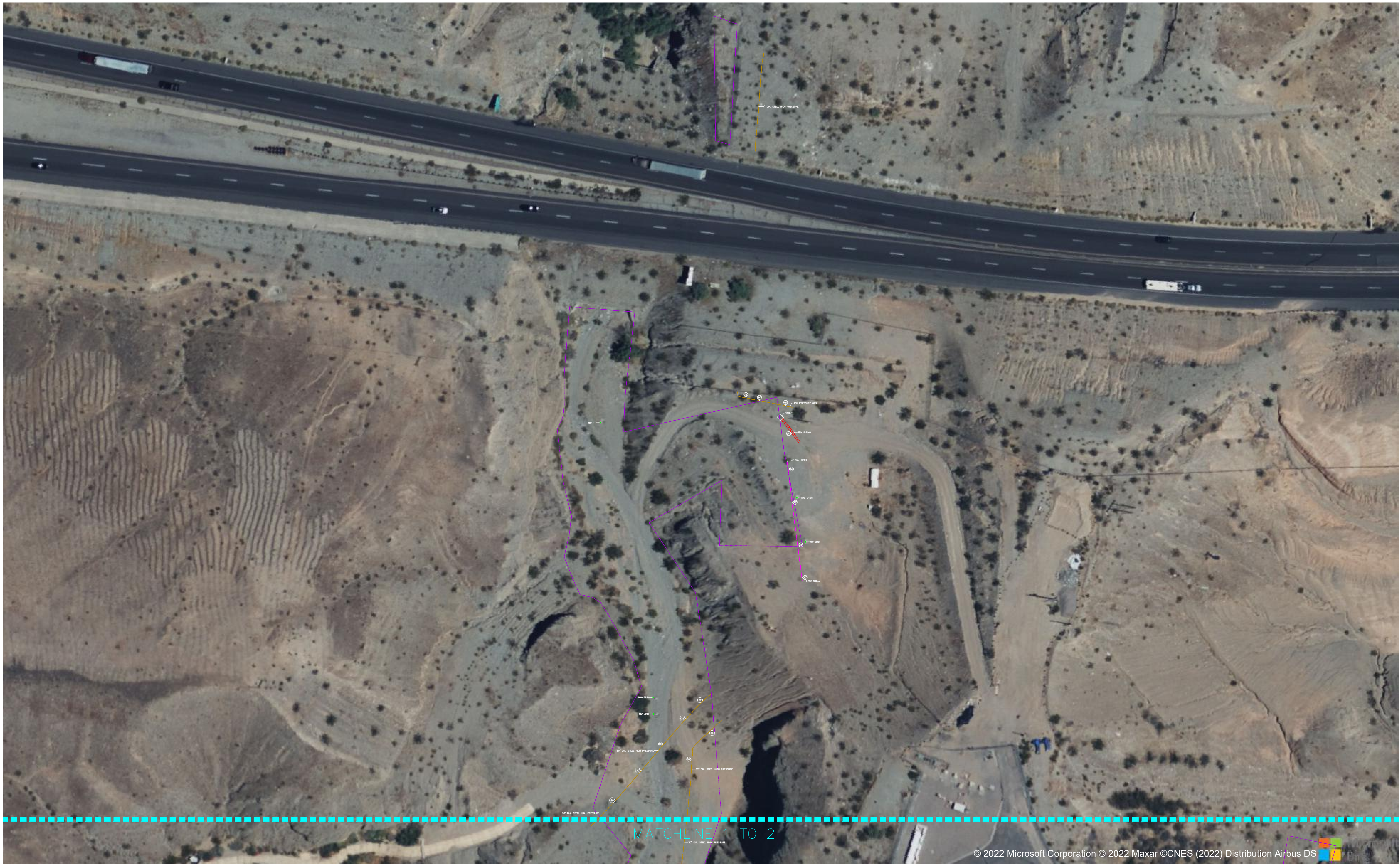
BCW = Bat Cave Wash

NTCRA = non-time-critical removal action

SWMU = solid waste management unit

TAA = target action area

TCS = Topock Compressor Station



MATCHLINE 1 TO 2

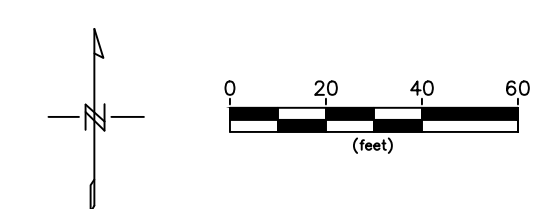
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- LEGEND**
- = BOUNDARY OF GEOPHYSICAL SURVEY
 - NG = HIGH PRESSURE NATURAL GAS
 - L = UNKNOWN
 - = MONITORING WELL

ZZZ E = ELECTRIC TRENCH

NOTE: UTILITIES IN CALIFORNIA STATE PLANE NAD 83, ZONE 0405 (US SURVEY FEET)

10' = APPROXIMATE DEPTH (+/- 10%) BELOW GROUND SURFACE TO TOP OF PIPE AT THIS LOCATION (SD AND SS INVERT DEPTH).



NOTE: All the geophysical methods have limitations dependent on instrumentation used, soil conditions, and local cultural noise and other interference. The interpretation of geophysical conditions presented above comprises a declaration of the geophysicist's professional judgement using methods and a degree of care and skill ordinarily exercised, under similar circumstances, by reputable members of their profession practicing in the same or similar locality. It does not constitute a warranty or guarantee, expressed or implied, nor does it relieve any other party of its responsibility to abide by contract documents, applicable codes, standards, regulations or ordinances. If you require further information about the limitations of the instruments and/or methods used on this project please contact GEOVision Geophysical Services.

	FIGURE 1	
	SITE MAP WITH GEOPHYSICAL INTERPRETATION	
	PG&E TOPOCK SITE	
	NEEDLES, CA	
	PREPARED FOR JACOBS	
Project No.	22284	
Date	Nov. 28, 2022	
Developed by	E. VASQUEZ	
Drawn by	S. ORTEGA	
Approved by	M. RICHES P.G.P.	
File Name	012284\22284-1.dwg	

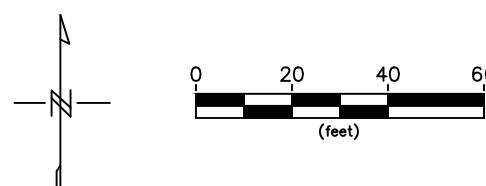


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LEGEND
 --- = BOUNDARY OF GEOPHYSICAL SURVEY
 --- = HIGH PRESSURE NATURAL GAS
 ● = MONITORING WELL

--- C-E = DATA AND ELECTRIC TRENCH
 --- W = WATER TRENCH

NOTE: UTILITES IN CALIFORNIA STATE PLANE NAD 83, ZONE 0405 (US SURVEY FEET)
 (SD) = APPROXIMATE DEPTH (+/- 10%) BELOW GROUND SURFACE TO TOP OF PIPE AT THIS LOCATION (SD AND SS INVERT DEPTH).



NOTE: All the geophysical methods have limitations dependent on instrumentation used, soil conditions, and local cultural noise and other interference. The interpretation of geophysical conditions presented above comprises a declaration of the geophysicist's professional judgement using methods and a degree of care and skill ordinarily exercised, under similar circumstances, by reputable members of their profession practicing in the same or similar locality. It does not constitute a warranty or guarantee, expressed or implied, nor does it relieve any other party of its responsibility to abide by contract documents, applicable codes, standards, regulations or ordinances. If you require further information about the limitations of the instruments and/or methods used on this project please contact GEOVision Geophysical Services.

	FIGURE 2 SITE MAP WITH GEOPHYSICAL INTERPRETATION
	PG&E TOPOCK SITE NEEDLES, CA
	PREPARED FOR JACOBS
	Project No. 22284 Date Nov 28, 2022 Developed by E. VASQUEZ Drawn by S. ORTEGA Approved by M. RICHES P.G.P. File Name: G:\22284\22284-1.dwg



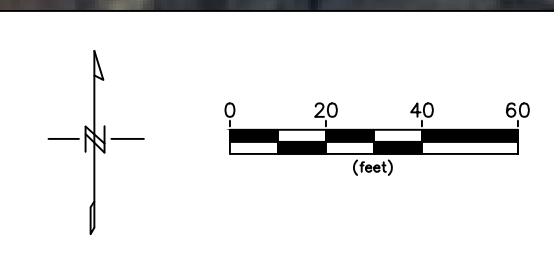
LEGEND

- = BOUNDARY OF GEOPHYSICAL SURVEY
- E-E- = ELECTRIC
- D-D- = DATA
- L-L- = UNKNOWN
- = MONITORING WELL

- Z-Z-Z- C-E = DATA AND ELECTRIC TRENCH
- Z-Z-Z- W = WATER TRENCH

NOTE: UTILITES IN CALIFORNIA STATE PLANE NAD 83, ZONE 0405 (US SURVEY FEET)

= APPROXIMATE DEPTH (+/- 10%) BELOW GROUND SURFACE TO TOP OF PIPE AT THIS LOCATION (SD AND SS INVERT DEPTH).



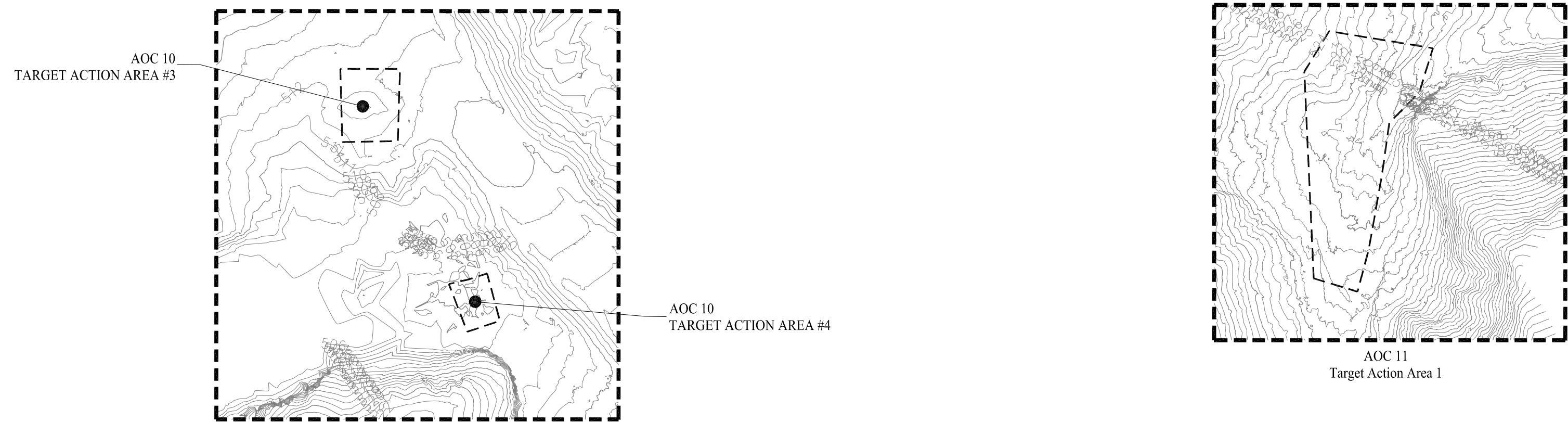
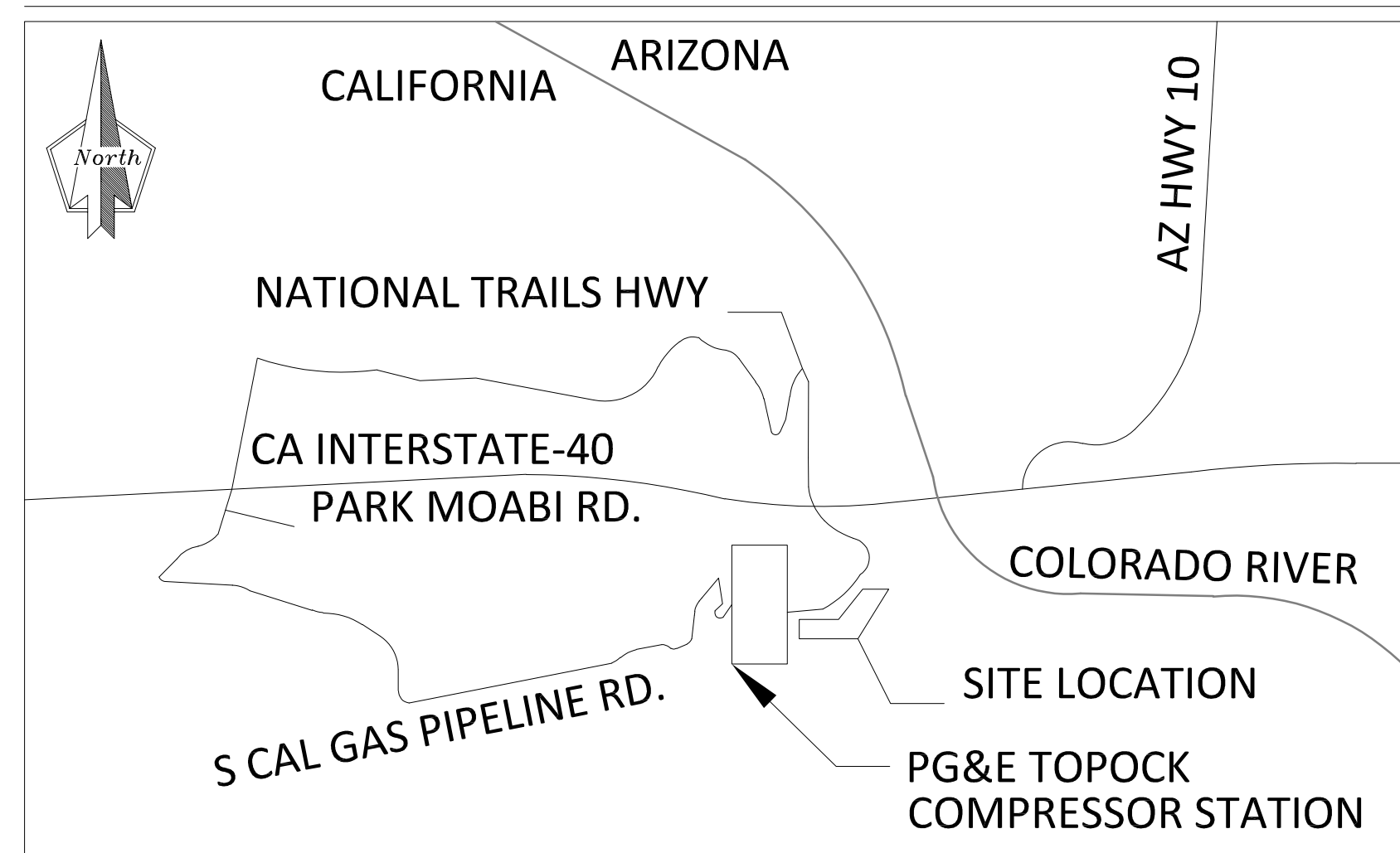
NOTE: All the geophysical methods have limitations dependent on instrumentation used, soil conditions, and local cultural noise and other interference. The interpretation of geophysical conditions presented above comprises a declaration of the geophysicist's professional judgement using methods and a degree of care and skill ordinarily exercised, under similar circumstances, by reputable members of their profession practicing in the same or similar locality. It does not constitute a warranty or guarantee, expressed or implied, nor does it relieve any other party of its responsibility to abide by contract documents, applicable codes, standards, regulations or ordinances. If you require further information about the limitations of the instruments and/or methods used on this project please contact GEOVision Geophysical Services.

GEOVision
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 Developed by E. VASQUEZ
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 File Name: G:\22284\22284-1.dwg

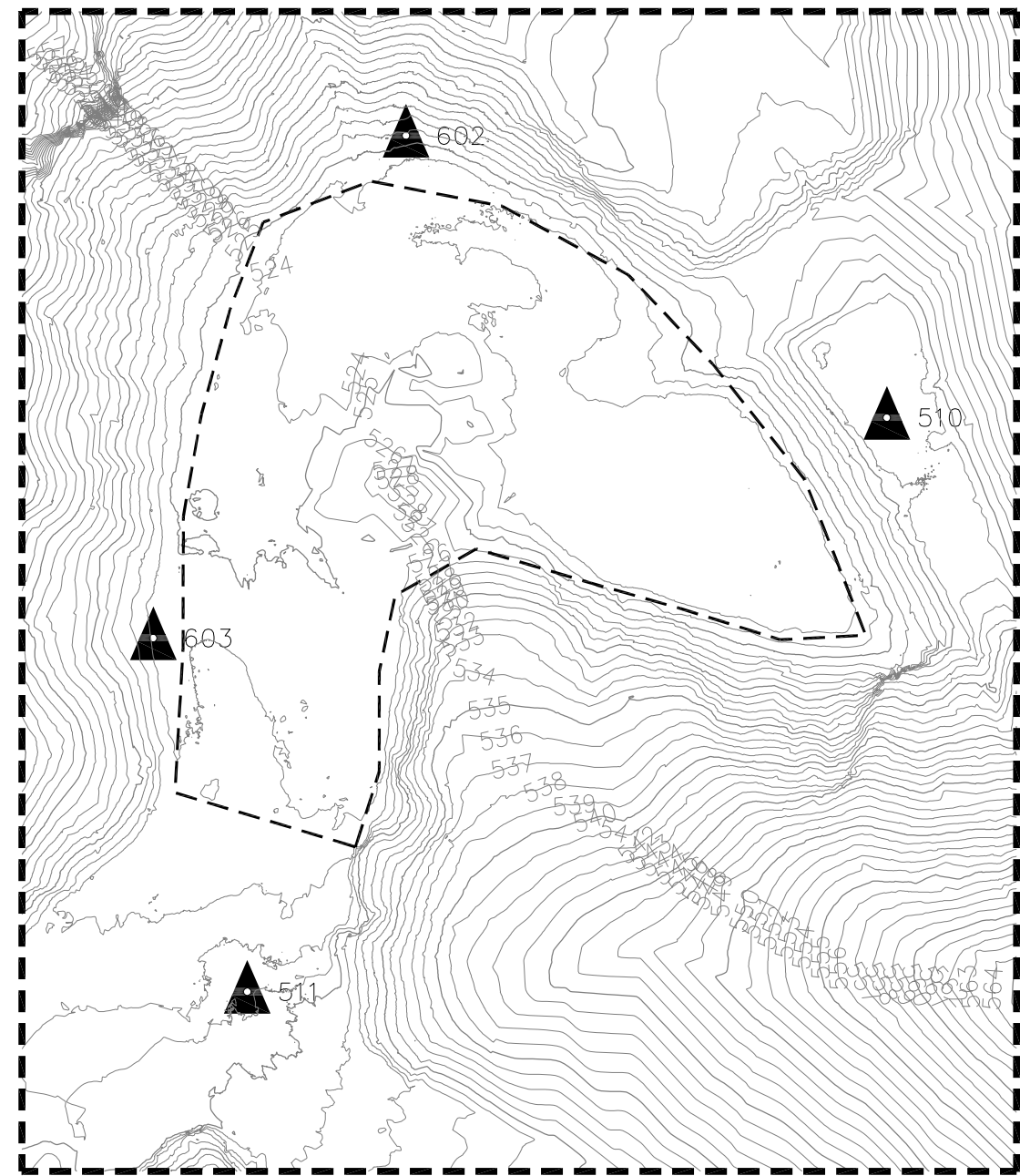
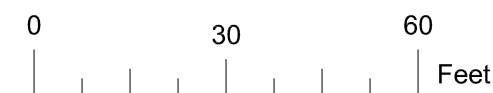
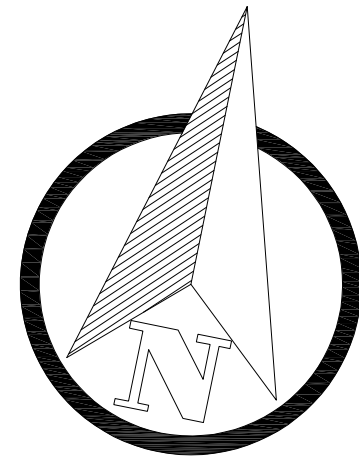
FIGURE 3
 SITE MAP WITH GEOPHYSICAL INTERPRETATION
 PG&E TOPOCK SITE
 NEEDLES, CA
 PREPARED FOR
 JACOBS



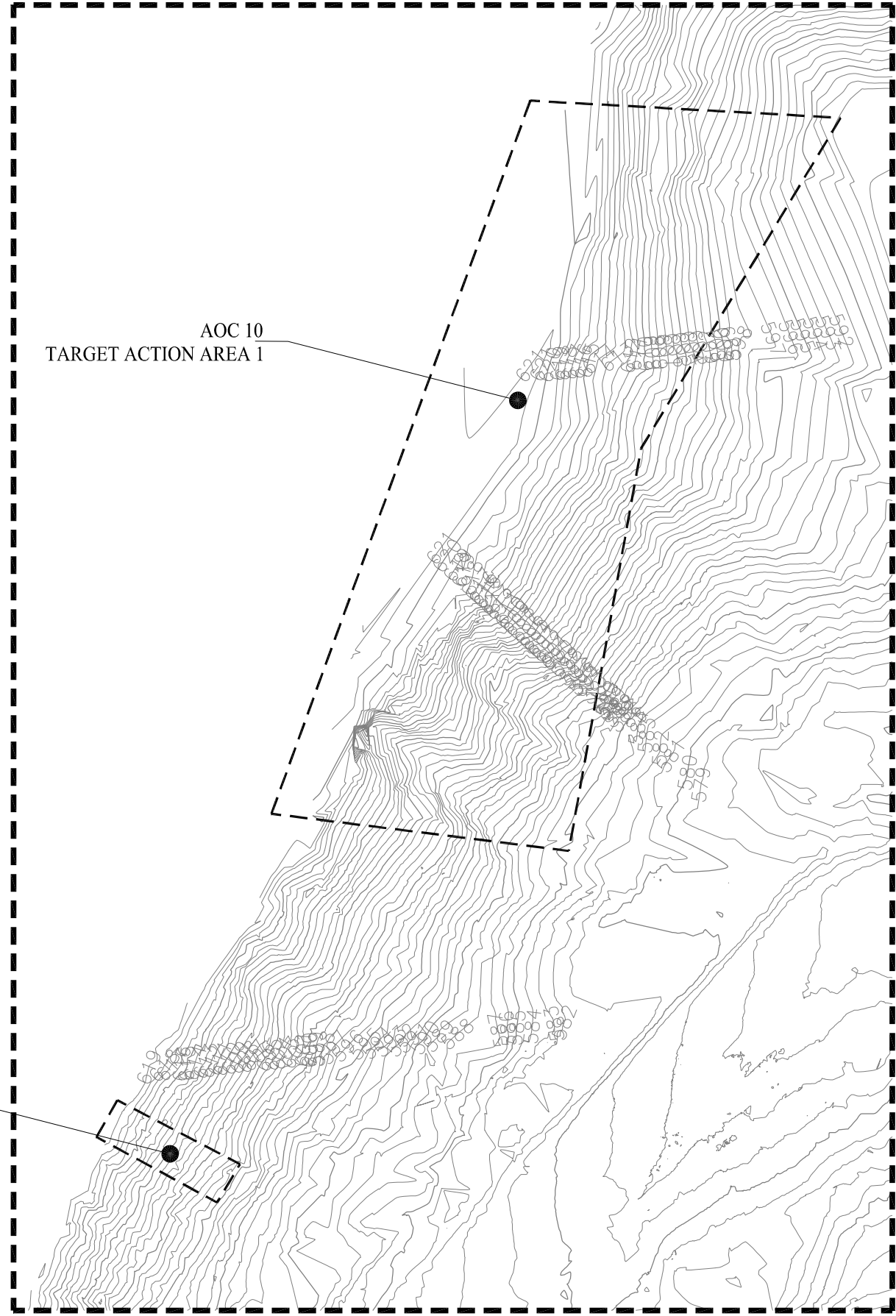
VICINITY MAP



HORIZONTAL DATUM
THE HORIZONTAL DATUM FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM (CCS83) ZONE 5 SAN BERNARDINO BASE & MERIDIAN.



AOC 10
TARGET ACTION AREA #2



AOC 10
TARGET ACTION AREA 1

AOC 9
TARGET ACTION AREA 1

UNITS: US SURVEY FEET
PROJECTION: CCS ZONE 5
HORIZONTAL: NAD 83
VERTICAL: NAVD 88

SURVEYOR'S STATEMENT:
THIS TOPOGRAPHIC MAP PREPARED BY ME OR UNDER MY DIRECTION AND IS BASED UPON A FIELD SURVEY COMPLETED ON JULY 2022.

Date: _____ AARON D. WILLIS LS 8881



UNDERGROUND SERVICE ALERT
CALL TOLL FREE:
1-800-227-2600
TWO WORKING DAYS BEFORE YOU DIG

REVISIONS	DATE	DESCRIPTION	APPROVED	DATE

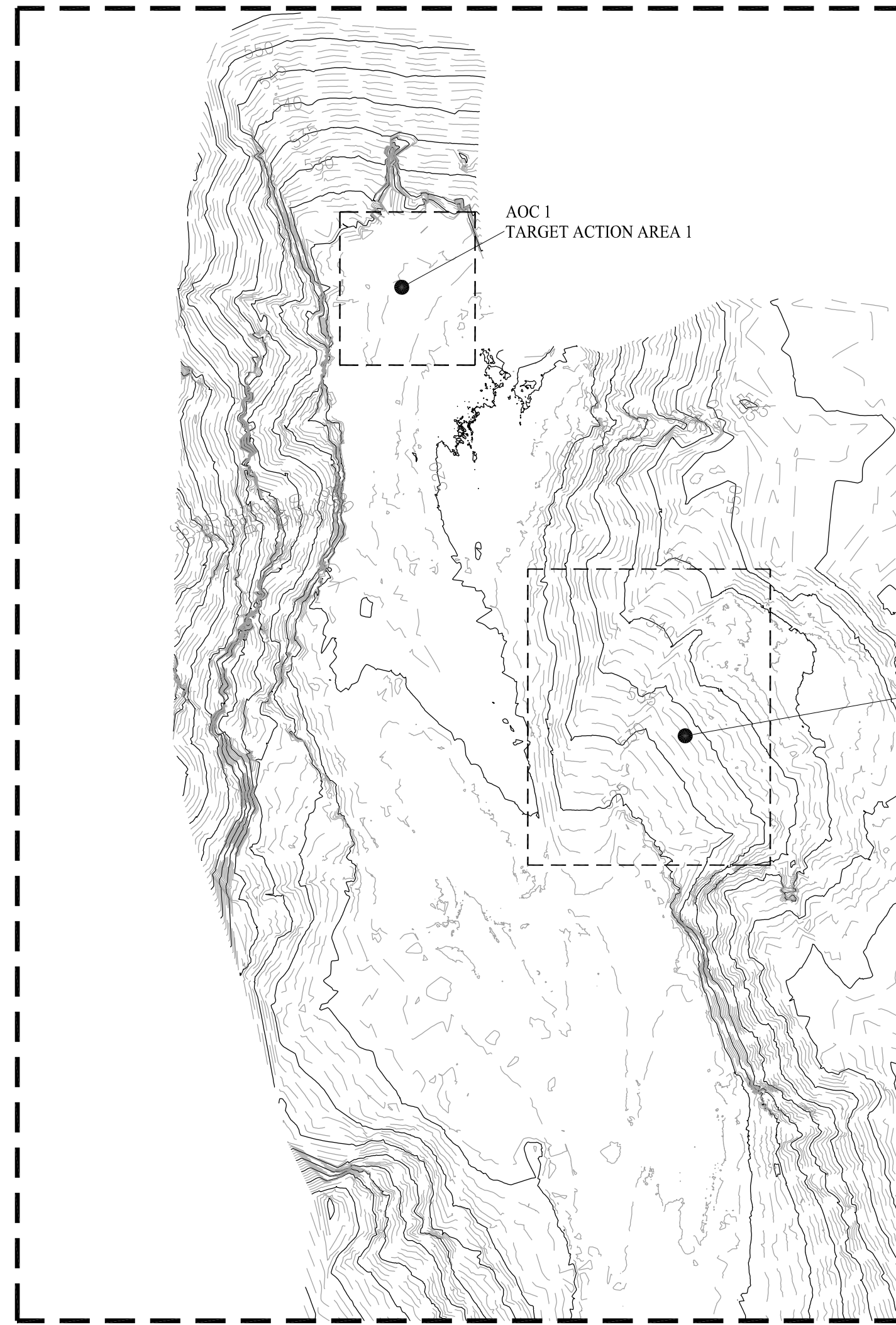
Jacobs
IRVINE OFFICE
2600 MICHELSON DR., STE 500
IRVINE, CA 92616
PHONE (949) 224-7901

Prepared by: GEORGE TYE
Date: NOVEMBER 2024

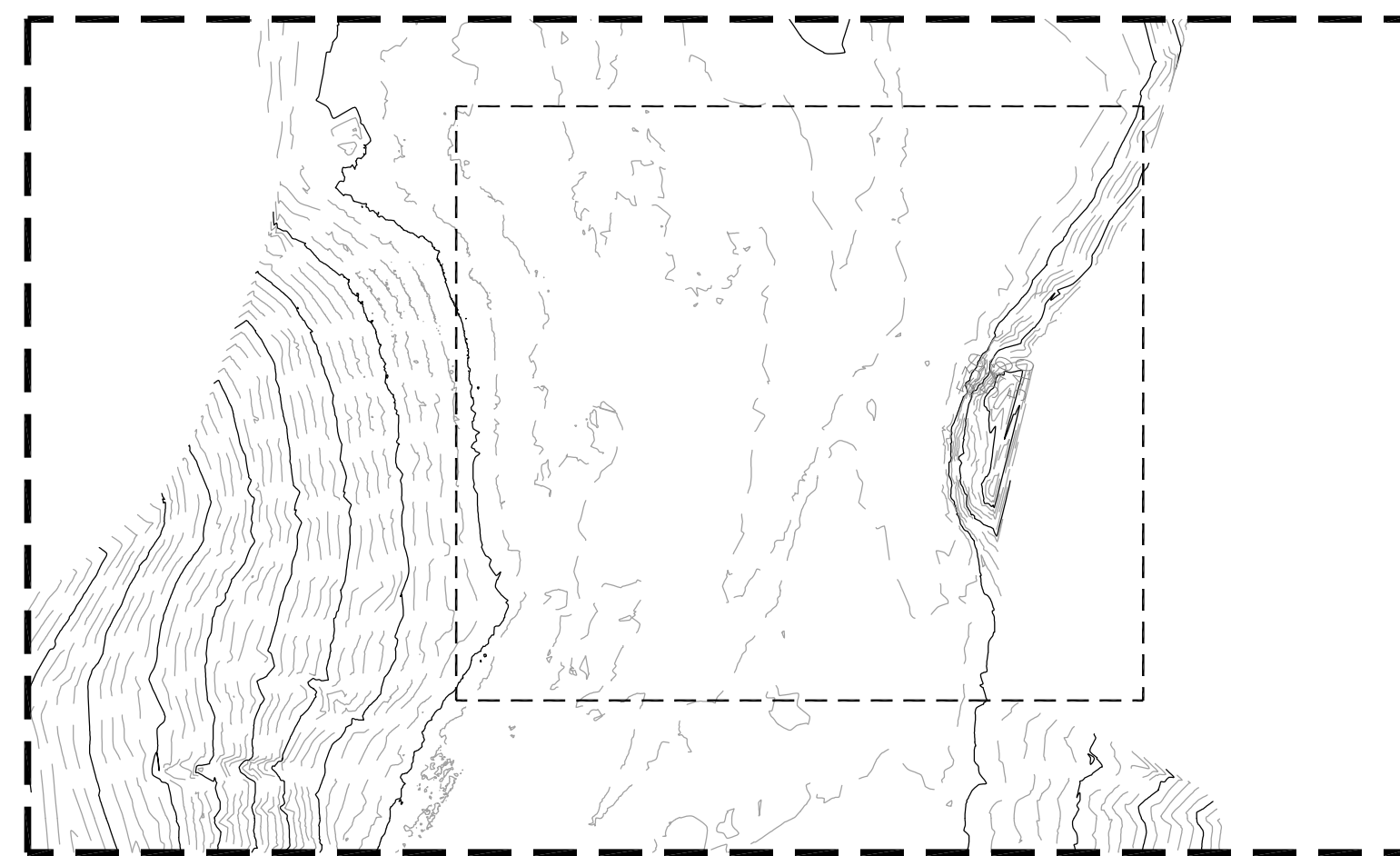
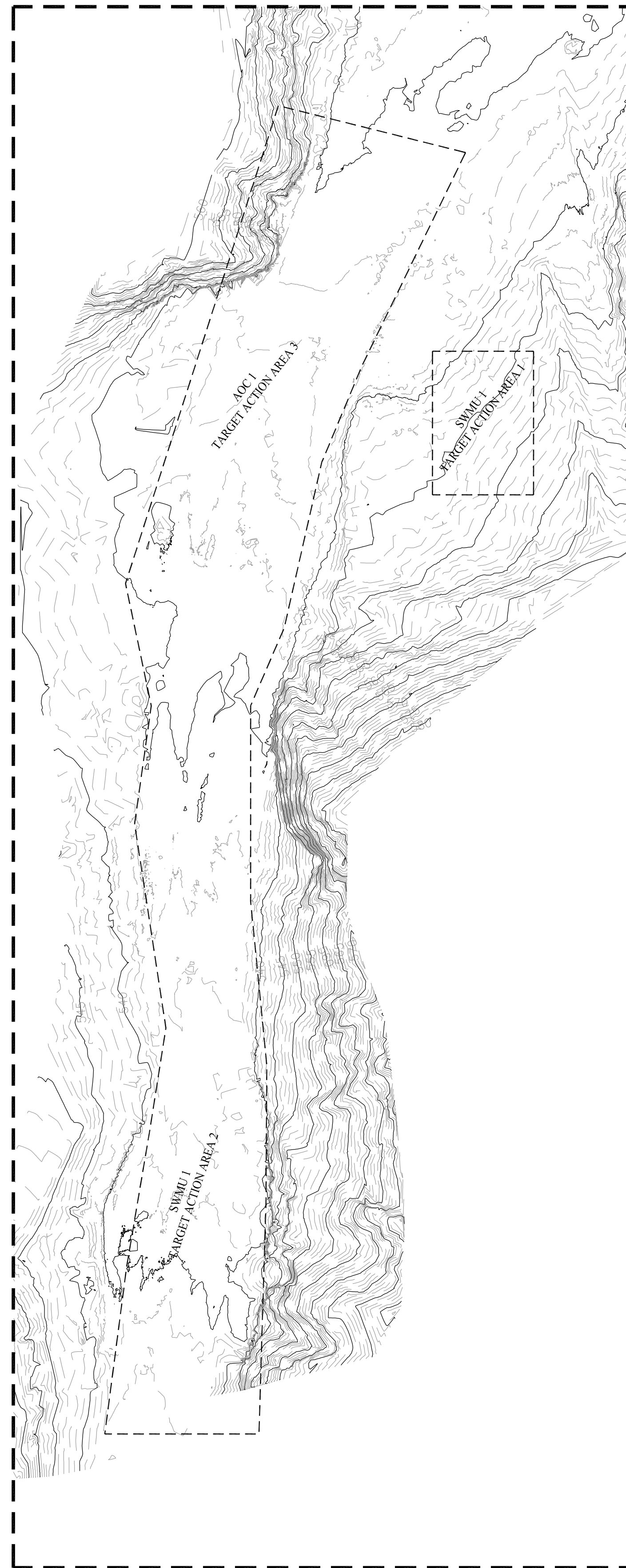
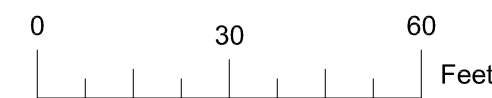
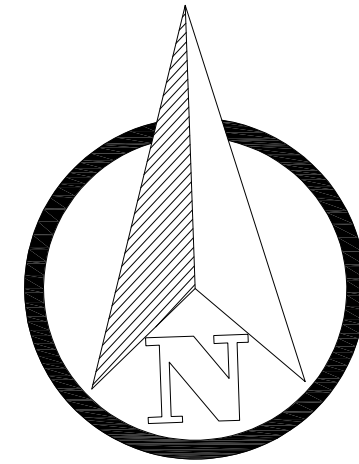
TOPOCK COMPRESSOR STATION
AOC 9, AOC 10, AND AOC 11
TOPOGRAPHIC SURVEY

PLOT DATE: Nov 01, 2024 - 9:34am By: TYEGA

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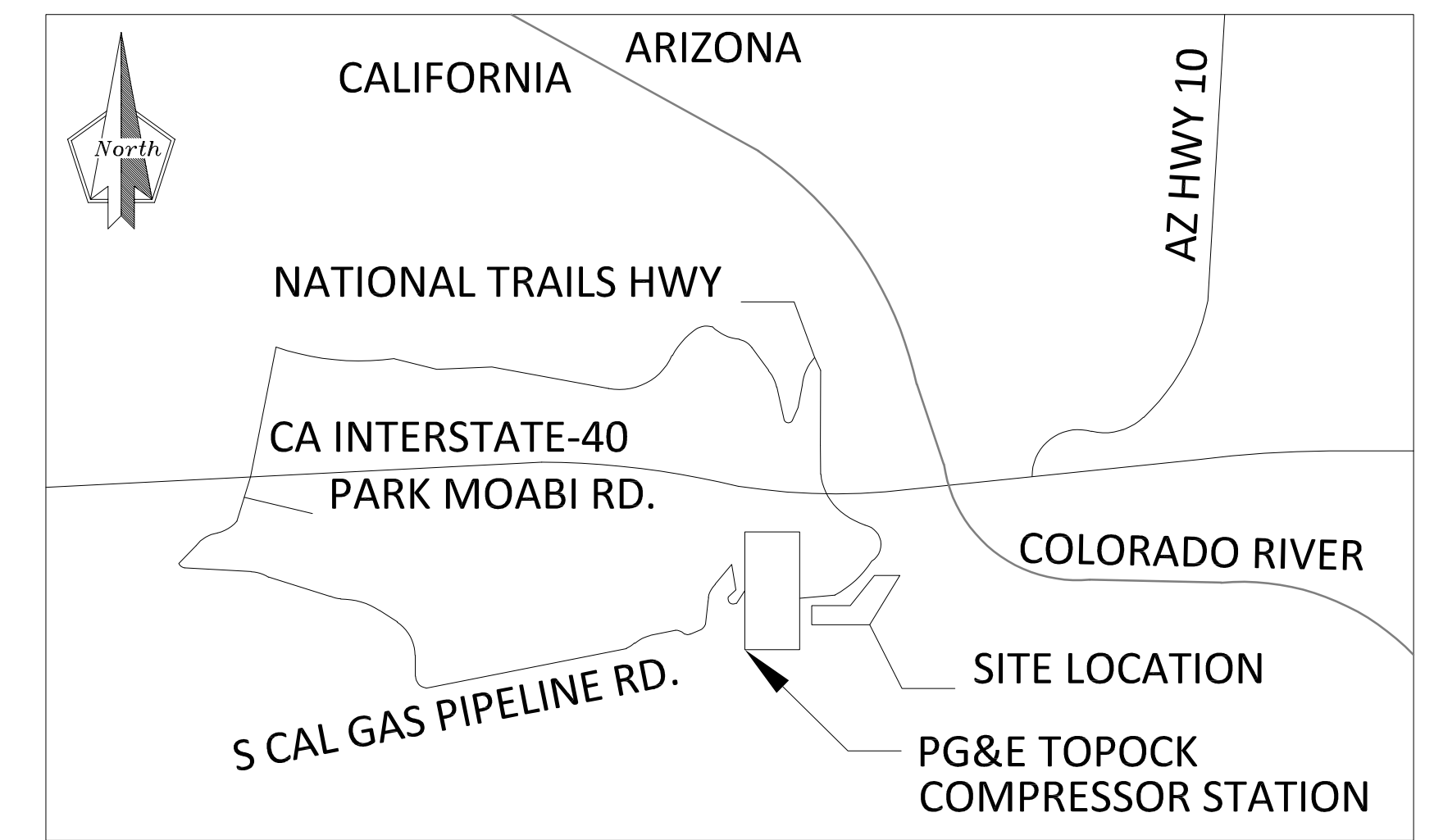


AOC 27
TARGET ACTION AREA 1



AOC 1
TARGET ACTION AREA 2

VICINITY MAP



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(CCS83) ZONE 5 SAN BERNARDINO BASE & MERIDIAN.

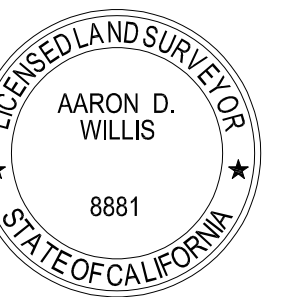
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UNITS: US SURVEY FEET
PROJECTION: CCS ZONE 5
HORIZONTAL: NAD 83
VERTICAL: NAVD 88

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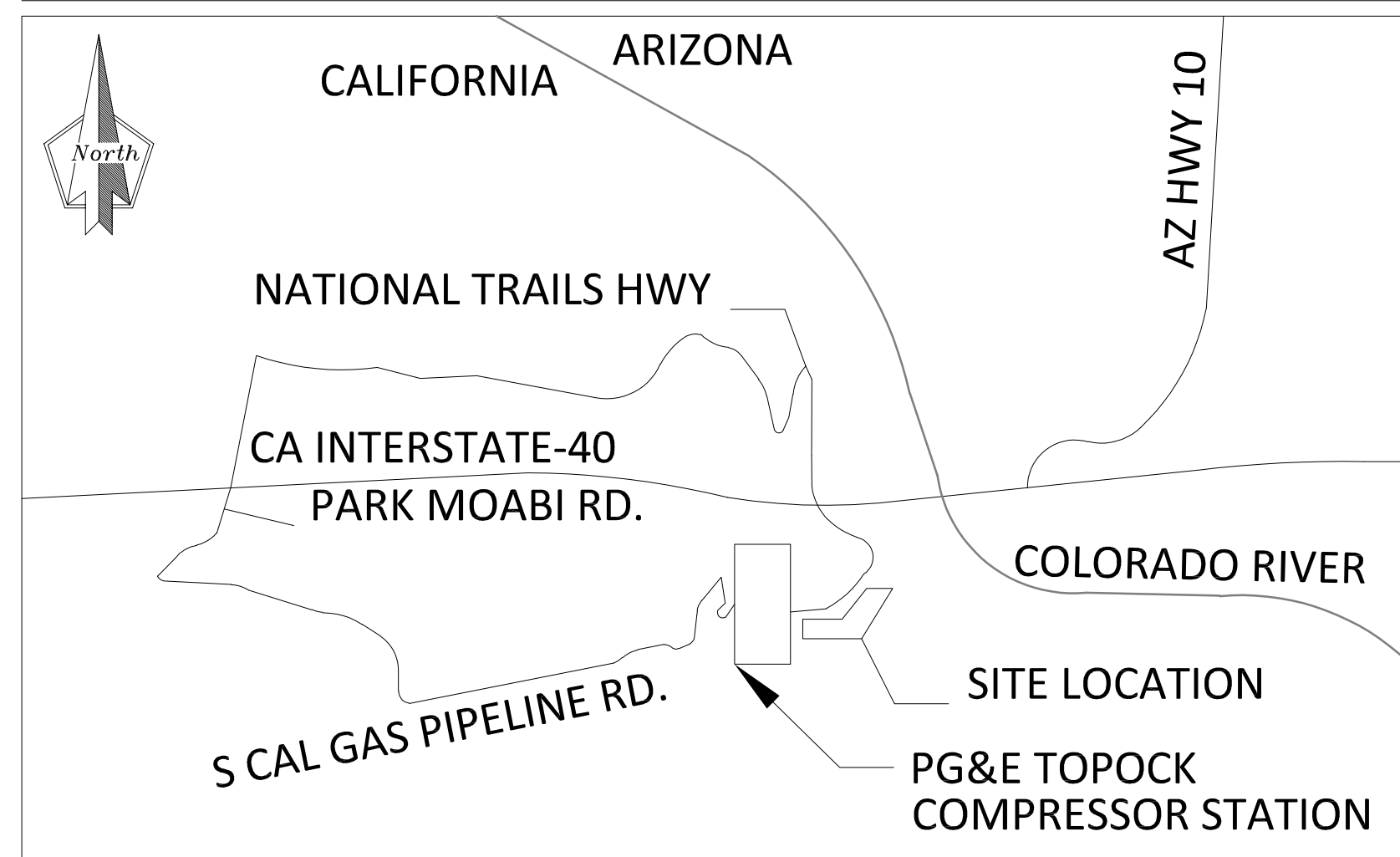
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Date: NOVEMBER 2024

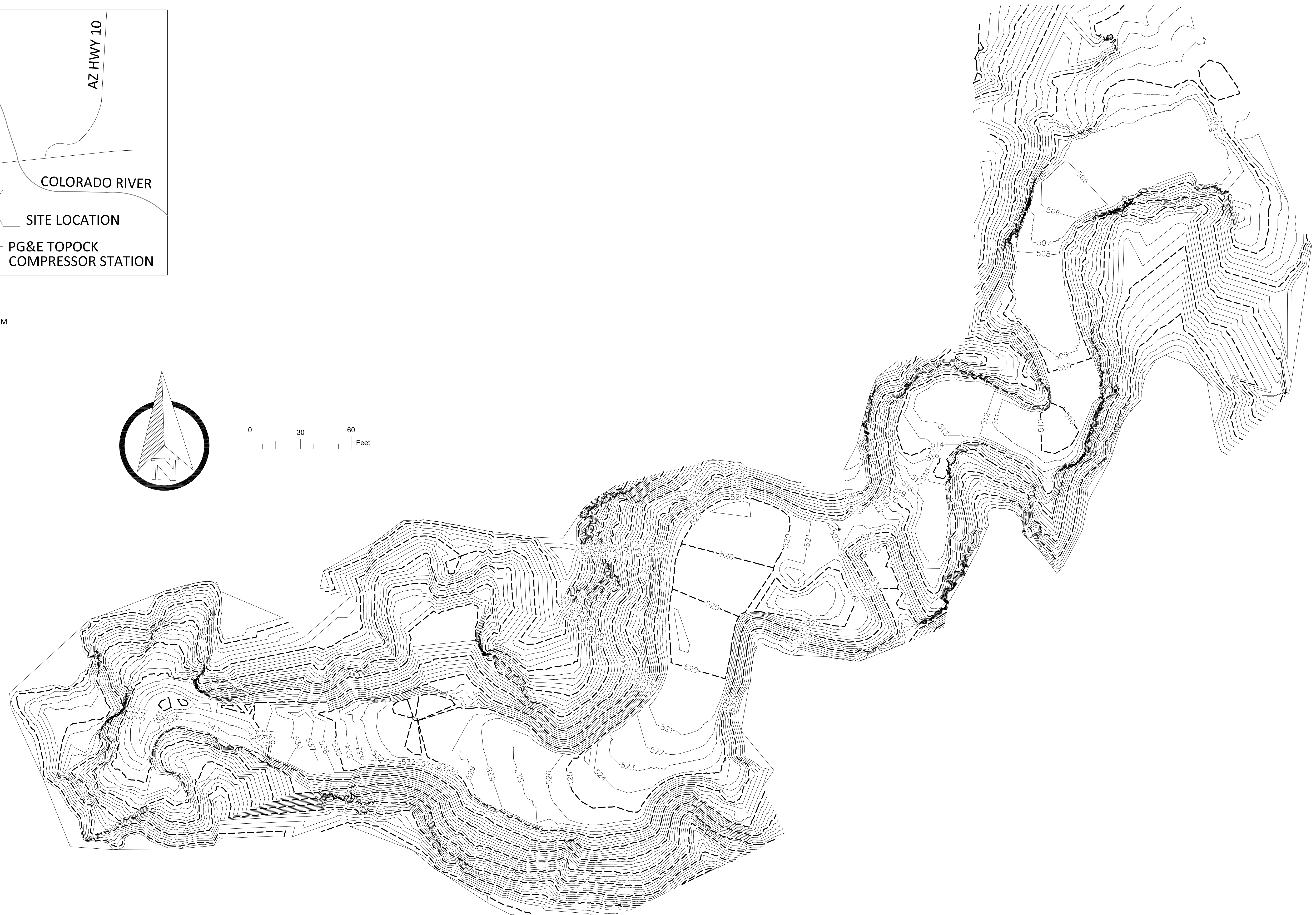
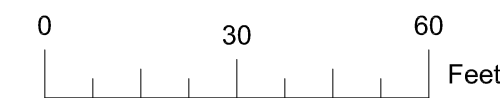
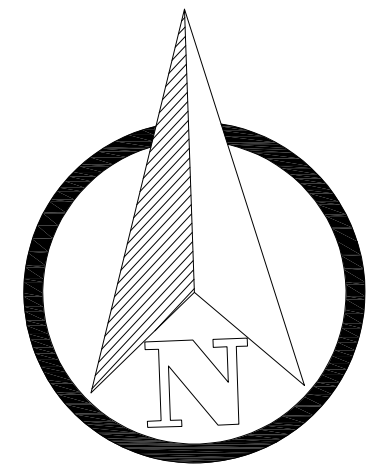
TOPOCK COMPRESSOR STATION
SWMU 1, AOC 1, AND AOC 27 WASH

TOPOGRAPHIC SURVEY

VICINITY MAP



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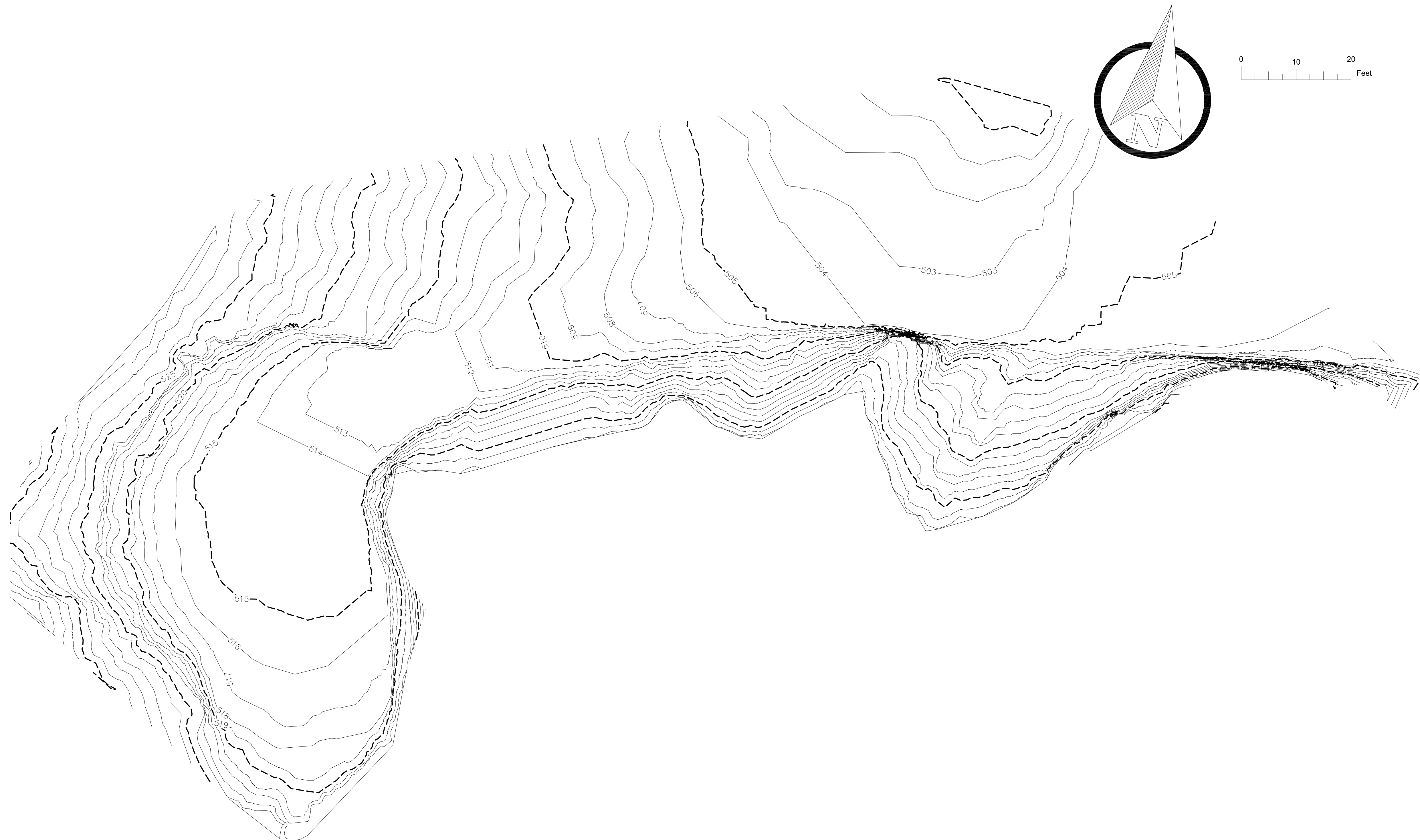
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TOPOCK COMPRESSOR STATION
 EAST RAVINE
TOPOGRAPHIC SURVEY

Project No. D31084AZ Drawing No. N/A Sheet 1 of 5



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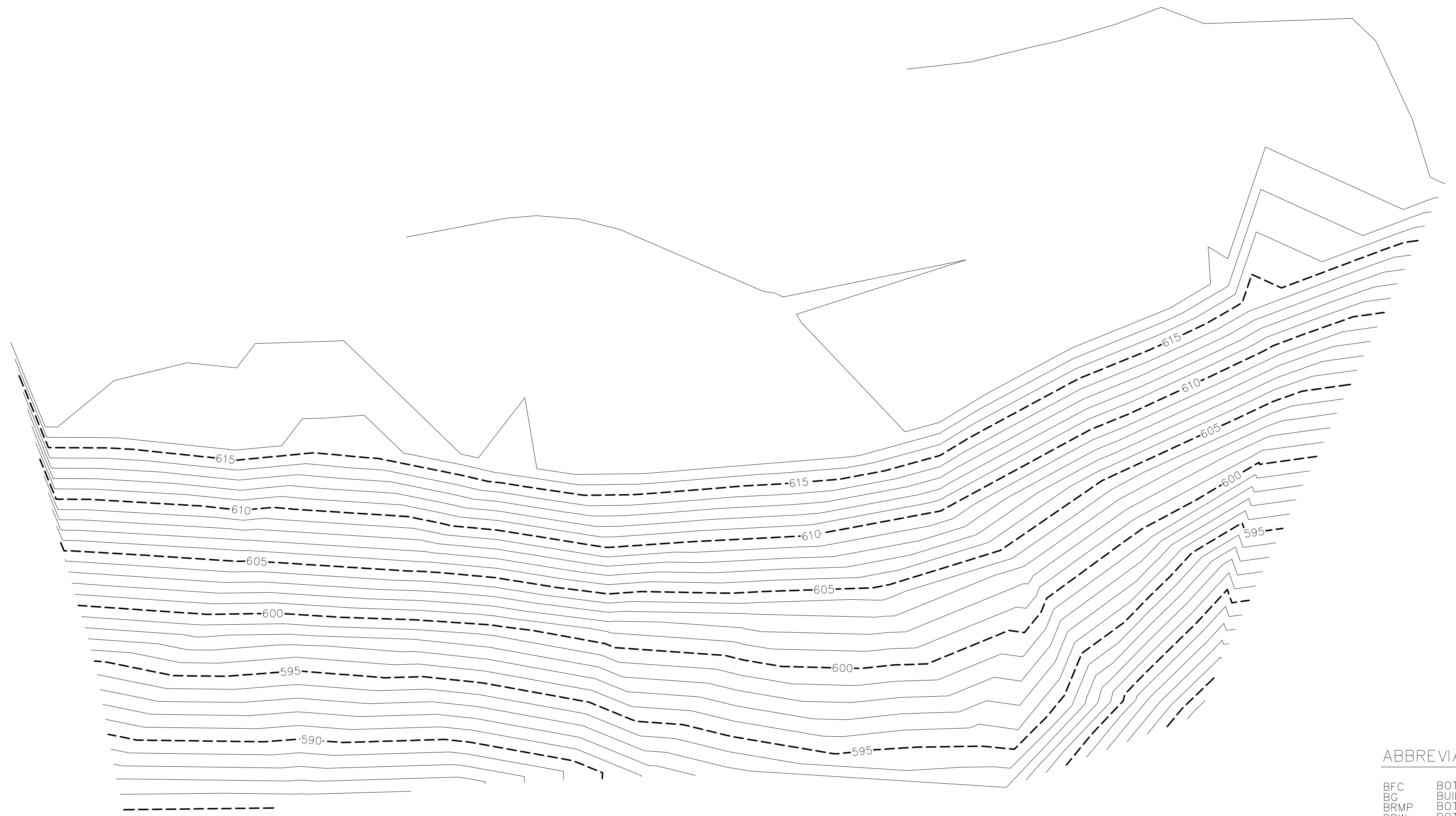
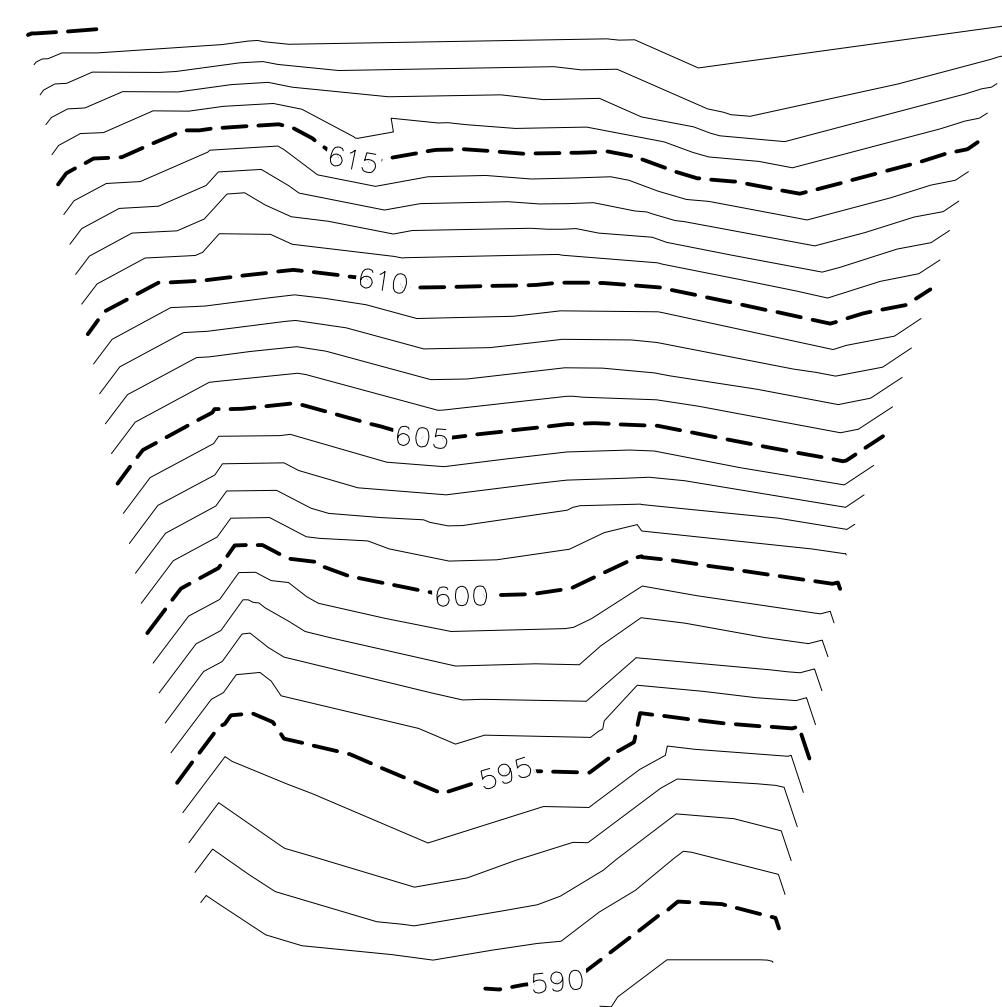
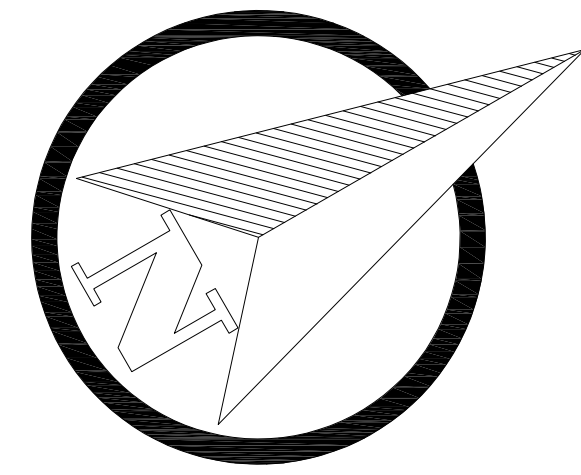
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TOPOCK COMPRESSOR STATION

AOC 11 TAA 1

TOPOGRAPHIC SURVEY

Project No. D31084AZ Drawing No. N/A Sheet 2 of 5



ABBREVIATIONS

BFC	BOTTOM FACE CURB
BG	BUILDING CORNER
BRMP	BOTTOM OF RAMP
BRW	BOTTOM OF RETAINING WALL
BST	BOTTOM OF STEP
DI	DRAIN INLET
EC	EDGE CONC
EP	EDGE PAVEMENT
FS	FINISHED SURFACE
INV	INVERT ELEV
MH	MANHOLE
OG	ORIGINAL GRADE
RDI	ROOF DRAIN INLET
SD	STORM DRAIN
SE	SLAB ELEV
TEMH	TOP ELEC MANHOLE
TFC	TOP FACE CURB
TLDK	TOP LOADING DOCK
TR	TOP OF RAMP
TRMP	TOP OF RAMP
TRW	TOP OF RETAINING WALL
TS	TOP OF SLAB
TST	TOP OF STEP
TTMH	TOP TELCO MANHOLE
TW	TOP OF WALL

UNITS: US SURVEY FEET
 PROJECTION: CCS ZONE 5
 HORIZONTAL: NAD 83
 VERTICAL: NAVD 88



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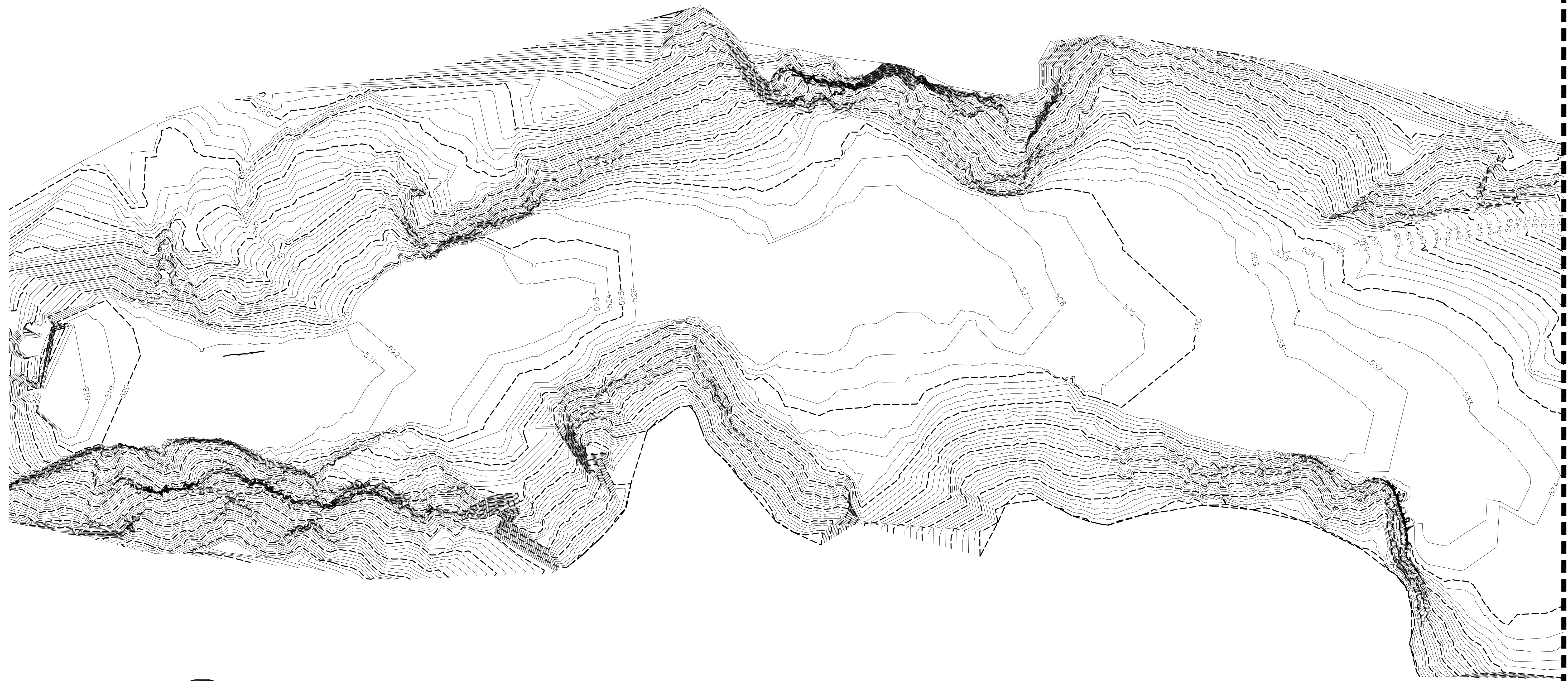
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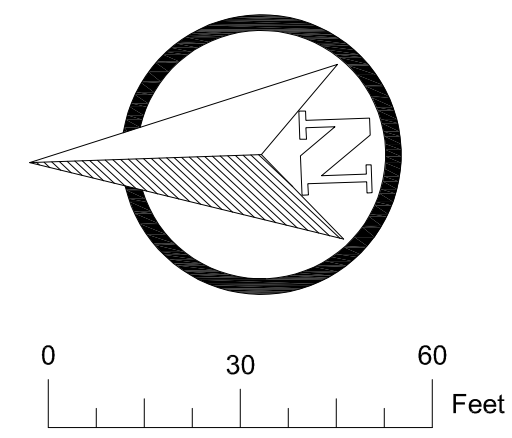
TOPOCK COMPRESSOR STATION

AOC 9 & 10 TAA 1

TOPOGRAPHIC SURVEY



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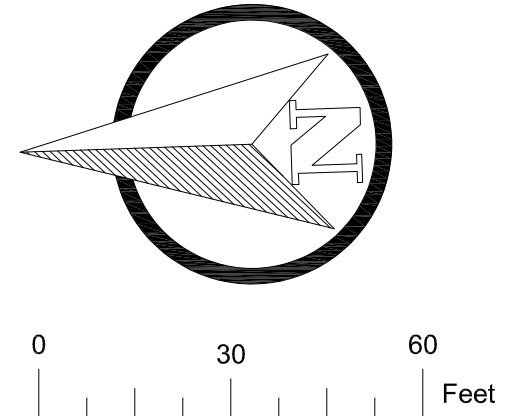
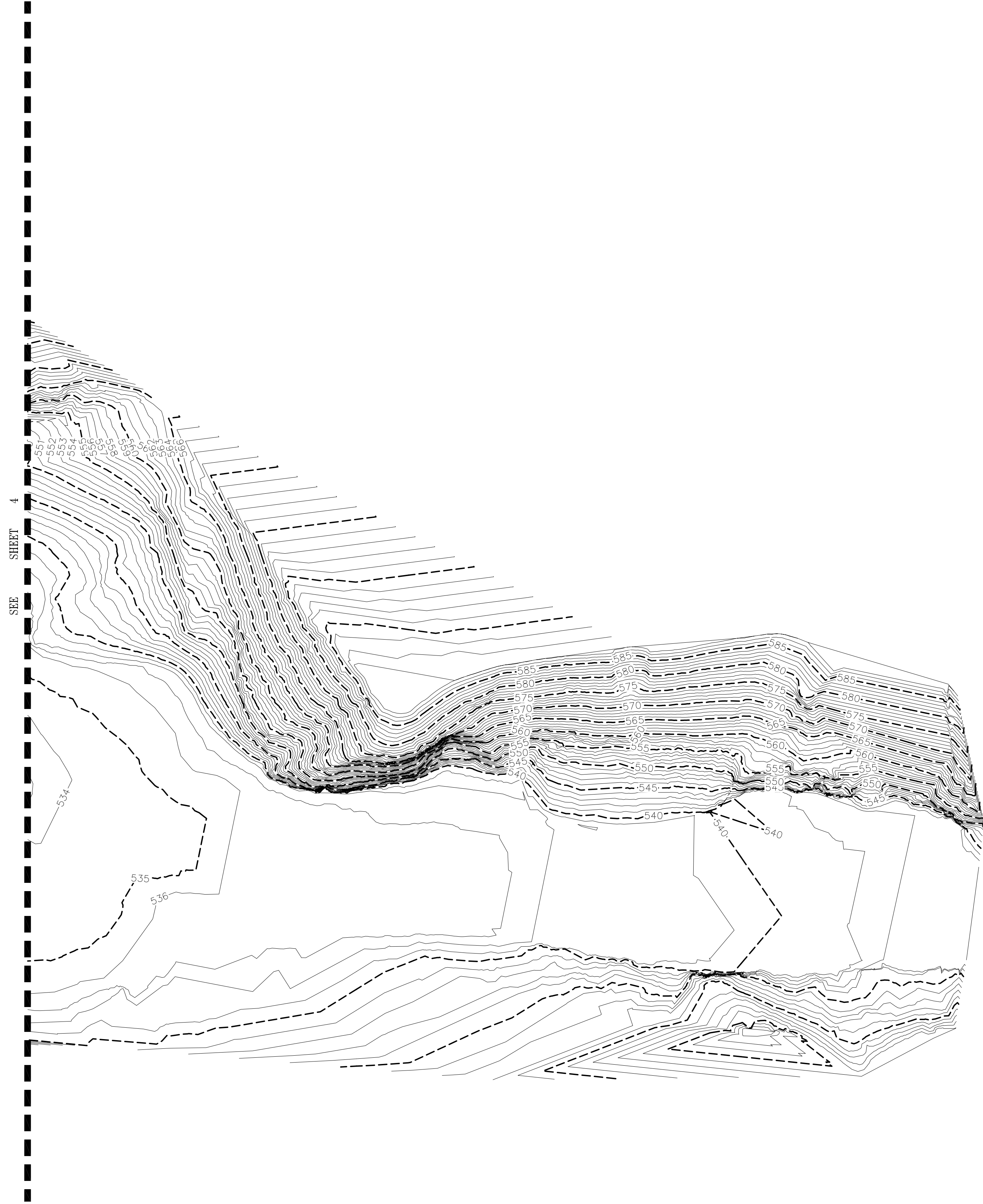
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Prepared by: GEORGE TYE
 Date: APRIL 2024

TOPOCK COMPRESSOR STATION
 AOC 1-1, AOC27, AOC1-2, AOC1-3, SWMU1-1, SWMU1-2

TOPOGRAPHIC SURVEY

AOC TOPOCK SITES 2024-03-03.dwg PLOT DATE: Apr 12, 2024 - 10:01am by: TYEGA



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TOPOCK COMPRESSOR STATION
 AOC 1-1, AOC27, AOC1-2, AOC1-3, SWMU1-1, SWMU1-2

TOPOGRAPHIC SURVEY

Project No. D31084AZ Drawing No. N/A Sheet 5 of 5

Appendix D
Environmental Compliance Documentation

Appendix D. Environmental Compliance Documentation

Soil NTCRA Completion Report

Topock Compressor Station, Needles, California

App #	Completion Report Text Section	Subject	Documentation Title
D-1	2.3.1/2.3.5	Biological Resources	<i>Soil Non-Time Critical Removal Action Biological Resources Completion Report (Jacobs 2024b)</i>
D-2	2.3.1/2.3.2/ 2.3.3/2.3.4/ 2.3.6	ARARs	Revised Tables 4-1 through 4-5
D-3	2.3.2	Air Monitoring	<i>Soil Non-Time Critical Removal Action (NTCRA) Air Monitoring Report</i>
D-4	2.3.5	Stormwater	2023-2024 Linear Underground/Overhead Project (LUP) Annual Report
D-5	2.3.6	Noise	<i>Noise Monitoring Summary Soil Non-Time Critical Removal Action (NTCRA)</i>

= number

ARARs = applicable relevant and appropriate requirements

LUP = linear underground/overhead project

NTCRA = non-time-critical removal action

TBD = to be determined

***D-1. Soil Non-Time Critical Removal Action
Biological Resources Completion Report
(Jacobs 2024b)***



Soil Non-Time Critical Removal Action Biological Resources Completion Report

Revision: 1

PG&E Topock Compressor Station, Needles, California
Pacific Gas and Electric Company

Document no: 240716153856_b220e53a

July 19, 2024



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Acronyms and Abbreviations

AB	aggregate base
AOC	Area of Concern
BA	Biological Assessment
BCW	Bat Cave Wash
BLM	Bureau of Land Management
BNSF	Burlington North Santa Fe
BOR	U.S. Bureau of Reclamation
Caltrans	California Department of Transportation
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
DETO	desert tortoise
DOI	Department of Interior
ESA	Endangered Species Act
FCR	Field Contact Representative
GCM	General Conservation Measures
GWP	Groundwater Partners
GW Remedy PBA	Groundwater Remedy Programmatic Biological Assessment
HNWR	Havasu National Wildlife Refuge
I-40	Interstate 40
NMGS	Northern Mexican garter snake
NTCRA	Non-Time Critical Removal Action
PAA	potential action areas
PG&E	Pacific Gas and Electric Company
RCRA	Resource Conservation and Recovery Act
RFI/RI	RCRA Facility Investigation/Remedial Investigation
SPY	soil processing yard
SWFL	Southwestern willow flycatcher
SWMU	Solid Waste Management Unit

Soil Non-Time Critical Removal Action Biological Resources Completion Report

TAA	target action areas
TCS	Topock Compressor Station
USFWS	U.S. Fish and Wildlife Service
WEAT	Worker Environmental Awareness Training
YBCU	Western yellow-billed cuckoo
YRR	Yuma Ridgway's rail

1. Introduction

Pacific Gas and Electric Company (PG&E) is addressing soil contaminant issues related to operations at the Topock Compressor Station (TCS) located in eastern San Bernardino County, California, approximately 12 miles southeast of Needles, California (Figure 1). PG&E is working under a voluntary consent agreement (agreement) with the Department of Toxic Substance Control and the U.S. Department of Interior (DOI), which follows corrective action processes under the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). In accordance with this agreement, PG&E has completed the environmental review process for soil contamination and soil removals within the TCS facilities and selected downgradient areas outside of the TCS fence line.

The Soil Non-Time Critical Removal Action (NTCRA) was authorized pursuant to the response action authority of CERCLA Section 104(a) as amended, 42 United States Code Section 9604(a). Pursuant to Executive Order 12580, as amended, Section 104 authority is delegated to the Secretary of the Interior to address the release or substantial threat of release of hazardous substances on or from a property under DOI's jurisdiction, custody, or control.

The soil medium, which is the focus of the Soil (NTCRA), is currently in the RCRA Facility Investigation/Remedial Investigation (RFI/RI) phase of the cleanup process. During the RFI/RI soil investigation and after receipt of the Soil Investigation Data Package, the U.S. Fish and Wildlife Service (USFWS) and DOI evaluated the RFI/RI soil investigation data and determined that there were specific areas outside of the TCS where concentrations of constituents of potential concern (COPCs) to humans and constituents of potential ecological concern significantly exceed background values or ecological and human health screening levels. These areas, referred to as potential action areas (PAAs) in the Engineering Evaluation/Cost Analysis, are located within or adjacent to active desert washes subject to potential scouring during rain events that could move contamination toward the Colorado River or spread the contamination footprint over a larger area (Jacobs, 2021a).

Because of this potential threat to public health and the environment, DOI directed PG&E via the 2021 Action Memorandum to conduct the Soil NTCRA to address contaminated soil in these PAAs, hereafter identified as target action areas (TAAs) (DOI, 2021). These locations were identified and evaluated in the NTCRA Engineering Analysis/Cost Analysis (Jacobs, 2021a) and the NTCRA Work Plan (Jacobs, 2022), where excavation and removal of the contaminated soil and debris was selected as the clean-up technology. After collaboration on the Soil NTCRA Work Plan from late 2021 to early 2022, the final Work Plan (Jacobs 2022) was approved by the DOI on June 27 (DOI 2022).

The environmental review process for the Soil NTCRA also included the preparation of a Biological Assessment (BA) (Jacobs 2021b) to determine any potential effects on species protected under the Federal Endangered Species Act (ESA) resulting from remedial and investigative activities at the Station, and to establish Avoidance and Minimization Measures to reduce or eliminate impacts to listed species. The USFWS concurred with the determinations provided in the NTCRA BA, as documented in their letter dated May 26, 2022 (USFWS 2022).

This Biological Resources Completion Report pertains to the Soil NTCRA whose field activities began on July 11, 2022 and were completed on May 20, 2024. This report has been prepared to comply with General Conservation Measure 22 of the Soil NTCRA BA, which states:

"Within 60 days of completion of construction activities, the FCR and biologist will prepare a brief report for the BLM documenting the effectiveness and practicality of the mitigation measure and making

recommendations for modifying the measures to enhance species protection, as appropriate. The report will also provide information on survey and monitoring activities, observed listed species if encountered, and the actual acreage disturbed by the activities, if any." (Jacobs 2021b).

1.1 Report Objectives and Organization

The purpose of this Biological Resources Completion Report is to document observations and project impacts and to assess the effectiveness of conservation measures outlined in the Soil NTCRA BA (Jacobs 2021b). In its May 26, 2022 letter, the USFWS concurred with the Soil NTCRA BA findings that the proposed activities at the Topock site 'may affect' but were 'not likely to adversely affect' the southwestern willow flycatcher (*Empidonax traillii extimus*), Yuma Ridgway's rail (*Rallus longirostris yumanensis*), and Agassiz's desert tortoise (*Gopherus agassizii*).

Based on the location and proposed activities, the Soil NTCRA BA concluded that there would be 'no effect' on other federal listed species including Western yellow-billed cuckoo (YBCU; *Coccyzus americanus occidentalis*), Northern Mexican gartersnake (NMGS; *Thamnopsis eques megalops*), razorback sucker (*Xyrauchen texanus*), and the bonytail chub (*Gila elegans*) and its critical habitat in the Colorado River.

This report contains a summary of NTCRA locations and construction activities that were started on July 11, 2022 and completed on May 20, 2024 (Section 2).

To comply with the requirements of the Soil NTCRA BA General Conservation Measure 22, this report contains:

- A table summarizing project compliance with each general conservation measure included in Section 2.4 of the BA. "Table A-1. Summary of Compliance with Soil NTCRA Biological Assessment (BA) Conservation Measures", in Appendix A (Section 3)
- Documentation of Worker Environmental Awareness Training (WEAT) (Section 4)
- Documentation of protocol/focused surveys, pre- and post-activity surveys, including the observed listed species and other special status species (Section 5)
- Documentation of avoidance and replacement of palo verde (*Parkinsonia florida*), mesquite, catclaw acacia (*Senegalia greggii*), smoketree (*Psoralea argophylla*), and cacti species (Section 6.1)
- Documentation of habitat avoidance, Action Area expansions and work area expansions (Section 6.2)
- Project disturbance and habitat impacts (Section 6.3)
- Photographic documentation of preconstruction habitat conditions (Section 6.4)
- Conclusions, including a discussion of the effectiveness of the general and species-specific measures and recommendations for modifying them to enhance protection of listed species (Section 7)

2. Summary of the Soil NTCRA Construction Activities and Locations

The following subsections summarize the Soil NTCRA project activities in general and followed by a description of actions at each location (Jacobs 2021b).

2.1 Project Activities

This subsection describes the target Soil NTCRA actions that were used to remove contaminated soil and debris from the TAAs. As described in the Soil NTCRA BA, mechanical excavation was the primary removal method used for this project. Standard-reach and long-reach excavators were used where practical. Manual collection and excavation of soils was used for surface soils (within 6 inches of surface) where the use of mechanical equipment was infeasible or unsafe.

The different activities for the Soil NTCRA included:

- Site preparation
- Soil excavation
- Confirmation sampling
- Mechanical separation
- Excavation backfill
- Waste transportation
- Waste disposal (fines or visibly contaminated coarse materials)
- Site restoration (regrading, slope stabilization, and revegetation)

Site preparation included mobilization and setup of support facilities including access routes, site surveys, vegetation removal, and establishment of soil erosion and sediment controls. Equipment and support facilities (e.g., excavators, loaders, storage containers, sanitary facilities, etc.) were mobilized to the Site and staged at approved locations. Utility clearance surveys, vegetation removal, and access routes were improved where necessary to provide access to the areas marked for excavation (Figures 3 and 4).

Grubbing of root systems associated with smaller vegetation was performed incidentally to the excavation of contaminated soil from the indicated areas. Vegetation removal was minimized to the practical extent needed to complete the removal action. Erosion and sediment control measures were established to ensure that soil disturbance activities do not adversely impact downgradient surface water bodies and floodplains. Throughout the removal action implementation, erosion and sediment controls were regularly inspected and maintained until excavation and backfilling were demonstrated to be complete.

Mechanical excavations were conducted in a precise manner to minimize disturbance to native material surrounding the target soil and debris and to prevent the spread of contaminated material outside of the TAA. Equipment remained outside of the TAA excavation, where possible, and the equipment bucket was not overloaded in order to avoid material falling from the bucket during placement in haul trucks. Excavation areas were also controlled to minimize wildlife entrapment. Excavated soil and debris were temporarily stockpiled within the TAA or transferred directly to haul trucks for transport to a waste management area.

In Bat Cave Wash (BCW), stockpiling of excavated material within the soil processing yard (SPY) was required prior to mechanical separation and final disposition of the separated materials. Stockpile areas were delineated with fencing, concrete K-rail barriers, or similar barrier. Soil processing and staging areas

are shown on Figure 2. Stockpiling was used for excavated soil and debris, coarse screened materials (>3/4 inch diameter); fine screened materials (<3/4 inch diameter); visibly contaminated materials. Trash, debris, burnt material, and discolored soil was stockpiled separately for offsite disposal without mechanical separation.

Coarse particles larger than 3/4 inch were separated, stockpiled, and returned to TAA excavations within BCW as backfill unless there was significant residual staining or colored encrustation. Material larger than 6-inch diameter generated during the initial screening in BCW may also have been placed on the surface of steeply sloped TAAs to reduce erosion. Coarse material with significant residual staining and fine material (material smaller than 3/4 inch) was collected for offsite disposal.

2.2 Locations with NTCRA Actions

The NTCRA addressed contamination the fourteen (15) TAAs identified by the USFWS and DOI, which are located within the following eight RFI/RI investigation areas as shown in Figures 3 and 4:

- Solid Waste Management Unit (SWMU) 1 – Former Percolation Bed (3 TAAs)
- Area of Concern (AOC) 1 – Area Around Former Percolation Bed (3 TAAs)
- AOC 9 – Southeast Fence Line (1 TAA)
- AOC 10 – East Ravine (4 TAAs)
- AOC 11 – Topographic Low Areas (1 TAA)
- AOC 14 – Railroad Debris Site (1 TAA)
- AOC 16 – Former Sandblast Shelter
- AOC 27 – MW-24 Bench (1 TAA)

All of these TAAs are outside the TCS fence line on federal lands or at locations where constituents have the potential to migrate to federal land including the HNWR (Figure 3). AOC 16 is the sole area that is located within the TCS fence line.

2.2.1 SWMU 1 – Former Percolation Bed and AOC 1 – Area Around Former Percolation Bed

AOC 1 and SWMU 1 are located west and north of the TCS within Bat Cave Wash (BCW) as shown on Figures 3 and 4. AOC 1 comprises a portion of BCW adjacent to the station including SWMU 1, as well as the portion of BCW extending north of SWMU 1 toward the Colorado River. SWMU 1 is the former percolation bed for TCS.

2.2.1.1 SWMU 1 – Former Percolation Bed TAA-1, -2 and -3

SWMU 1 TAA-1: This excavation was backfilled to grade with ¾-inch plus screened rock and aggregate base (AB) from the Campbell Redi-Mix Inc. in Lake Havasu City, Arizona.

SWMU 1 TAA-2: This excavation was backfilled nearly to grade with rip rap and Campbell's AB. This excavation required the removal of uncontaminated soils from the upper east slope of Bat Cave Wash to permit excavation of contaminated material at the base of the slope. In response to a request by the Tribes, the steep slope was backfilled with a soil cover, that required the construction of a temporary earthen ramp to permit the excavator to reach above the excavated slope for backfilling. After backfilling, the temporary ramp was removed, and the ramp area was restored to the original grade.

SWMU 1 TAA-3: This excavation was not backfilled due to the steepness of the slope on the east side of Bat Cave Wash.

2.2.1.2 AOC 1 – Area Around Former Percolation Bed TAA-1, -2, and -3

AOC 1 TAA-1: This excavation was backfilled to grade with aggregate base (AB) from the Campbell Redi-Mix Inc. in Lake Havasu City, Arizona.

AOC 1 TAA-2: This excavation was backfilled to grade with ¾-inch plus screened rock and Campbell's AB.

AOC 1 TAA-3: This excavation was backfilled to nearly to grade with Campbell's AB.

2.2.2 AOC 9 – Southeast Fence Line

AOC 9 is located in the southeast portion of the facility, just south of the visitor parking lot and immediately east of (outside) the facility fence line (Figures 3 and 4). A small amount of discolored surface soil was encountered just outside the fence line on an extremely steep slope in 2000 which was partially removed. Site conditions (the steepness and stability of the slope) limited the feasible extent of excavation at that time.

2.2.2.1 AOC 9- Southeast Fence Line TAA-1

AOC 9 TAA-1: This excavation was lined with geofabric and backfilled to grade with riprap.

2.2.3 AOC 10 – East Ravine

AOC 10 is located southeast of the TCS in a small ravine known as East Ravine. The ravine runs eastward toward the Colorado River. AOC 10 generally includes all of East Ravine as well as the specific areas shown on Figures 3 and 4.

2.2.3.1 AOC 10 – East Ravine TAA-1, -2, -3, and -4

AOC 10 TAA-1: This excavation was lined with geofabric and backfilled to grade with riprap. Campbell's AB was used on the south side at the base of the slope.

AOC 10 TAA-2: Limited backfill using various native materials around the existing monitoring wells, check dam, and at the base of steep slopes.

AOC 10 TAA-3: This excavation was not backfilled because it was just a pile of soil on the ground surface that, once removed, left a slight depression that was graded to match the surrounding area.

AOC 10 TAA-4: The excavation was backfilled with various native materials.

2.2.4 AOC 11 – Topographic Low Areas

AOC 11 consists of topographic low areas on the northeast side of the TCS (Figures 3 and 4). There is a principal drainage pathway leading away from the TCS with certain channels and storm drains draining

into a topographic low point. Runoff from the facility collected into this low point and infiltrated or evaporated.

2.2.4.1 AOC 11- Topographic Low Areas TAA-1

AOC 11 TAA-1: This excavation was not backfilled because it occurred in a remote ravine that did not require restoration to the original grade.

2.2.5 AOC 14 – Railroad Debris Site

AOC 14 is located outside the facility fence line approximately 1,000 ft north of the TCS and is currently bounded by the BNSF railroad tracks to the north, I-40 to the south, BCW to the west, and a former access road (Historic Route 66) to the east (Figures 3 and 4). AOC 14 contained miscellaneous construction debris related to construction of the railroad including chunks of asphalt, railroad ties, piping and asbestos. Asbestos containing material and burnt material from PG&E operations have also been disposed of within AOC 14.

2.2.5.1 AOC 14 TAA-1

AOC 14 TAA-1: This excavation was backfilled nearly to grade with Campbell's AB.

2.2.6 AOC 16 – Former Sandblast Shelter

AOC 16, the Former Sandblast Shelter, is located above SWMU 1/AOC 1 in the lower yard of the TCS. The sandblast shelter was constructed of four supports and a roof with open sides. The area immediately surrounding the shelter is currently and has historically been unpaved, except for the concrete driveway between the eastern edge of the shelter and the paved roadway. Two different colors of apparent abrasive material (sandblast grit) were present on the ground in the immediate vicinity of the sandblast shelter.

2.2.6.1 AOC 16- Sandblast Grit Removal

AOC 16: This excavation was entirely hand dug and backfilled to grade with Campbell's AB.

2.2.7 AOC 27 – MW-24 Bench

AOC 27 is located outside the facility fence line north of the TCS, south of I-40, and east of BCW (AOC 1) as shown on Figures 3 and 4. A former TCS employee indicated that AOC 27, informally known as the MW-24 bench, was formerly used as a waste disposal area. Prior to construction of I-40, this area was contiguous with AOC 14 to the north. Miscellaneous construction debris and burned material were present in AOC 27.

2.2.7.1 AOC 27 TAA-1

TAA-1: This excavation was backfilled nearly to grade with Campbell's AB.

3. Compliance with the Soil NTCRA BA General Conservation and Species-Specific Mitigation Measures

The Soil NTCRA BA included twenty-five (25) General Conservation Measures (GCMs) that would be applied to all NTCRA field activities. In addition, there were species-specific mitigation measures intended to minimize adverse effects southwestern willow flycatcher (SWFL) (2 measures) and Yuma Ridgway's rail (YRR) (1 measure).

3.1 Project Compliance with General Measures

Project compliance with all the relevant conservation measures mentioned above is provided in Appendix A, Table A-1. Compliance with the GCMs and species-specific mitigation measures was achieved through the program training of project staff and biological survey and monitoring.

In general, deviations from the GCMs were minor and were corrected in the field. Actions related to expansion of work areas was developed in collaboration of regulators. Impacts to protected plants were minimized where possible.

Project compliance with general measures was documented in the daily reports. Issues related to compliance were extracted from the daily report and put into a spreadsheet that was used to communicate the issues and resolution to PG&E management. The spreadsheet documented three separate NTCRA compliance issues as follows:

- GCM 16 - November 4, 2022: A non-project vehicle damaged a creosote bush along access roadway into Bat Cave Wash when working crews were not present.
- GCM 16 - November 30, 2022: A non-project vehicle got stuck within Bat Cave Wash. The vehicle ran over a creosote bush.
- GCM 14 - October 20, 2023. While excavating in SWMU-1-1, a catclaw acacia was struck by the back of the excavator, breaking a single branch. The broken branch was estimated to represent less than 8 percent of the crown volume.

In addition to the above-listed NTCRA compliance issues, daily reports also documented resource protection actions, unavoidable plant impacts, and incidental wildlife sightings. The project's compliance with species-specific mitigation measures was successful.

4. Worker Endangered Species Training and Field Contact Representative Compliance Monitoring

4.1 Worker Endangered Species Training

In accordance with Soil NTCRA BA General Conservation Measure 5, all PG&E employees and the contractors involved with the proposed project were required to attend PG&E's threatened and endangered species education program prior to initiation of activities. New employees and contractors received training prior to working onsite.

A WEAT was provided to all personnel conducting soil investigation activities at the Site. Jacobs Engineering Group biologist John Cordon provided the initial NTCRA WEAT training on July 11, 2022 to Ground Water Partners (GWP), Jacobs, and PG&E construction personnel. Following the initial training, throughout the duration of the project, when new personnel arrived onsite, the onsite biologist provided the WEAT following the morning safety meeting. The WEAT included information on species included in the Soil NTCRA BA, such as the SWFL, YRR, and Agassiz's desert tortoise (DETO). The WEAT also included other species identified in the 2014 PBA, such as the YBCU, Yuma clapper rail, bonytail chub, and razorback sucker, as well as species identified in the Final Environmental Impact Report such as the ring-tailed cat (*Bassariscus astutus*), desert bighorn sheep (*Ovis canadensis nelsoni*), and several species of bats, as well as other bird species protected under the Migratory Bird Treaty Act. The WEAT also included information about jurisdictional waters and wetlands per Section 404 of the Clean Water Act. Attendance at the WEATs was recorded on sign-in sheets and a list of the dates for trainings can be found in Table 4-1 below.

Table 4-1. Dates of Worker Environmental Awareness Training^a

Quarter: Dates	Number of Workers and PG&E Employees	Number of Companies
2022 Q3: 7/7; 7/11; 7/12; 7/13; 7/14; 7/18; 7/23; 7/27; 8/2; 8/5; 8/7; 8/8; 8/9; 8/10; 8/15; 8/17; 8/18; 8/19; 8/23; 8/24; 8/29; 9/1; 9/2; 9/7; 9/9; 9/12; 9/13; 9/14; 9/15; 9/16; 9/18; 9/19; 9/20; 9/21; 9/23; 9/26; 9/27	75	18
2022 Q4: 10/4; 10/10; 10/12; 10/14; 10/16; 10/17; 10/18; 10/26; 10/30; 11/1; 11/9; 11/16; 11/29; 12/7; 12/8; 12/9; 12/12; 12/13	36	11
2023 Q1: 1/18; 1/19; 1/20; 1/30; 2/2; 2/3; 2/6; 2/8; 2/9; 2/13; 2/14; 2/27; 2/28; 3/1; 3/5; 3/6; 3/14; 3/20; 3/25; 3/28	144	13
2023 Q2: 4/3; 4/12; 4/17; 4/18; 4/19; 4/20; 4/21; 4/23; 4/24; 4/25; 5/2; 5/5; 5/8; 5/9; 5/10; 5/11; 5/12; 5/13; 5/14; 5/15; 5/16; 5/18; 5/19; 5/20; 5/22; 5/25; 5/31; 6/7	107	17
2023 Q3: 7/12; 7/19; 7/24; 8/11; 8/22; 8/24; 8/28; 9/21; 9/24	12	8

Quarter: Dates	Number of Workers and PG&E Employees	Number of Companies
2023 Q4: 10/2; 10/3; 10/4; 10/5; 10/6; 10/9; 10/10; 10/12; 10/16; 10/24; 10/25; 11/1; 11/2; 11/3; 11/4; 11/6; 11/9; 11/10; 11/27	27	8
2024 Q1: 1/3; 1/4; 1/5; 1/8; 1/16; 1/25; 2/1; 2/19; 2/20; 2/22; 2/23;	100	9
2024 Q2: 4/8; 4/15; 4/29	3	3
Totals 6 Quarters: 145 total days WEAT was given	504	87
^a WEAT training was provided for all employees and workers for any remediation construction, inclusive of NTCRA activities		

4.2 Field Biologists

NTCRA field activities were monitored by a field biologist with prior experiences and qualifications with the natural resources that occur at the NTCRA project area. Jacobs biologist, John Cordon, oversaw the NTCRA field activities from the time of project startup until June 2023. At this time, he was replaced by Eocene biologist, Brandy McWain, who oversaw the remainder of the NTCRA field activities outside of the SPY until their completion in March 6, 2024. Ms. McWain was already familiar with the project area and local biological resources through her involvement with the construction activities associated with the groundwater remedy that began in 2018.

4.3 Field Contact Representative

The Field Contact Representative (FCR) role was to assist field biologists with monitoring during NTCRA field activities. At the initiation of the NTCRA project, the qualified biologist conducted a detailed training that covered the general measures from the Soil NTCRA BA as well as the compliance needs during construction activities. The FCR was responsible for understanding which situations required work to be stopped and a biologist to be notified. The FCR was not permitted to conduct surveys or make field assessments that would require a qualified biologist. There were eleven (11) PG&E employees, contractors, and biologists that were trained to function as FCRs during the Soil NTCRA activities.

5. Protocol/Focused Surveys, Pre-/Post-Activity Surveys, Monitoring and Compliance

Periodic protocol or focused surveys for species listed in the NTCRA BA (PG&E 2021) have been completed in the project area prior to and during the NTCRA construction activities. These surveys, described in the Subsection 5.1, were used to inform the implementation of construction activities.

Pre-activity surveys were completed at each work location prior to initiation of NTCRA construction activities, as summarized in Subsection 5.2. All of the NTCRA work locations were monitored by a qualified biologist or FCR during construction, as summarized in Subsection 5.3. After completion of NTCRA activities, post-activity surveys were completed as summarized in Subsection 5.4.

The results of the pre- and post-construction surveys and the biological monitoring reports are summarized in Subsection 5.5. Throughout the NTCRA construction these biological monitoring activities were used to document project compliance with the NTCRA BA conservation measures and species-specific avoidance and minimization measures, as summarized in Subsection 5.6.

5.1 Protocol-Level and Focused Species Surveys

As part of the requirements associated with the Groundwater Remedy Programmatic Biological Assessment (GW Remedy PBA) (CH2M HILL 2014), protocol-level or focused surveys have been completed in the NTCRA project area, which is completely encompassed within the GW Remedy Action Area. These protocol-level or focused surveys were completed for SWFL, Western yellow-billed cuckoo (YBCU), YRR, Agassiz desert tortoise (DETO), and NMGS. Of these species, only SWFL, DETO, and YRR were significant to the Soil NTCRA BA and are described in the following subsections. The remaining species in the GW Remedy PBA (i.e.; YBCU, NMGS, razorback sucker, and bony-tailed chub) were considered to have no effect related to the Soil NTCRA activities.

In addition to the protocol-level surveys for these federally-listed wildlife species, plant surveys were also completed in the project areas that included protocol-level surveys for rare plants, other protected plants, and ethnobotanically-significant plants (GANDA and CH2M HILL 2013). While no rare plant locations were directly affected by the Soil NTCRA activities, it was ultimately necessary to remove some BLM protected plants. See Section 6.1 for additional information on impacts to BLM protected plants.

5.1.1 SWFL Surveys

Protocol SWFL surveys were conducted in the project area annually between 2005 and 2010 and then biannually between 2010 and 2014 (GANDA 2005a, 2006a, 2007a, 2008a, 2009a, 2010, 2012, 2014a, 2017; Kleinfelder 2021). The frequency of protocol surveys was then adjusted to every three years in accordance with the PBA (CH2M HILL 2014) so that the next SWFL survey was completed in 2017. The next SWFL survey was completed in 2021 because the 2020 survey was missed due to the COVID pandemic restrictions. The three-year frequency for protocol-level SWFL surveys was just completed this year, 2024. Preliminary results from the 2024 surveys indicate that only transient individuals were detected in Arizona.

Three SWFL were detected during the 2021 survey. A single individual was detected in site AZ-1 on May 18th and two individuals were detected together at site AZ-1 on June 8th. These detections were considered transient individuals since no detections occurred later in the season that would indicate SWFL

were breeding in the area. Transient SWFL have been detected during every previous survey year except 2010 and 2017, when no SWFL were detected. Previously, SWFL had been detected in California survey sites in 2005, 2007, 2009, 2012, and 2014, while detections within Arizona survey sites were recorded in 2007, 2008, and 2014. The protocol-level SWFL surveys did not indicate the presence of nesting birds in the project area to date.

5.1.2 DETO Surveys

Protocol-level surveys for DETO were conducted in the project area annually between 2005 and 2010 (GANDA 2005b, 2006b, 2007b, 2008b, 2009b). An additional focused DETO survey was conducted just west of the NTCRA project area along the Evaporation Ponds and Access Roadway (Transcon 2015).

The results of the annual protocol-level surveys up to 2010 indicated that there had been historical occupation of the project area by DETO but that there had been no evidence of current use. For this reason, regulators stopped requiring protocol-level DETO surveys after 2010. As documented in the BA (Jacobs 2021), avoidance of DETO impacts was then managed through the NTCRA construction activities using pre-construction surveys and biological monitoring as well as field staff awareness training.

In addition to the requirements for regular pre-construction surveys, biological monitoring, and WEAT training, the Soil NTCRA BA GCMs Nos. 3, 4, and 12 pertain specifically to the protection of desert tortoise by onsite inspection of open trenches or excavation and beneath vehicles, as well as procedures for actions in case a tortoise or pallet is spotted.

This species was not observed during the above-mentioned activities. Similarly, there were no observations of any DETO individual anywhere near the project area or surrounding access roadways at any time during the Soil NTCRA activities.

5.1.3 YRR Surveys

Protocol-level surveys for the Yuma Ridgway's rail (YRR) have been conducted annually by USFWS staff within the Topock Marsh portion of Havasu National Wildlife Refuge in Arizona. The USFWS surveys were initiated before the beginning of the NTCRA construction and have continued to the present time. A focused (i.e., non-protocol-level) YRR survey was conducted within the proposed GW Remedy project area in California and Arizona in 2012 (KBS 2012).

The YRR conservation measure (CM YRR 1) in the Soil NTCRA BA states:

Wetlands or marshes with potential Yuma Ridgway's rail habitat outside but near the action area will be surveyed by a FWS-permitted biologist following standard protocols. Surveys will occur the year that the NTCRA is implemented. Survey reports will be provided to the BLM Lake Havasu Field Office and to the FWS Arizona Ecological Services Office.

In Spring of 2022, HNWR biologists completed protocol-level YRR surveys in the Topock Marsh and on the western edges of the Colorado River by the PG&E remediation area where habitat for YRR exist. In Spring 2023, HNWR and PG&E completed the protocol-level YRR surveys that were required in CM YRR1. The initial YRR survey in California was used as an opportunity to train the on-site biologist for the Soil NTCRA, Ms. Brandy McWain, who applied the YRR survey methodology to subsequent surveys in suitable habitat within California.

HNWR conducts annual YRR surveys within the refuge where rail habitat exist, including the marsh and wetland areas adjacent to the Soil NTCRA Action Area in California adjacent to the Colorado River. The 2022 and 2023 Spring survey did not detect any Yuma Ridgeway's rail in either of the PG&E survey spots located on the western bank of the Colorado River, across from the entrance to the Topock Marsh. The only portion of the Soil NTCRA project area that was within the 300-foot radius of potential YRR breeding habitat was the staging area next to the Route 66 sign along National Trails Highway. PG&E decided to not use this staging area for the project until the completion of the 2023 YRR surveys and there were two years of negative findings for YRR in the potential California breeding habitat.

5.2 Pre-activity Surveys

All biologists conducting field surveys and biological monitoring were qualified biologists with prior experience working with protected species. In this manner, every work location received a pre-construction survey and biological monitoring to ensure that impacts to sensitive species including Mojave Desert tortoise, desert bighorn sheep, ring-tailed cat, nesting birds, and protected plant species were avoided. Pre-activity surveys were done by biologists prior to the initiation of and daily construction activities, as needed.

5.3 Monitoring

An FCR was present for all investigation activities unless the biologist was required. The biologist was required to monitor all plant trimming and removal activities and initial ground disturbance work, including excavations. John Cordon/Jacobs, Ms. McWain or another Transcon/Blue Rock biologist that with qualified experience was present for most of the investigation activities in accordance with the Soil NTCRA permits. Full-time biological monitoring was required from July 11, 2022 until March 6, 2024 when all work on-site was completed, except for soil management activities inside the fenced SPY. Biologist were present as needed after March 6, 2024, as needed.

5.4 Post-Activity Surveys

Post-activity surveys were conducted by Ms. McWain or another Transcon/Blue Rock biologist qualified biologist to document post-activity conditions at each work location and to assess the project disturbance to disturbed/ non-native habitat and habitat. Vegetation removal was documented at each work site as it occurred, with a detailed inventory provided for protected native plant removals. Final post construction ground disturbance was recorded using GPS after the conclusion of construction activities.

6. Results

No ESA-listed species or signs of such species were observed during the pre-activity surveys. Some of the wildlife species observed included desert bighorn sheep, ring-tailed cat (by scat), wild burro (*Equus asinus*), coyotes (*Canis latrans*), desert iguana (*Dipsosaurus dorsalis*), chuckwalla (*Sauromalus ater*), roadrunners (*Geococcyx californianus*), and Gambel's quail (*Callipepla gambelii*). Plant species of interest observed during pre-activity surveys include blue palo verde, honey mesquite (*Prosopis glandulosa*), catclaw acacia, and several cactus species including beavertail cactus (*Opuntia basilaris* var. *basilaris*) were observed during pre-activity surveys.

After the protocol-level YRR surveys determined that individuals were not present in the potential rail breeding habitat in California, PG&E began in September 2023 to utilize the staging area by the Route 66 sign, which is within the 300-foot buffer around potential YRR breeding habitat.

Similarly, there were no ESA-listed species or signs of such species observe during the periodic site monitoring events. During the duration of the project one active nest, an ash-throated flycatcher nest was observed within the project area. Construction buffers were established to protect the nest until the fledglings left the nesting area. Several notable events were recorded by the biologist throughout the project. On September 29, 2022, during the dewatering of AOC 10 TAA4, the biologist ensured a screen was placed over the vac truck hose and relocated 7 frogs as dewatering took place. On October 5, 2022, May 13, May 26, June 5 and September 22, 2023, transplantation of beavertail cacti occurred, in total six cacti were successfully transplanted to Topock Groundwater Remediation upland mitigation area.

6.1 Protected Plant Impacts

BLM protected plant species were protected where possible. If full avoidance was not possible, protected plants were trimmed to avoid construction impacts. In some cases, avoidance and trimming only were not options during construction to remove contamination under the tree. For those protected plant species that were removed, replacement plants will be provided. The requirement for replacing protected plants that could not be avoided during construction was given in the Soil NTCRA BA (Jacobs 2021b) in the following GCM:

GCM 14. Palo verde, ocotillo, mesquite, catclaw acacia, and smoketree are considered sensitive by the BLM. To the extent practicable, these species will be avoided. No more than 20% of the tree canopy may be trimmed if avoidance is not possible. If avoidance and minimal trimming is not possible, these species will be replaced.

6.1.1 Plant Removals

A summary of the total number of protected plants trimmed or removed as a result of the Soil NTCRA activities is provided in Table 6-1. The locations of removed plants are mapped on Figure 4.

Table 6-1. Protected Plant Removals

Species	Removed	Removed	Removed	Removed	Removed	Trimmed	Total
Size	<3'	3-4'	4-5'	5-6'	>6'		
Blue palo verde	3				1	2	6
Catclaw acacia	2		1	1	4	2	10
Honey mesquite	5	3	2	3	4	0	17
Total	10	3	3	4	9	4	33

Of the 29 plants that were removed, 10 were less than 3 feet in height (34 percent); 3 each were between 3 to 4 feet and 4 to 5 feet in height (10 percent each); 4 plants were between 5 to 6 feet in height (14 percent); and 9 plants were greater than 6 feet in height (31 percent). All four of the trimmed plants were greater than 6 feet in height.

PG&E is currently coordinating with Tribes and Stakeholders on a revegetation plan for the loss of these protected plant species.

6.2 Habitat Avoidance, Action Area and Work Area Expansions

The following subsections describe the steps that were taken in the design/permitting phase and the implementation of the NTCRA activities.

6.2.1 Habitat Avoidance

The location and extent of the Soil NTCRA excavations was dictated by the occurrence of historical soil contaminants (Jacobs 2021a, 2022). For this reason, there was little latitude for field adjustments to avoid protected plants or habitat. Rather, plants removal impacts during Soil NTCRA activities were documented as they occurred by the biological monitor.

However, habitat avoidance for the Soil NTCRA activities was accomplished primarily through the identification of existing access routes and material laydown areas during the design of the project. To the extent possible, these facilities were established prior to mobilization within previously disturbed areas. Pre- and post-construction surveys of the disturbed areas by the biological monitor was used to track any expansions of the disturbed area as well as any habitat losses as reported in Section 6.3.

6.2.2 Action Area Expansions

The final Soil NTCRA Work Plan (Jacobs 2022) was approved by the DOI on June 27 (DOI 2022). The Work Plan identified the areas needed for construction to clean up the identified TAAs with the information that was available from past soil investigations. As the clean-up work incrementally progressed following the contamination that was identified underground during construction, it was realized that additional work area would be needed outside the existing Action Area. These expansions were required to increase the

size of excavations as the contaminants were followed as they were uncovered as well as required expanded access routes.

Any expansions of the Action Area as depicted in the Soil NTCRA BA (Jacobs 2021b) required a written request to the USFWS and approval prior to initiating activities in those areas. PG&E made a total of three requests to expand the Action Area. Figure 2 depicts the initial and the final Action Area expansions. Written approval from USFWS for each Action Area expansion request was received prior to initiation of field activities. See Table 6-2.

Table 6-2. Summary of Requests for Expansion of the Action Area

Request No.	Request Date	AOC Area Involved
1	8/29/2022	Three areas were expanded: <ul style="list-style-type: none"> • AOC 1 TAA-2 to the west, TAA-1 to the south AOC 14 TAA1 NW corner and to the east • AOC10 TAA-1, -2, and -4 to the east
2	12/16/2022	Two areas were expanded: <ul style="list-style-type: none"> • All of AOC 1 was expanded to the west, to the south and portions to the east • AOC 14 to the west of TAA-2, -3 and -4
3	9/27/2023	Three areas were expanded: <ul style="list-style-type: none"> • Areas along the Southern Cal Access Road, • Areas south of SWMU 1 TAA-3, west of SWMU 1 TAA-1, small areas east of AOC 1 TAA3 • Areas north of AOC 14 TAA 1

6.2.3 Work Area Expansions

Similar to the need to expand the Action Area, the Designated Work Area also needed to be expanded to complete the clean-up. As the clean-up work incrementally progressed following the contamination that was identified underground during construction, it was realized that additional work area would be needed outside the existing Designated Work Area.

In accordance with GCM 16 of the NTCRA BA, PG&E was required to obtain written approval from BLM and USFWS for work outside the original designated work area.

16. Activities will be restricted to the designated work areas that are determined by the designated work areas. If unforeseen circumstances require project expansion outside of the designated work area, the potential expanded work areas will be surveyed for listed species prior to use of the area. All appropriate mitigation measures will be implemented within the expanded work areas based on the judgment of the project biologist. Work outside of the original designated work area will proceed only after receiving written approval from the BLM and USFWS describing the exact location of the expansion.

PG&E made a total of four written requests to USFWS and HNWR to expand the Designated Work Area (Table 6-3). Figure 2 depicts each of the expansions. Written approval from USFWS and HNWR for each Designated Work Area expansion request was received prior to initiation of field activities.

Table 6-3. Summary of Requests for Expansion of the Designated Work Area

Request No.	Request Date	AOC Area Involved
1	10/3/2022	Areas surrounding SWMU 1 TAA-1,-2,-3, AOC 16, AOC 1 TAA -1,-2 and -3, AOC 27 TAA-1, AOC 14 TAA-1, AOC 9 TAA-1, AOC 10 TAA-1, -2, -3 and -4
2	10/31/2022	Areas surrounding SWMU 1 TAA-1,-2,-3, AOC 1 TAA -2 and -3,
3	12/16/2022	Areas east of AOC 1 TAA-2, -3, west and east of AOC 1 TAA-1, areas surrounding AOC 10 TAA-1,-2,-3,-4
4	9/27/2023	Areas along the Southern Cal Access Road, areas south of SWMU 1 TAA-3, west of SWMU 1 TAA-1, small areas east of AOC 1 TAA3, Areas north of AOC 14 TAA 1

6.3 Project Disturbance and Habitat Impacts

The entire Soil NTCRA was completed within the upland habitat type. No construction activities occurred within the 100-year floodplain of the Colorado River where riparian and wetland habitats exist.

Prior to initiation of Soil NTCRA activities, the mapped limits of natural habitats and prior disturbance areas were established for each of the TAAs. In addition, pre-construction photographs were taken of the proposed work areas. After completion of the Soil NTCRA activities, the boundaries of the construction disturbance area were delineated with a GPS unit. Comparison of the post-construction disturbance area polygons against the pre-construction habitat polygons at each TAA was the basis for the estimated project habitat impacts by calculating total areas for new disturbance added to the pre-construction disturbance. The habitat impacts summarized in Table 6-4 below represent amount of habitat that was removed by NTCRA activities, excluding previously disturbed areas. These disturbance areas by site are depicted in Figure 3 and shown in detail on Figures 4-1 through 4-11.

The project impacts are divided between temporary and permanent impacts. Temporary impacts include temporary access routes, work spaces, and areas returned to original contours and surface material.

Permanent impacts include the slopes treated with rip rap for stabilization (AOCs 9 and 10) and steep banks of Bat Cave Wash where rip rap was installed for stabilization of lower bank areas (SWMU 1 TAA-2 and TAA-3). Soil wedges for working safely were installed in some areas and left in place for future remedy work.

Table 6-2 shows that the total of temporary and permanent upland habitat disturbances among eight SWMU/AOCs was 4.77 acres. Of this total, temporary impacts represented 4.4 acres (92 percent), while permanent impacts represented 0.38 acre (8 percent). The project affected 2.75 acres of previously undisturbed habitat, of which temporary impacts represented 2.4 acres (87 percent) and permanent impacts represented 0.38 acre (13 percent). The project affected 2.015 acres of previously disturbed habitat, of which temporary impacts represented 2.014 acres (99.8 percent) and permanent impacts represented 0.004 acre (0.2 percent).

Table 6-4. Habitat Disturbances

Work Location	Disturbed/Non-Native Habitat Impact		Upland Habitat Impact ^a	
	Temporary	Permanent	Temporary	Permanent
SWMU-1 TAA-1	0.813 ^b	0	0.424 ^b	0
SWMU-1 TAA-2	0.152 ^c	0.004 ^c	0.27 ^c	0.20 ^c
SWMU-1 TAA-3	-- ^c	-- ^c	-- ^c	-- ^c
AOC-1 TAA-1	0.018	0	0.075	0
AOC-1 TAA-2a	-- ^b	0	-- ^b	0
AOC-1 TAA-2b	0.163	0	0.029	0
AOC-1 TAA-3	-- ^b	0	-- ^b	0
AOC-9 TAA-1	0.016	0	0.017	0.009
AOC-10 TAA-1	0.004	0	0.213	0.17
AOC-10 TAA-2	0.28	0	0.68	0
AOC-10 TAA-3	0.077	0	0.0010	0
AOC-10 TAA-4	0.12	0	0.79	0
AOC-11 TAA-1	0.087	0	0.036	0
AOC-14 TAA-1	0.023	0	0.16	0
AOC-14 TAA-1 East of AOC	0.015	0	0.18	0
AOC-14 TAA-1 Well	0.10	0	0.18	0
AOC-16	0.006	0		0

Work Location	Disturbed/Non-Native Habitat Impact		Upland Habitat Impact ^a	
	Temporary	Permanent	Temporary	Permanent
AOC-27 TAA-1	0.14	0	0.029	0
Total Impact	2.015	0.004	2.37	0.38

Notes:

Reported values are in acres.

^a All habitat impacts were within Upland Habitat, which has been defined in the project area to represent desert tortoise habitat and encompasses all areas outside of the Historical Floodplain and Floodplain of the Colorado River.

^b Reported value is the total for the combined excavations of SWMU-1 TAA-1 plus AOC-1 TAA-2 and TAA-3.

^c Reported value is the total for the combined excavations of SWMU-1 TAA-2 and TAA-3.

6.4 Photo Documentation of Soil NTCRA Areas

The requirement for documenting pre- and post-construction conditions as part of the NTCRA soil removal activities was given in the Soil NTCRA BA (Jacobs 2021b) in the following GCM:

GCM 25. Photographic documentation of preconstruction habitat conditions will occur at all major work areas, including TAAs, staging areas, and newly developed access roads, prior to the start of construction and after construction activities are performed.

Pre-construction site conditions were documented with photos taken near the proposed Soil NTCRA excavations. Photo points shown on these maps correspond to the proposed TAA excavations described in the Soil NTCRA BA and Work Plan. Post-construction conditions were documented after completion of the Soil NTCRA activities, including restoration of ground. The post-construction photos were taken from the same location and orientation as the pre-construction photos. Photo points and construction photos for the Soil NTCRA activities are presented in the mapbook included in Appendix B.

7. Conclusions and Recommendations

The Soil NTCRA BA and subsequent consultation with the USFWS determined that the soil removals “may affect, but is not likely to adversely affect” the southwestern willow flycatcher, Agassiz’s Desert tortoise, and Yuma Ridgway’s rail. The NTCRA BA also determined that “no effect” would occur to the critical habitat for these three species.

The general conservation measures in the Soil NTCRA BA were effective in minimizing impacts to these ESA-listed species and their habitats within the Action Area. No take or mortality of any ESA-listed or other special status species occurred during the investigation activities.

A total of 504 PG&E employees and their contractors received the WEAT training during the timeframe of construction. The WEAT training created awareness for employees and contractors of protected species that could occur on-site and the conservation measures that were required to be implemented. Besides the on-going monitoring completed by the biologists and FCR’s, this awareness ensured that natural resources, including endangered and rare species, were protected. Several of the multiple bighorn sheep sightings on-site were first observed by contractors.

Impacts to BLM protected plants were limited to Blue palo verde, catclaw acacia and honey mesquite. Impacts to four of these plants were minimized by only trimming less than 20% of the crown to allow access for construction activities. However, twenty-nine protected plants were removed, 69% of these were 6 feet in height or less.

Impacts to habitat were limited to 2.7 acres of previously undisturbed habitat, of which temporary impacts represented 2.3 acres (86 percent) and permanent impacts represented 0.38 acre (14 percent). There were no impacts to floodplain or historical floodplain associated with the Soil NTCRA activities.

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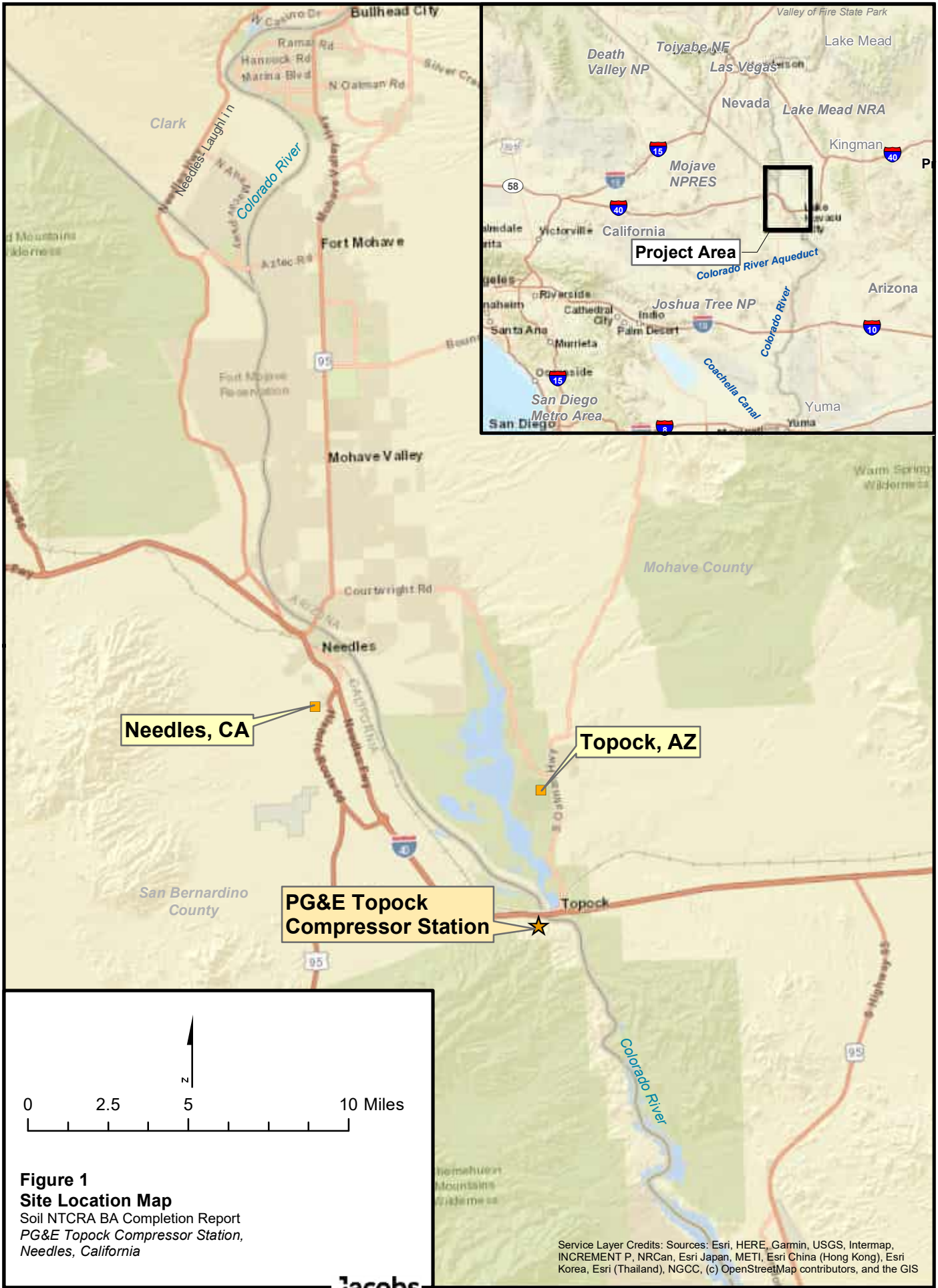
Figures

Figure 1 – Site Location Map

Figure 2 – NTCRA Action Areas

Figure 3 – NTCRA Areas of Concern and Target Areas

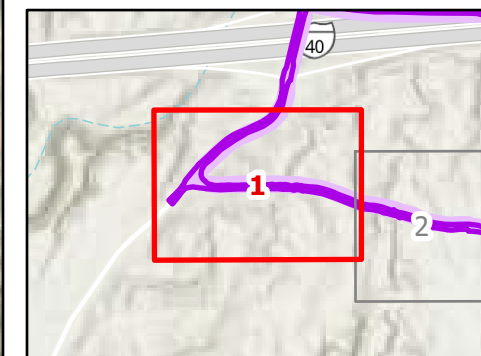
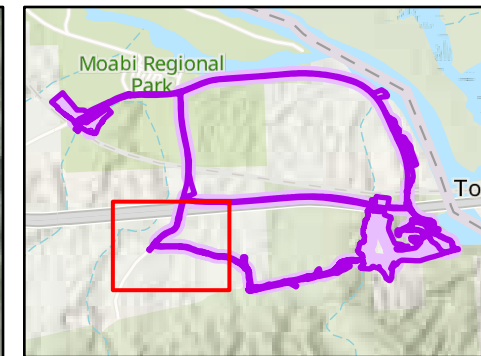
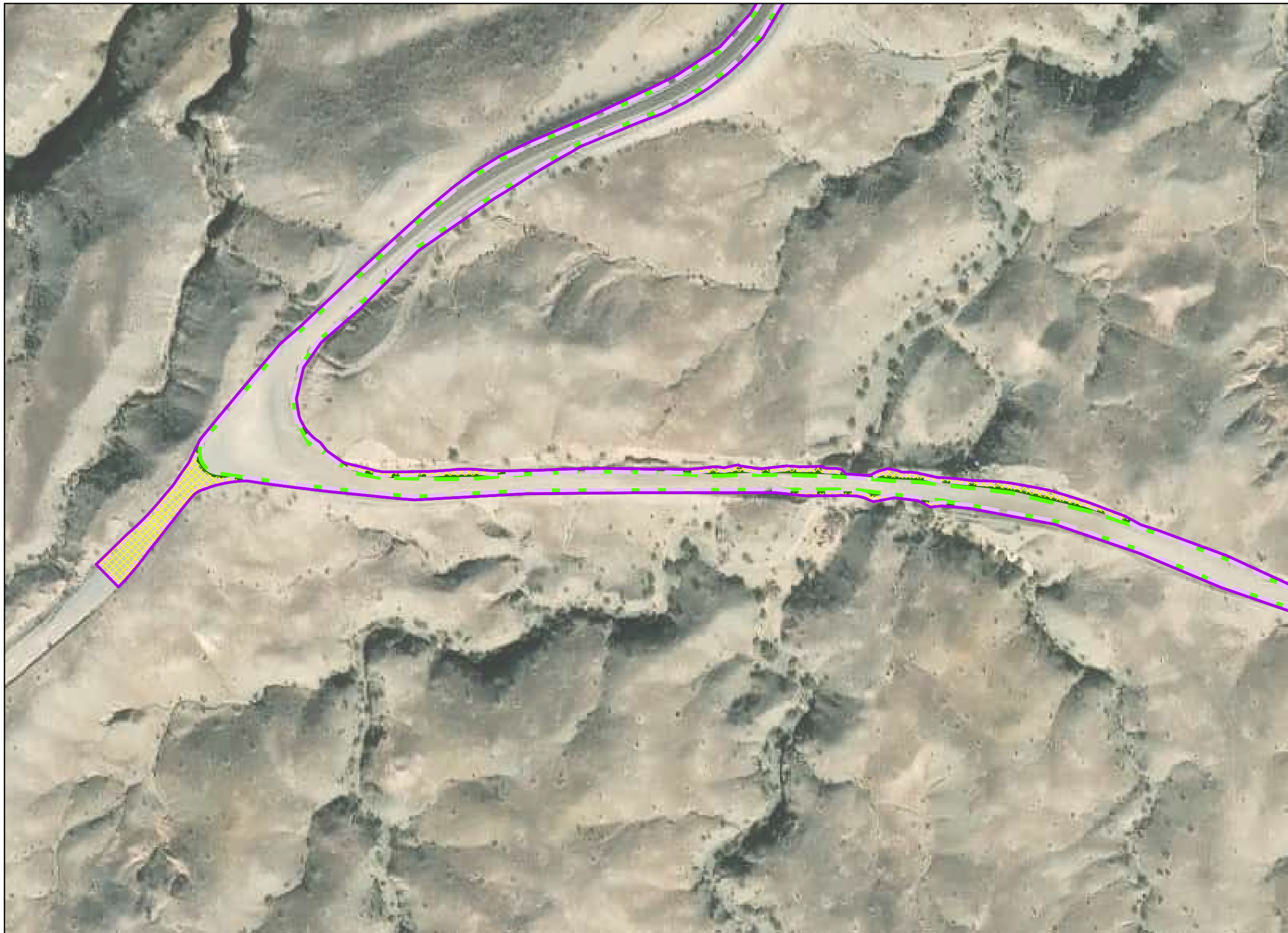
Figure 4-1 through 4-11 – Soil NTCRA Impacts








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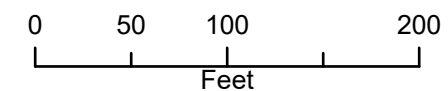
Figure 1
Site Location Map
 Soil NTCRA BA Completion Report
 PG&E Topock Compressor Station,
 Needles, California

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS



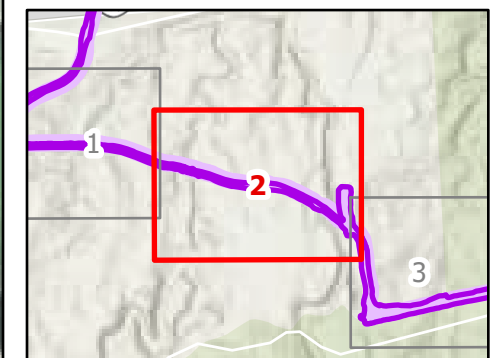
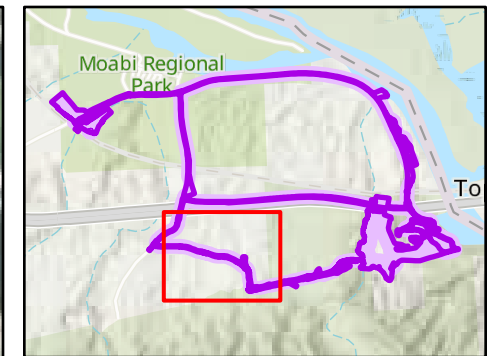
Legend

-  Target Action Area
-  Initial Work Area
-  Final Work Area
-  Final Action Area
-  Initial Action Area








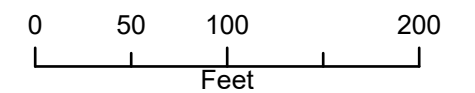
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Figure 2-1
NTCRA Final Action and Work Area
 PG&E Topock Compressor Station,
 Needles, California



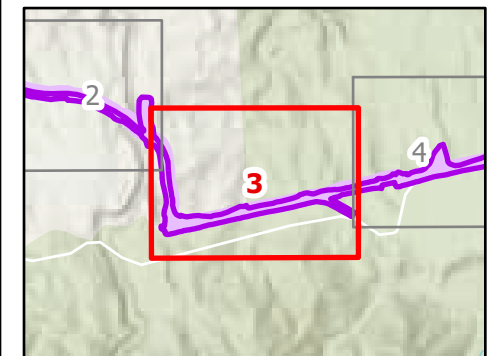
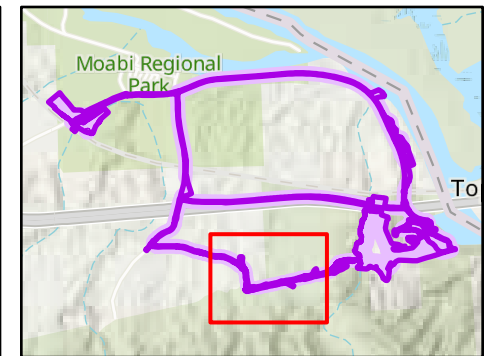
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-  Target Action Area
-  Initial Work Area
-  Final Work Area
-  Final Action Area
-  Initial Action Area








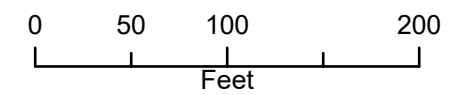
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Figure 2-2
NTCRA Final Action and Work Area
 PG&E Topock Compressor Station,
 Needles, California



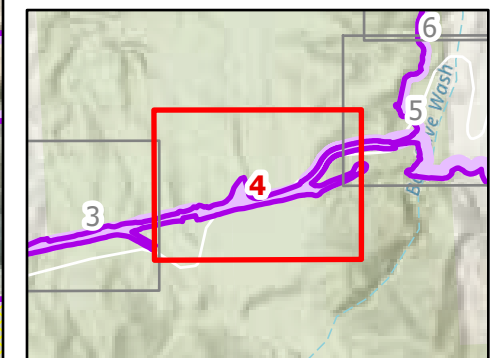
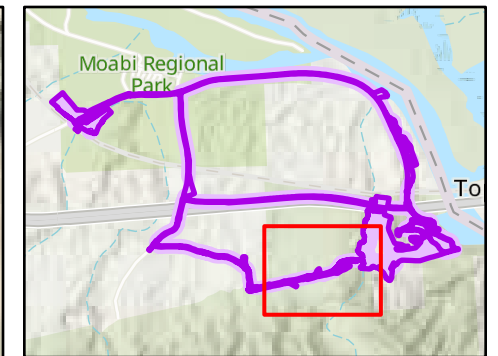
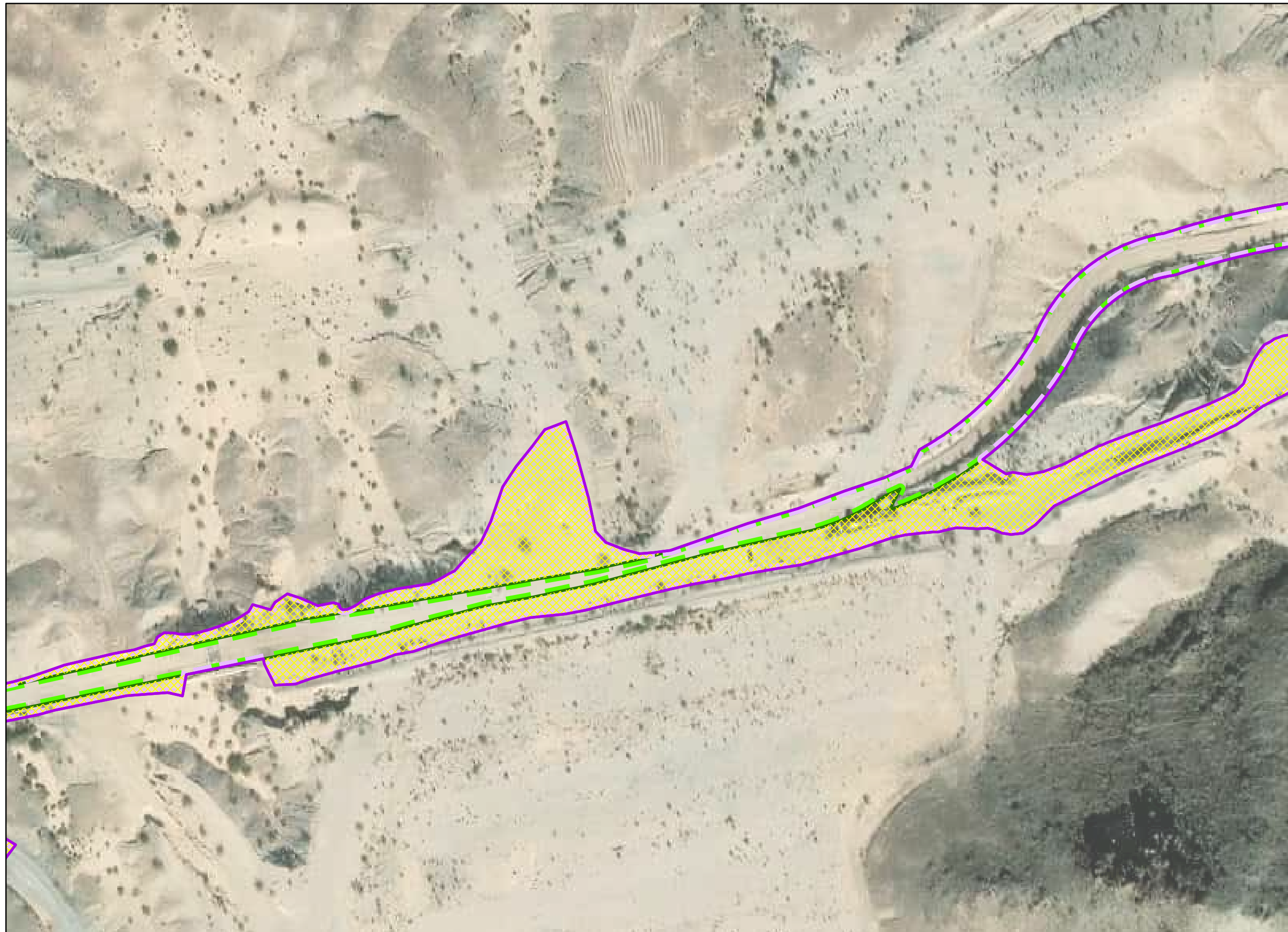
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-  Target Action Area
-  Initial Work Area
-  Final Work Area
-  Final Action Area
-  Initial Action Area








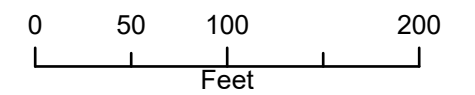
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Figure 2-3
NTCRA Final Action and Work Area
 PG&E Topock Compressor Station,
 Needles, California



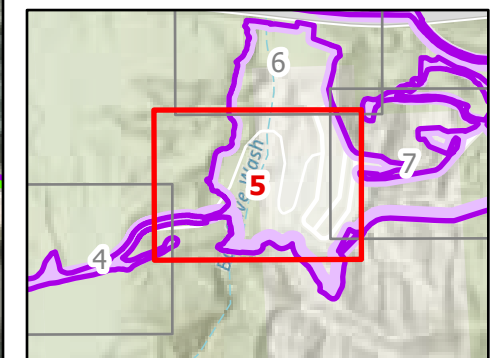
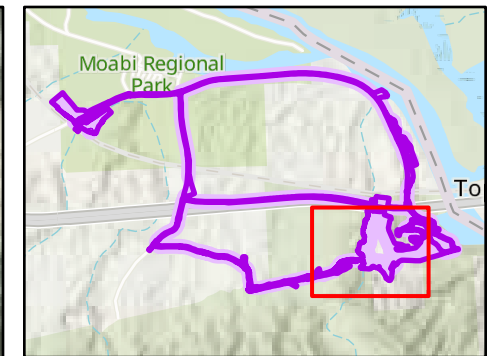
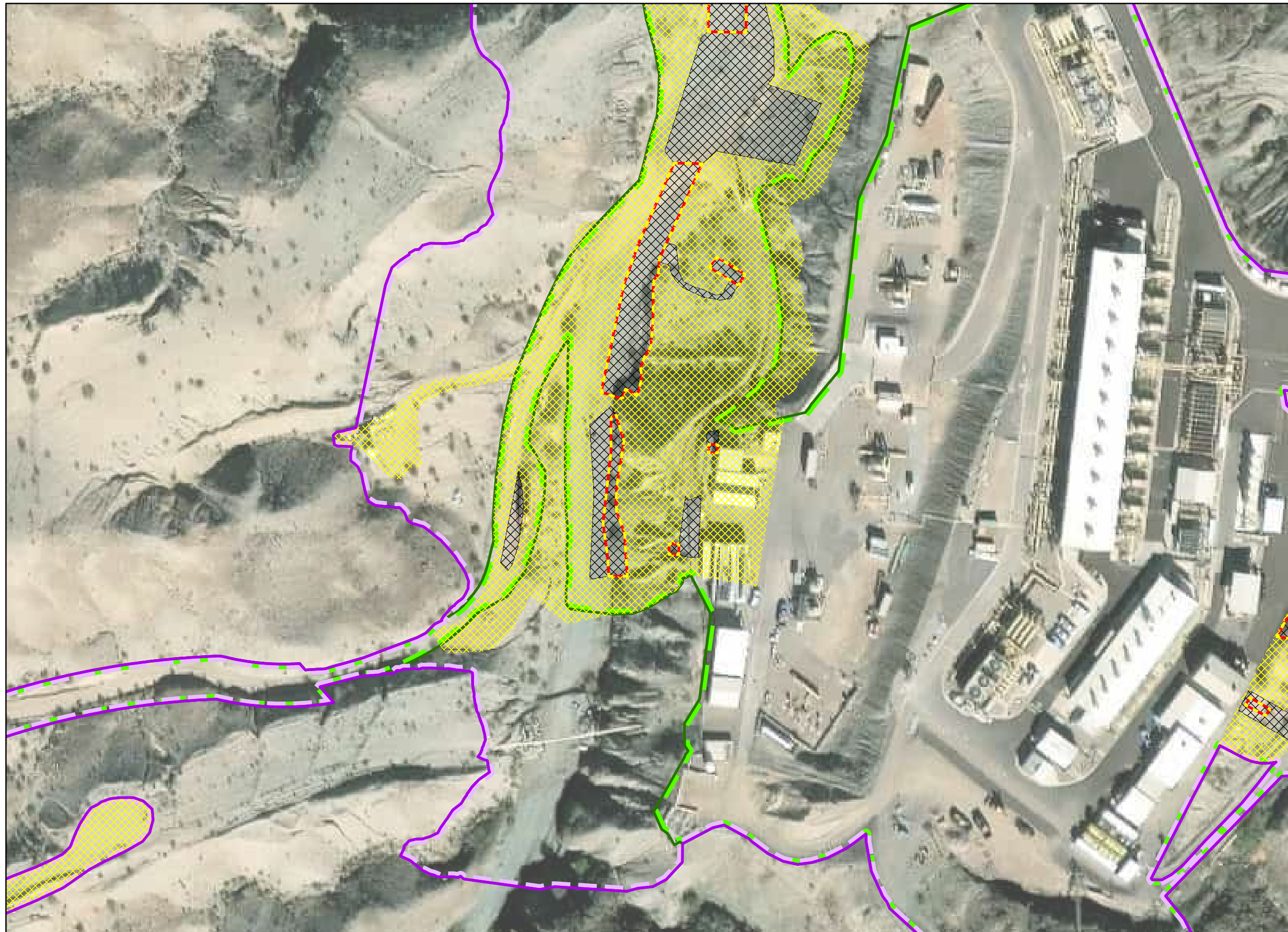
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-  Target Action Area
-  Initial Work Area
-  Final Work Area
-  Final Action Area
-  Initial Action Area








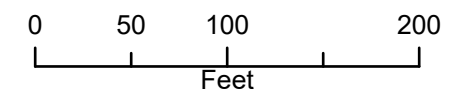
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Figure 2-4
NTCRA Final Action and Work Area
 PG&E Topock Compressor Station,
 Needles, California



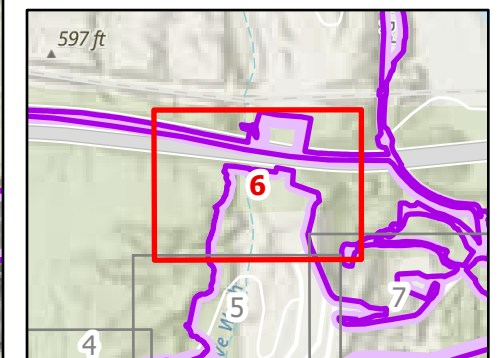
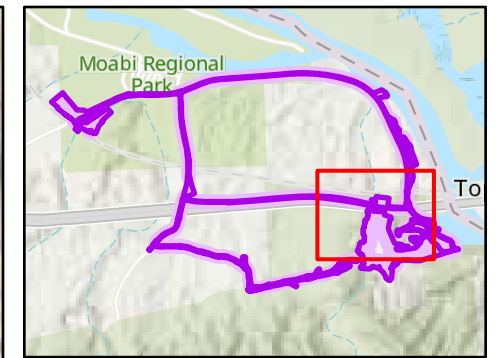
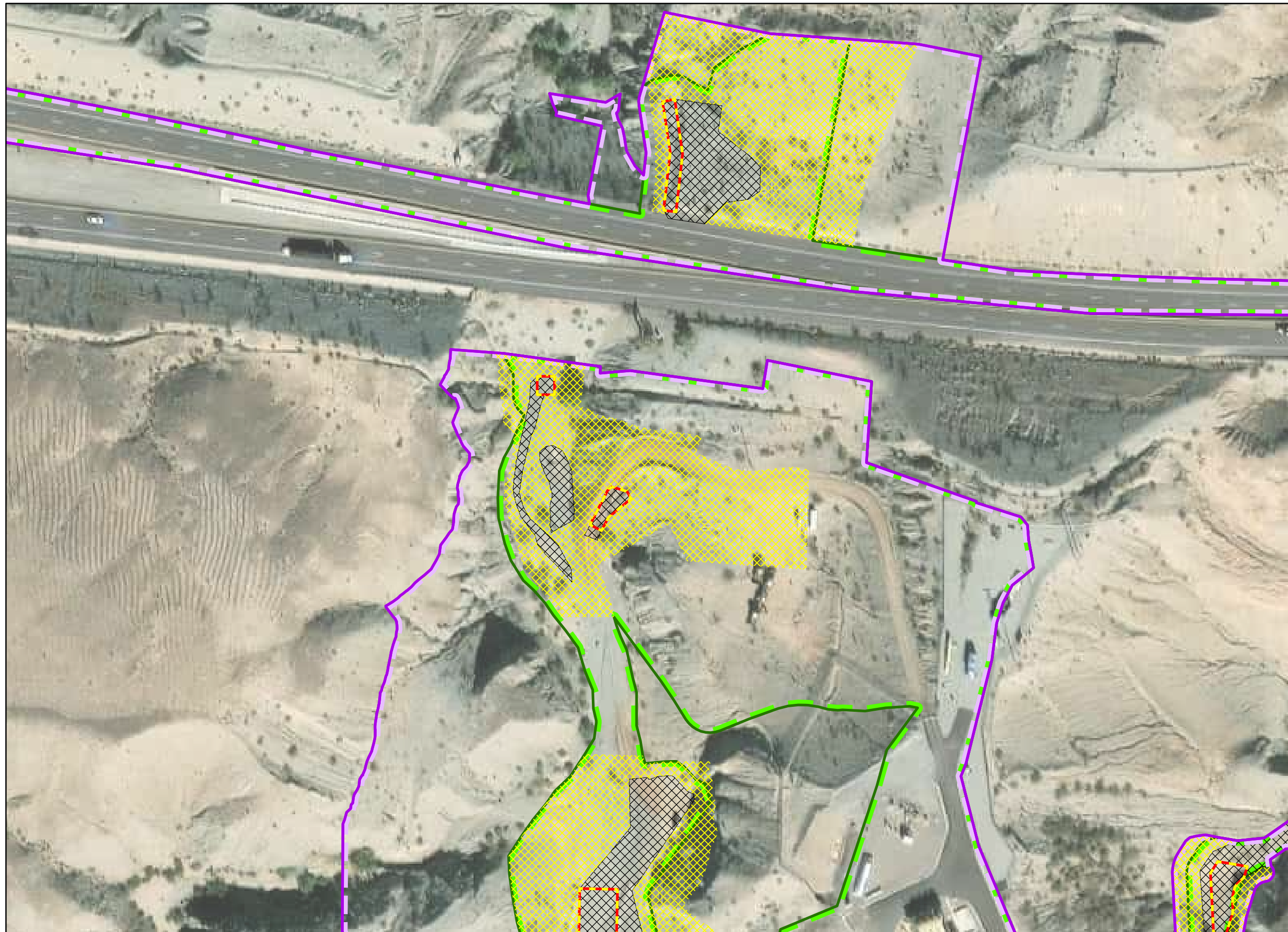
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-  Target Action Area
-  Initial Work Area
-  Final Work Area
-  Final Action Area
-  Initial Action Area








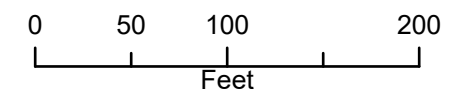
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Figure 2-5
NTCRA Final Action and Work Area
 PG&E Topock Compressor Station,
 Needles, California



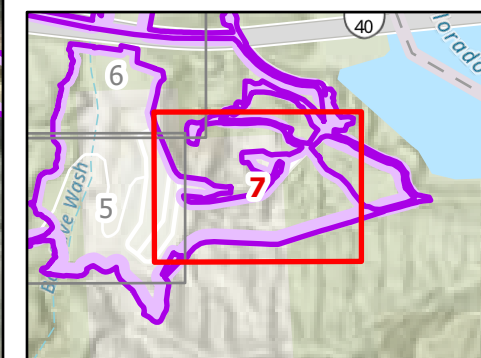
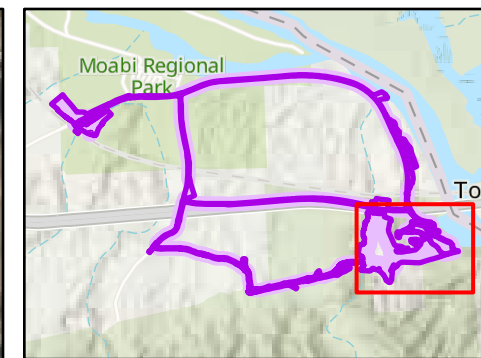
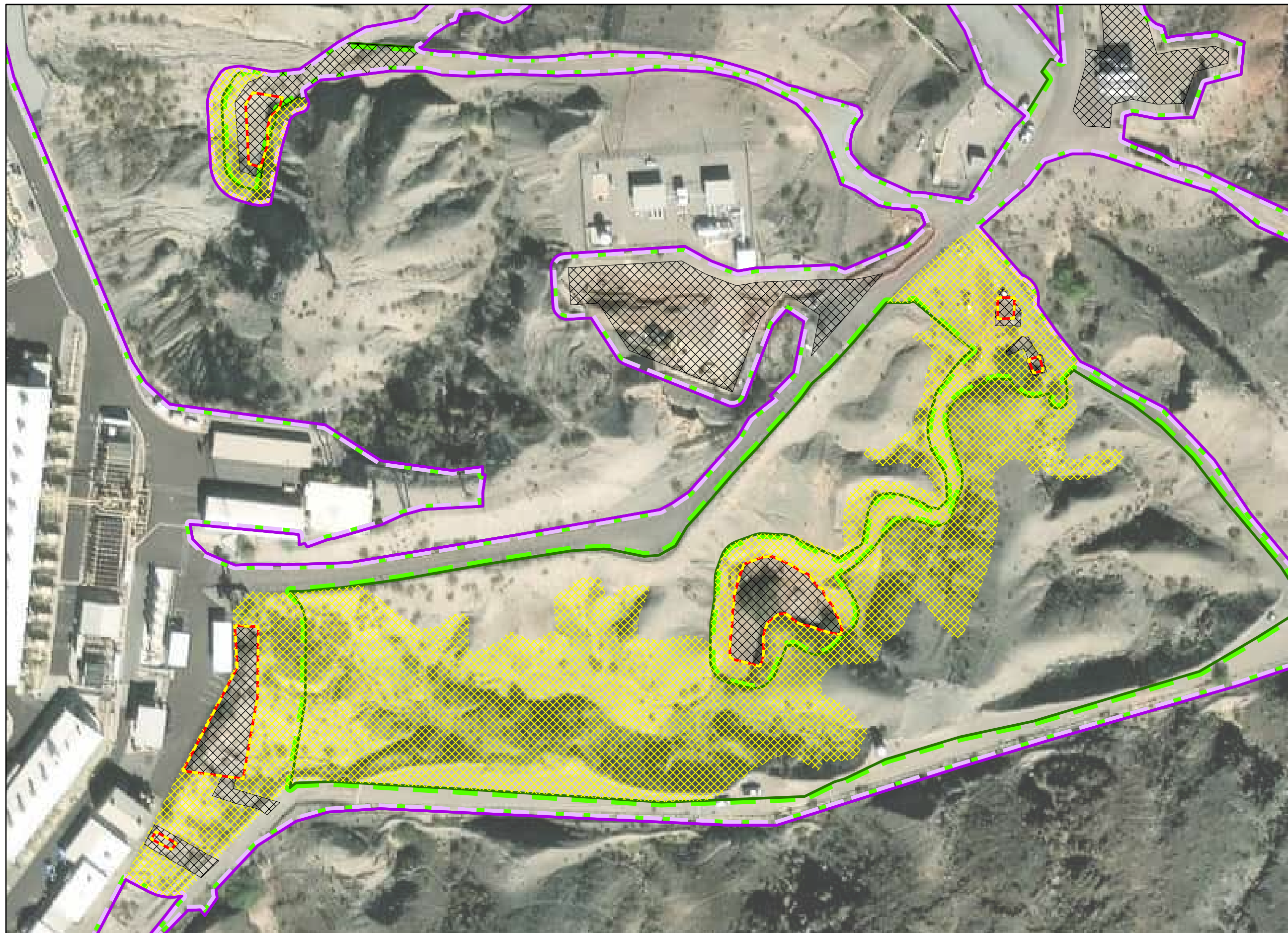
Legend

-  Target Action Area
-  Initial Work Area
-  Final Work Area
-  Final Action Area
-  Initial Action Area








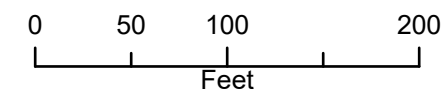
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Figure 2-6
NTCRA Final Action and Work Area
 PG&E Topock Compressor Station,
 Needles, California



Legend

-  Target Action Area
-  Initial Work Area
-  Final Work Area
-  Final Action Area
-  Initial Action Area



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Figure 2-7
NTCRA Final Action and Work Area
 PG&E Topock Compressor Station,
 Needles, California

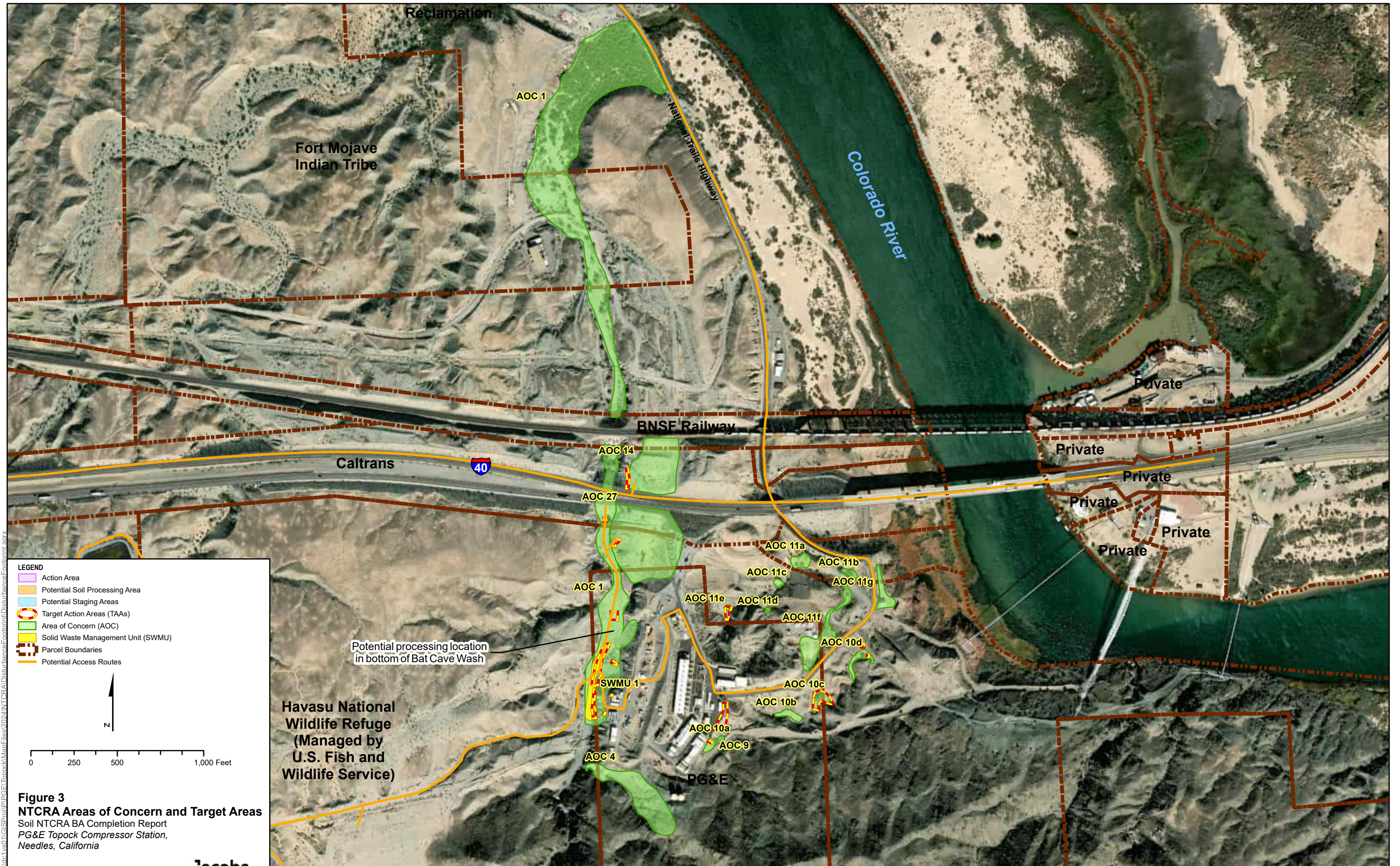
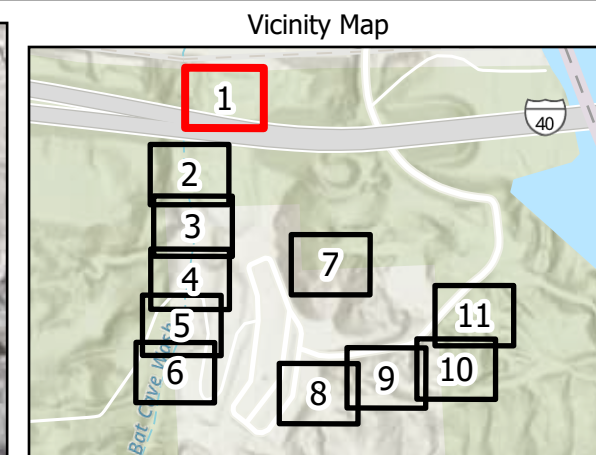
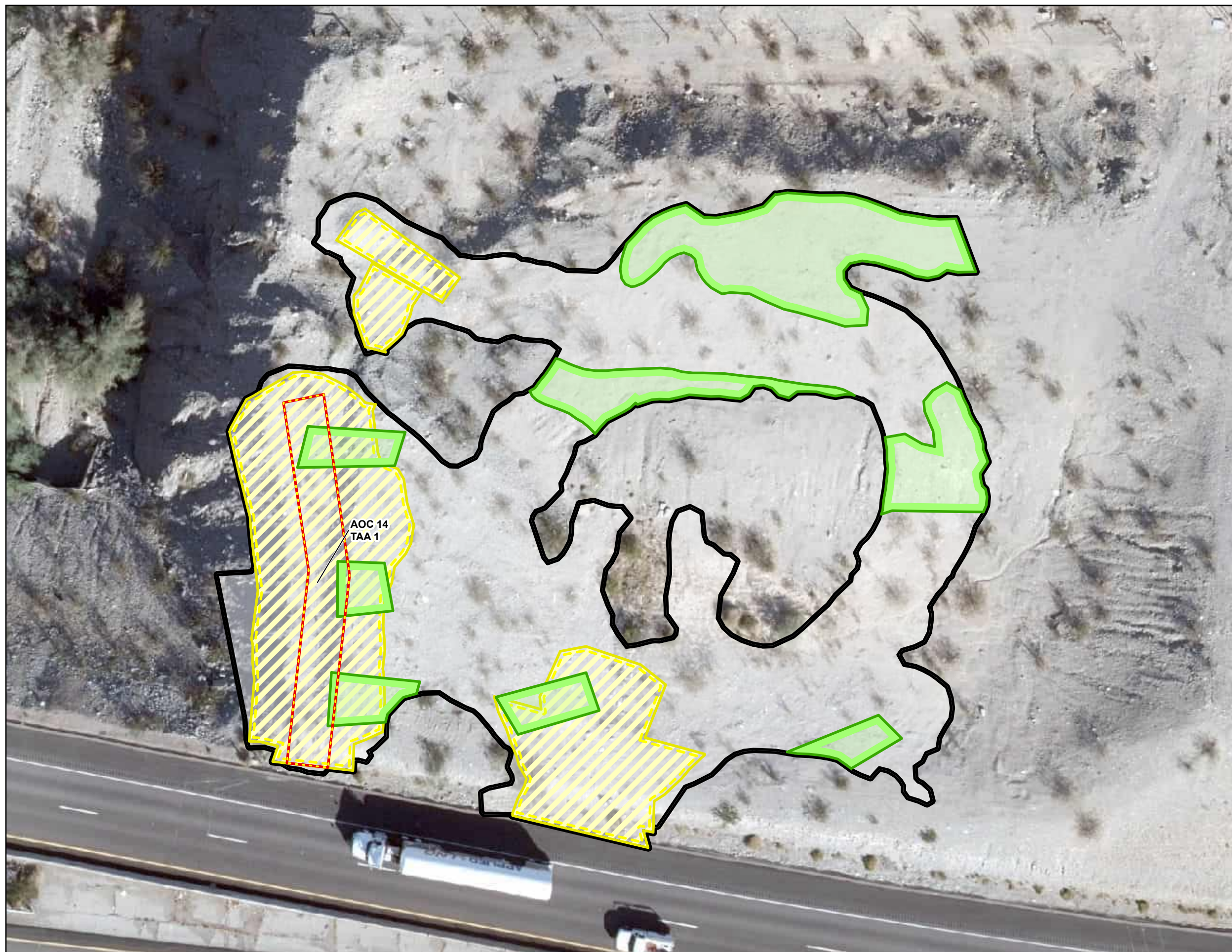


Figure 3
NTCRA Areas of Concern and Target Areas
 Soil NTCRA BA Completion Report
 PG&E Topock Compressor Station,
 Needles, California

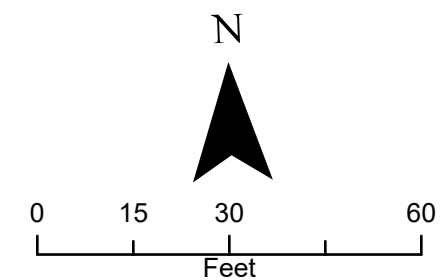
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- Target Action Area
- NTCRA Disturbance Area (4.77 acres)
- Previously Disturbed (2.21 acres)
- NTCRA Excavation (2.53 acres)

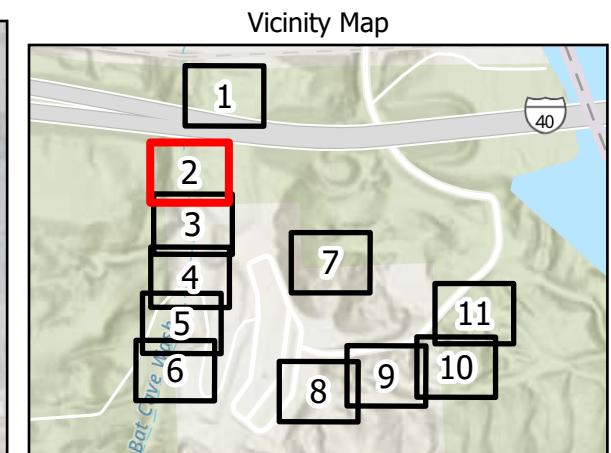
Removed Plant Species





- blue palo verde
- catclaw acacia
- honey mesquite






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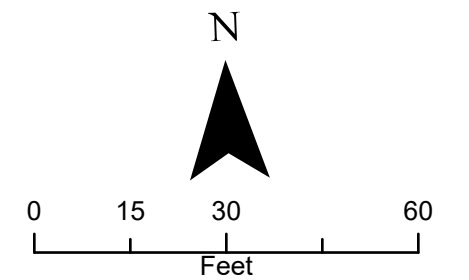
FIGURE 4-1
NTCRA Disturbance Area
 Soil NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



-  Target Action Area
-  NTCRA Disturbance Area (4.77 acres)
-  Previously Disturbed (2.21 acres)
-  NTCRA Excavation (2.53 acres)

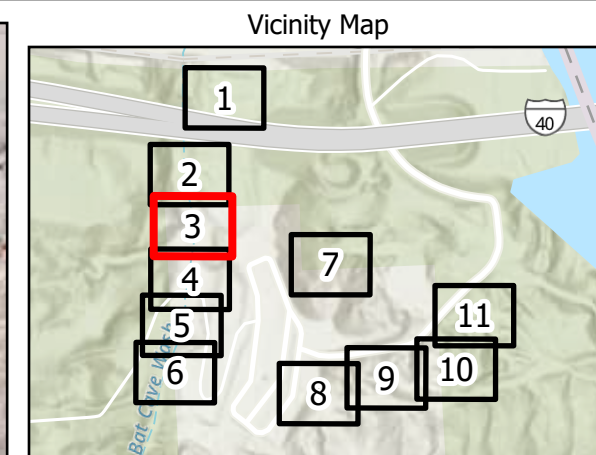
Removed Plant Species

-  blue palo verde
-  catclaw acacia
-  honey mesquite



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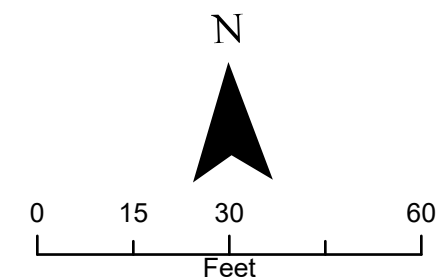
FIGURE 4-2
NTCRA Disturbance Area
 Soil NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



- Target Action Area
- NTCRA Disturbance Area (4.77 acres)
- Previously Disturbed (2.21 acres)
- NTCRA Excavation (2.53 acres)

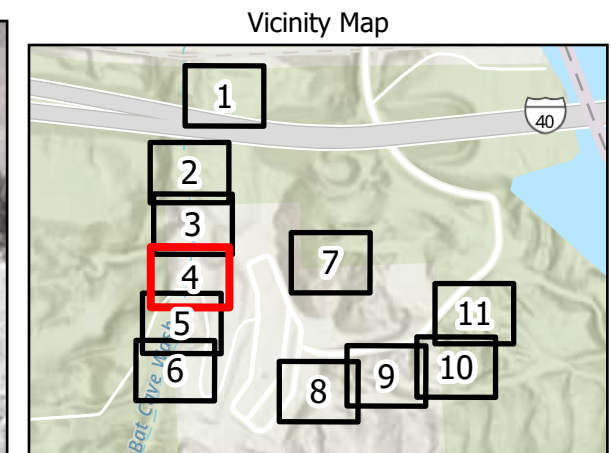
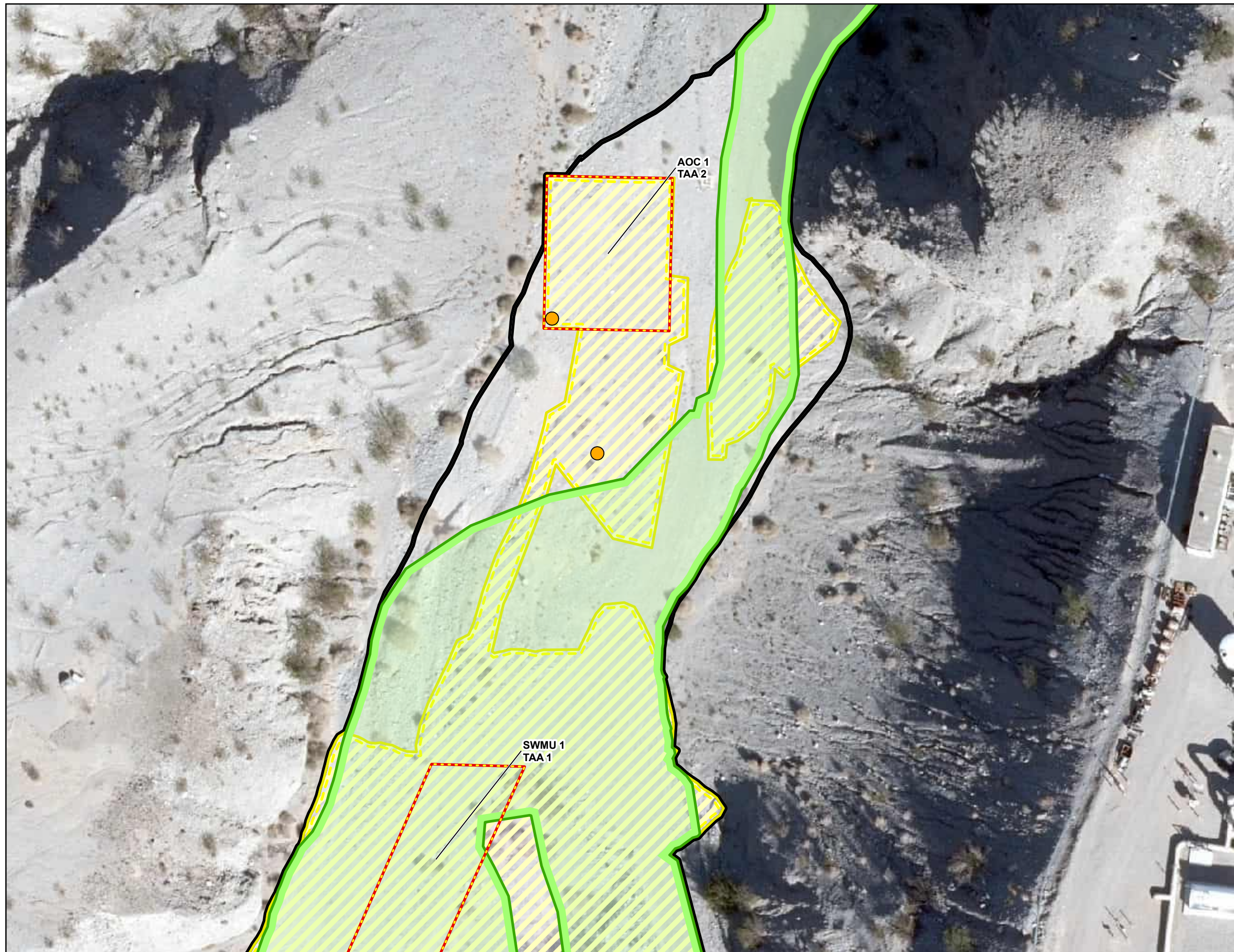
Removed Plant Species

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- catclaw acacia
- honey mesquite



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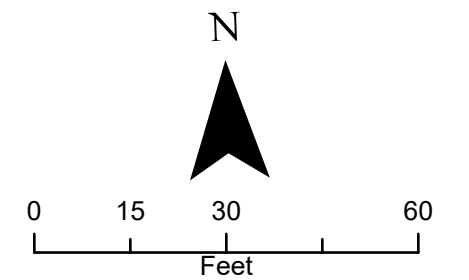
FIGURE 4-3
NTCRA Disturbance Area
 Soil NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



- Target Action Area
- NTCRA Disturbance Area (4.77 acres)
- Previously Disturbed (2.21 acres)
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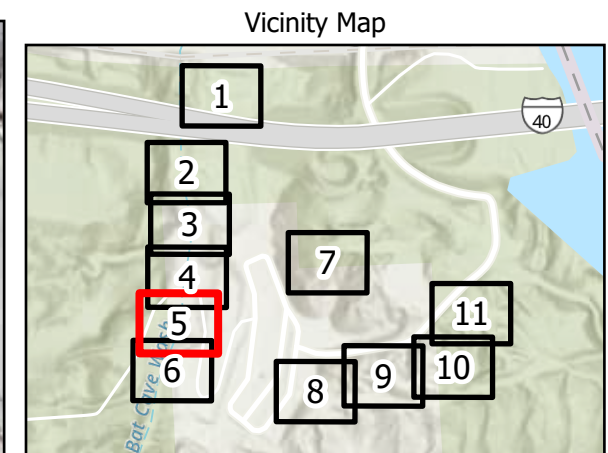
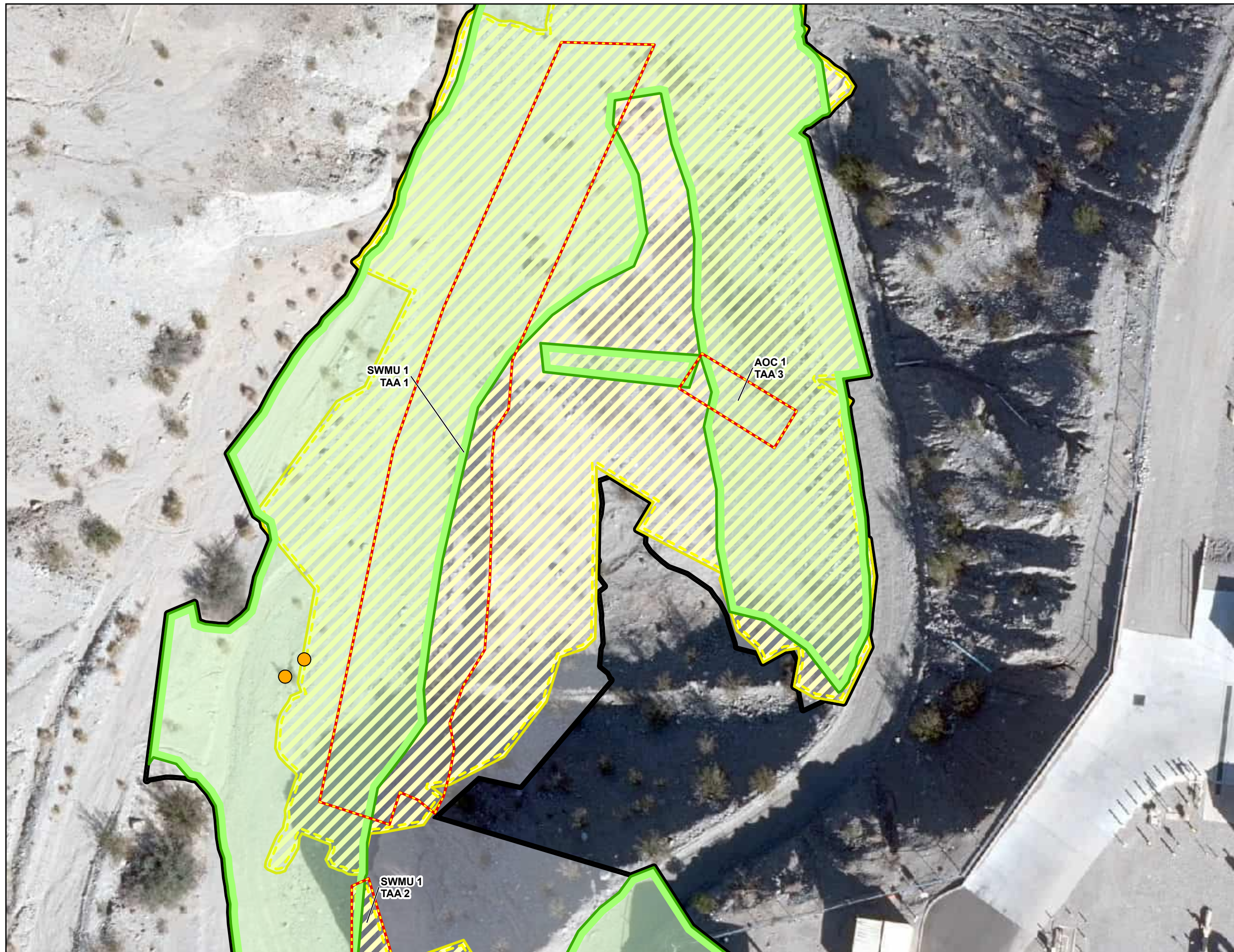
Removed Plant Species

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- catclaw acacia
- honey mesquite



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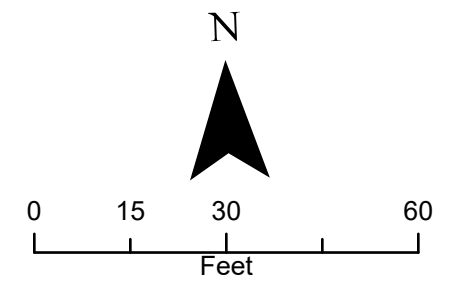
FIGURE 4-4
NTCRA Disturbance Area
 Soil NTCRA BA Completion Report
PG&E Topock Compressor Station
Needles, California



- Target Action Area
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- Previously Disturbed (2.21 acres)
- NTCRA Excavation (2.53 acres)

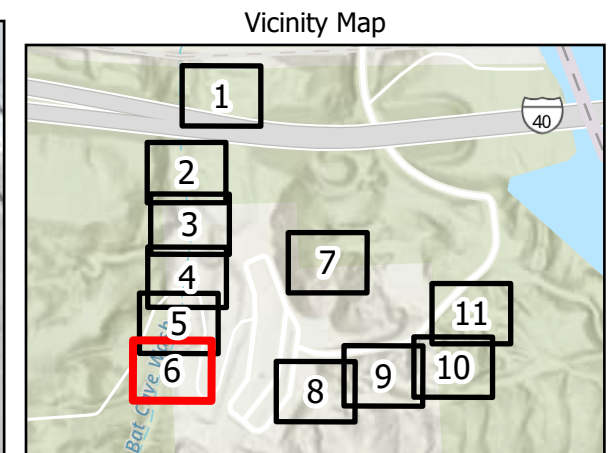
Removed Plant Species

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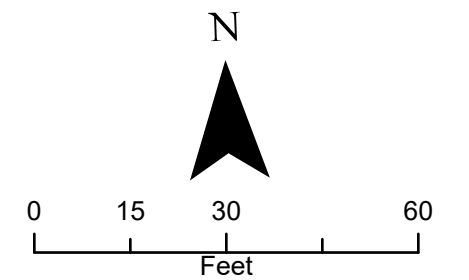
FIGURE 4-5
NTCRA Disturbance Area
 Soil NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



- Target Action Area
- NTCRA Disturbance Area (4.77 acres)
- Previously Disturbed (2.21 acres)
- NTCRA Excavation (2.53 acres)

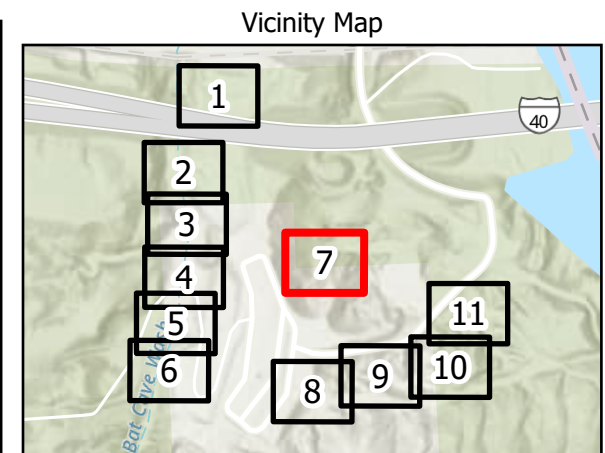
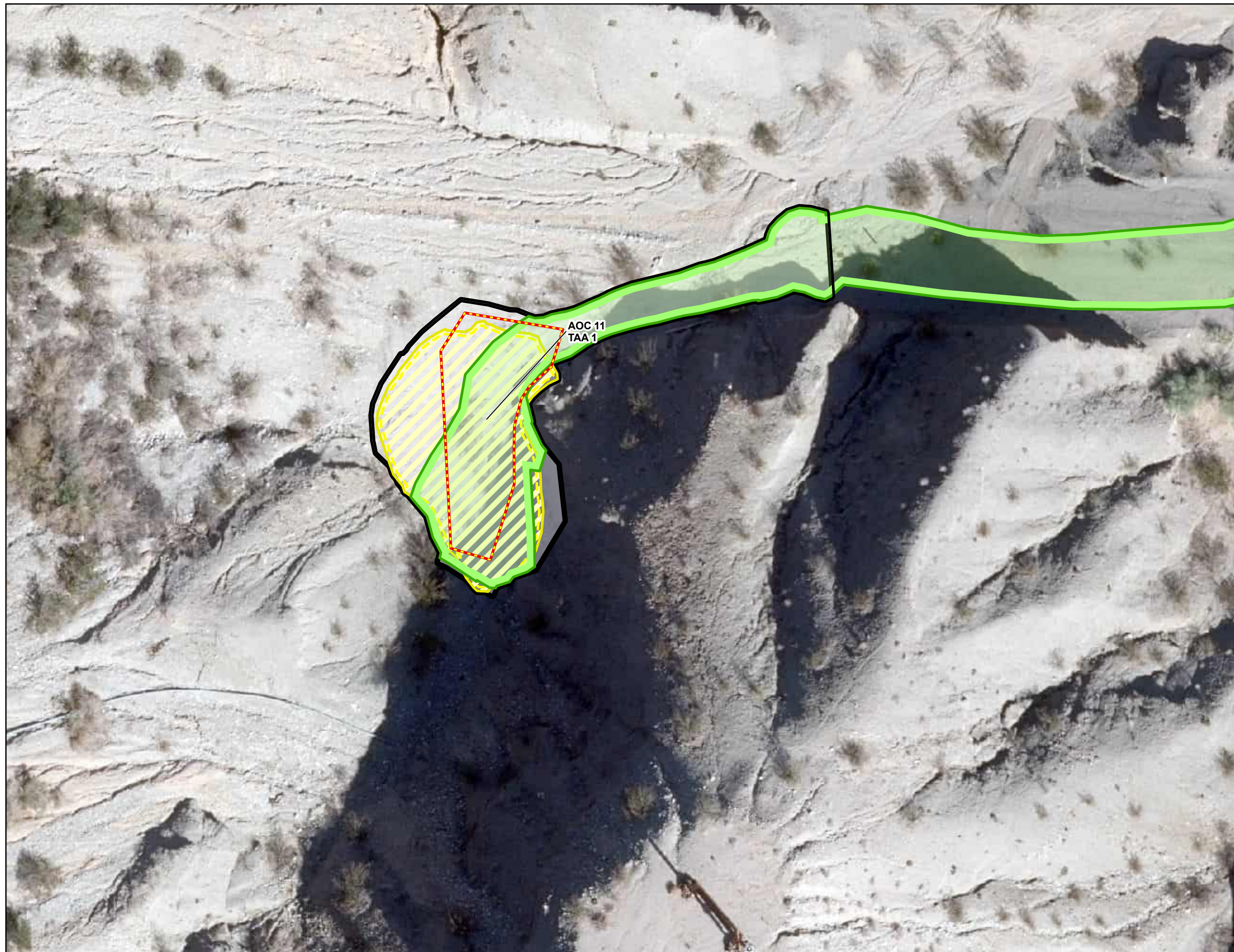
Removed Plant Species





- blue palo verde
- catclaw acacia
- honey mesquite






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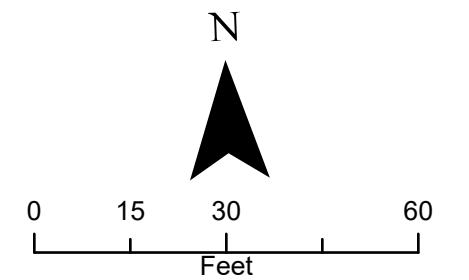
FIGURE 4-6
NTCRA Disturbance Area
 Soil NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



-  Target Action Area
-  NTCRA Disturbance Area (4.77 acres)
-  Previously Disturbed (2.21 acres)
-  NTCRA Excavation (2.53 acres)

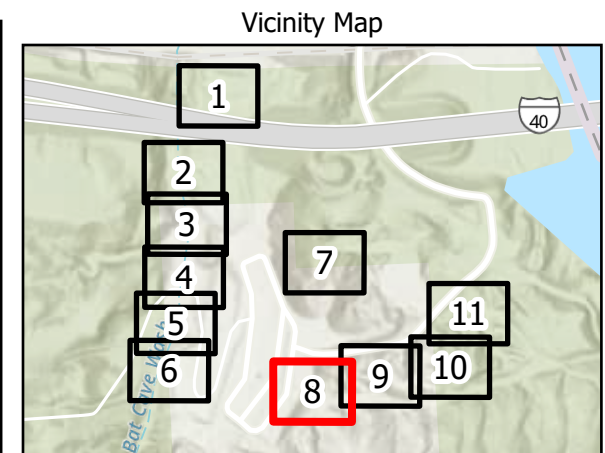
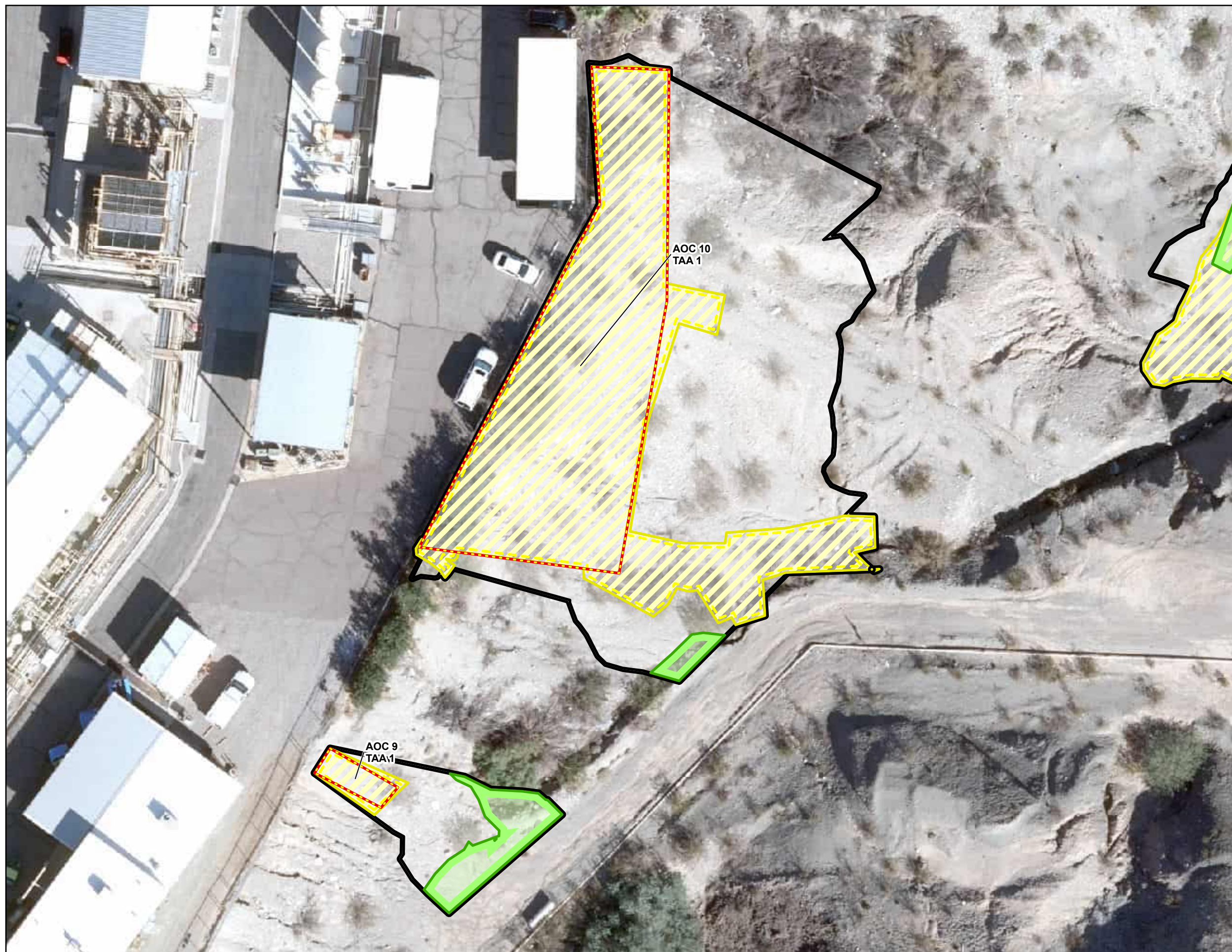
Removed Plant Species








-  blue palo verde
-  catclaw acacia
-  honey mesquite

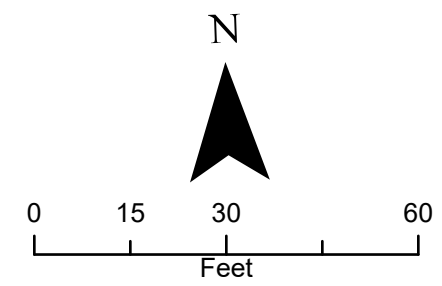


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FIGURE 4-7
NTCRA Disturbance Area
 Soil NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California

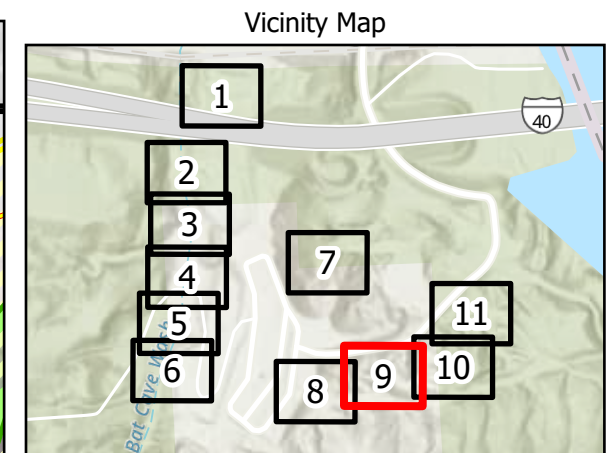
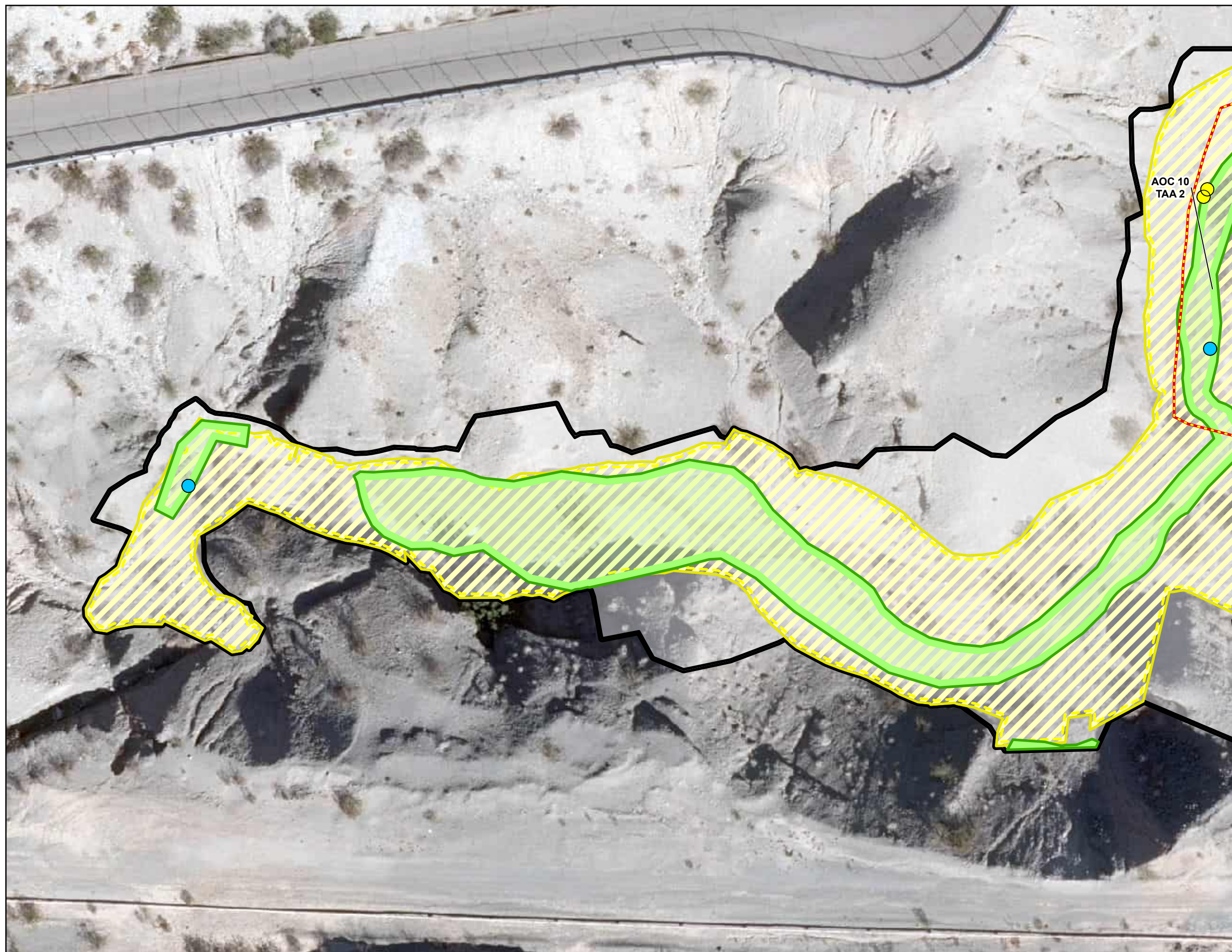


-  Target Action Area
 -  NTCRA Disturbance Area (4.77 acres)
 -  Previously Disturbed (2.21 acres)
 -  NTCRA Excavation (2.53 acres)
- Removed Plant Species**
-  blue palo verde
 -  catclaw acacia
 -  honey mesquite



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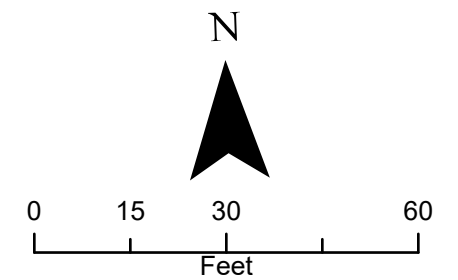
FIGURE 4-8
NTCRA Disturbance Area
 Soil NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



- Target Action Area
- NTCRA Disturbance Area (4.77 acres)
- Previously Disturbed (2.21 acres)
- NTCRA Excavation (2.53 acres)

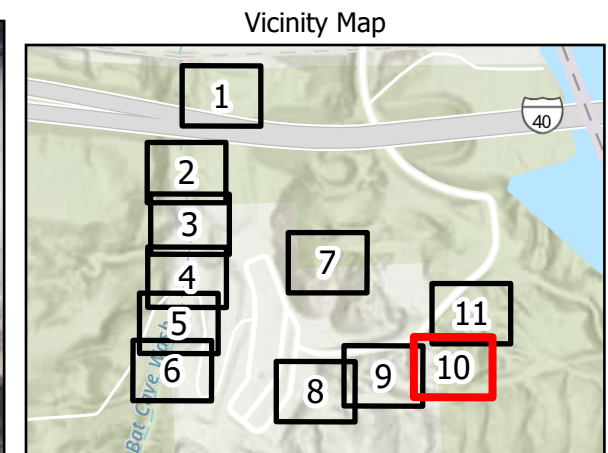
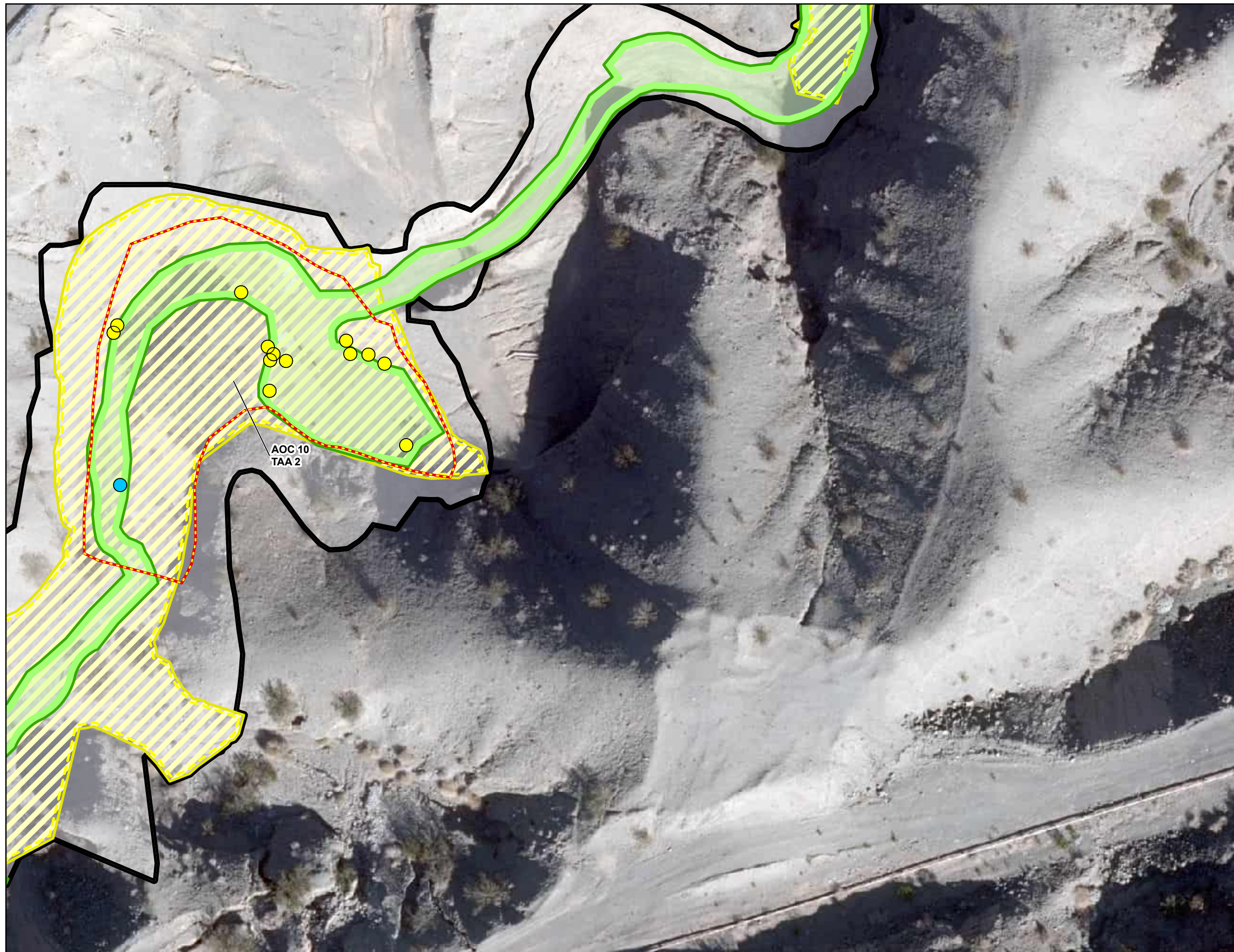
Removed Plant Species

- blue palo verde
- catclaw acacia
- honey mesquite



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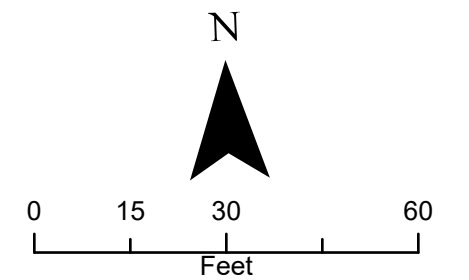
FIGURE 4-9
NTCRA Disturbance Area
 Soil NTCRA BA Completion Report
PG&E Topock Compressor Station
Needles, California



- Target Action Area
- NTCRA Disturbance Area (4.77 acres)
- Previously Disturbed (2.21 acres)
- NTCRA Excavation (2.53 acres)

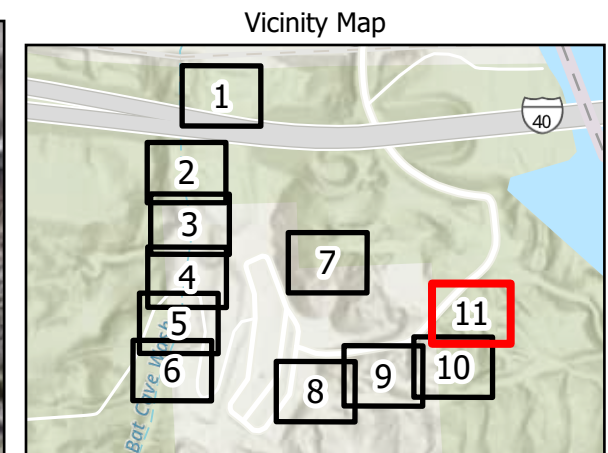
Removed Plant Species

- blue palo verde
- catclaw acacia
- honey mesquite



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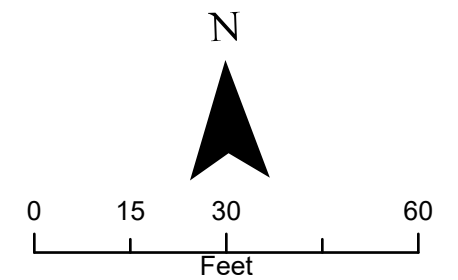
FIGURE 4-10
NTCRA Disturbance Area
 Soil NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



- Target Action Area
- NTCRA Disturbance Area (4.77 acres)
- Previously Disturbed (2.21 acres)
- NTCRA Excavation (2.53 acres)

Removed Plant Species

- blue palo verde
- catclaw acacia
- honey mesquite



Esri Community Maps Contributors, California State Parks, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, USFWS, Esri, NASA, NGA, USGS, FEMA

FIGURE 4-11
NTCRA Disturbance Area
 Soil NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California

Appendix A

Summary of Compliance with Soil NTCRA Biological Assessment Conservation Measures

Table A-1. Summary of Compliance with Soil NTCRA Biological Assessment (BA) Conservation Measures

BA Item Number	Text of Conservation Measure	Discussion of Measure Compliance
General Conservation Measures		
1	All project activities will be conducted in a manner that avoids take of a federally listed species. Take is defined to include any harm or harassment, including significant habitat modification or degradation that actually kills or injures listed wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Should a listed species enter the project site or become harmed or killed by project activities, the project will be shut down and the USFWS and BLM will be consulted. Impacts to habitat will also be minimized to the maximum possible extent.	There was no take of federally listed species during the Soil NTCRA project. The mandatory Worker Environmental Awareness Training (WEAT) for PG&E employees, contractors, and consultants that were involved in the remedy construction project and the accompanying brochures addressed this measure, specifically the penalty associated with a take of listed species. Biologists conducted site-specific surveys prior to and during construction.
2	PG&E will designate a field contact representative (FCR) who will be responsible for overseeing compliance with the mitigation measures. The FCR must be onsite during all construction activities. The FCR will have authority to halt activities that are in violation of the mitigation measures and/or pose a danger to listed species. Work will proceed only after hazards to the listed species are removed, the species is no longer at risk and the project biologist approves to do so. The FCR will have a copy of the mitigation measures when work is being conducted on the site. The FCR may be a project manager, PG&E representative, or a biologist.	All Soil NTCRA field activities were conducted under the supervision of an FCR. There were 11 PG&E employees, contractors, and biologists that were trained to function as FCRs. See Section 4.3 for additional information.
3	PG&E will have a qualified biologist responsible for assisting crews in compliance with the mitigation measures, performing surveys in front of the crew as needed to locate and avoid listed species, and monitoring compliance. A qualified biologist will conduct preconstruction surveys for listed species in work areas immediately prior to initiation of ground-disturbing activities in areas of habitat for the species. The survey will provide 100 percent coverage of the designated work area, to the extent practicable. Any desert tortoise burrows and pallets outside of, but near, the work area footprint will be flagged at that time so that they may be avoided during work activities. At conclusion of work activities, all flagging will be removed.	The qualified, onsite biologists conducted pre-construction surveys of the entire approved work areas prior to ground disturbing activities and completed daily biology checks at each work site. No tortoises or their burrows were identified during NTCRA construction. See Section 4.2 for additional information.
4	Listed species, including the desert tortoise, will not be handled or harassed. Encounters with a listed species will be reported to the project biologist and BLM Lake Havasu biologist(s). These biologists will maintain records of all listed species encountered during project activities. This information for each individual will include: the locations (narrative, vegetation type, and maps) and dates of observations; general conditions and health; any apparent injuries and state of healing; and diagnostic markings (i.e., identification numbers on desert tortoises or marked lateral scutes).	Listed species were not encountered during the Soil NTCRA construction. The mandatory WEAT for all PG&E employees, contractors, and consultants that were involved in the Soil NTCRA project and the accompanying brochures, addressed this measure.

BA Item Number	Text of Conservation Measure	Discussion of Measure Compliance
5	All PG&E employees and the contractors involved with the proposed project will be required to attend PG&E's threatened and endangered species education program prior to initiation of activities. New employees and contractors will receive training prior to working onsite.	PG&E conducted a mandatory WEAT for its employees, contractors, and consultants that were involved in the Soil NTCRA project prior to field work. See Section 4.1 of this report for additional information on the WEAT.
6	To the maximum extent possible access routes and staging areas will be sited within existing designated access routes and previously disturbed or barren areas to limit new surface disturbance.	Existing access routes were incorporated into the NTCRA design with minimal new access routes required. Existing disturbed areas were utilized for staging areas and soil storage.
7	Existing routes of travel to and from the proposed project site will be used. Cross-country vehicle and equipment use will be prohibited.	Only existing approved access routes were used and any new access routes were approved by BLM and HNWR when the designated work areas were expanded (See conservation measure (CM) 16 below for additional information. No cross-country travel occurred during construction.
8	Trash and food items will be contained in closed containers and removed daily to reduce attractiveness to opportunistic predators such as common ravens (<i>Corvus corax</i>), coyotes (<i>Canis latrans</i>), and feral dogs.	The mandatory WEAT for PG&E employees, contractors, and consultants for the Soil NTCRA construction project and the accompanying brochures, addressed this measure. Monitoring for compliance with this measure was conducted throughout the project. Any trash found was immediately removed. Trash containers lids were monitored to ensure they remained closed.
9	To minimize effects, lights will be angled toward the ground, reduced in intensity to levels compatible with safety concerns, and limited in duration of usage. The hue of lighting will be that which is most compatible with and least disturbing to wildlife.	The Lighting Plan developed for the soil processing yard (SPY) for the groundwater remedy (Jacobs 2019) was implemented for the NTCRA project. The plan described measures regarding seasonal restrictions, lighting angles, shielding, and lighting hues least damaging to wildlife. Lighting at the SPY was only used during the early morning hours and turned off during the day.
10	Employees and contractors will not bring pets to the project site.	No pets were brought onsite during the Soil NTCRA. The mandatory WEAT for PG&E employees, contractors, and consultants that were involved in the remedy construction project and the accompanying brochures, addressed this measure. Compliance monitoring for this requirement was conducted throughout the project.
11	Firearms are prohibited from the project site, except as required for security employees.	No firearms were brought onsite during the Soil NTCRA. The mandatory WEAT for PG&E employees, contractors, and consultants that were involved in the remedy construction project and the accompanying brochures, addressed this measure. Compliance monitoring for this requirement was conducted throughout the project.

BA Item Number	Text of Conservation Measure	Discussion of Measure Compliance
12	Desert tortoises commonly seek shade during the hot portions of the day. Employees and contractors will be required to check under their equipment or vehicle before it is moved. If a desert tortoise or other wildlife is encountered under vehicles or equipment, the vehicle will not be moved until the animal has voluntarily moved to another location, or to a safe distance from the parked vehicle.	This requirement was followed throughout the Soil NTCRA and no desert tortoise or other wildlife was encountered under equipment or vehicles. The mandatory WEAT for PG&E employees, contractors, and consultants that were involved in the remedy construction project and the accompanying brochures, addressed this measure. Compliance monitoring for this requirement was conducted throughout the project.
13	Upon completion, all unused material and equipment will be removed from the site. This condition does not apply to fenced areas.	Throughout the Soil NTCRA, all unused material, equipment, and SWPPP BMPs were removed from the work area after completion of construction at each location. The final conditions were verified after completion using site walks with agency and tribal stakeholders to identify 'punch list' items whose subsequent completion documented final compliance with this measure.
14	Palo verde, ocotillo, mesquite, catclaw acacia, and smoketree are considered sensitive by the BLM. To the extent practicable, these species will be avoided. No more than 20% of the tree canopy may be trimmed if avoidance is not possible. If avoidance and minimal trimming is not possible, these species will be replaced.	BLM protected plant species were protected where possible. If full avoidance was not possible, protected plants were trimmed to avoid construction impacts. In some cases, avoidance and trimming only were not options during construction to remove contamination under the tree. Section 6.1 of this report provides details for the palo verde, mesquite and catclaw acacias that were removed. Section 3.1 discusses one incidental impact to a catclaw acacia.
15	The area of disturbance will be confined to the smallest practical area, considering topography, placement of facilities, location of burrows, nesting sites or dens, public health and safety, and other limiting factors. To the extent possible, previously disturbed areas within the project sites will be used locations of trailers, parking of vehicles, and any other surface-disturbing activity. The qualified biologist, in consultation with the PG&E, will ensure compliance with these measures.	Designated work areas were designed in the Soil determined based on the Soil NTCRA Work Plan (Jacobs 2022) to use existing disturbed areas where possible. Pre-activity biological surveys were conducted and a PG&E biologist and field biologist reviewed the contractors' work requests. The on-site biologist participated in field meetings to walk the sites and discuss means and methods to delineate the work boundaries and protect biological resources. This approach was used to ensure that the work boundaries did not extend beyond the approved designated work areas and to reduce impacts to habitat where possible. Active nesting sites were avoided and impacts to protected plants were minimized.

BA Item Number	Text of Conservation Measure	Discussion of Measure Compliance
16	<p>Activities will be restricted to the designated work areas that are determined by the designated work areas. If unforeseen circumstances require project expansion outside of the designated work area, the potential expanded work areas will be surveyed for listed species prior to use of the area. All appropriate mitigation measures will be implemented within the expanded work areas based on the judgment of the project biologist. Work outside of the original designated work area will proceed only after receiving written approval from the BLM and USFWS describing the exact location of the expansion.</p>	<p>Designated work areas were determined based on Soil NTCRA Work Plan that were informed by biological surveys and approved by the agencies. As the construction progressed, the need to expand work areas in key locations was needed.. PG&E received approvals from USFWS and HNWR to expand the Designated Work Areas to accommodate the clean-up on four separate occasions. See Section 6.2.3 for additional information.</p>
17	<p>All open holes and trenches will be inspected for trapped desert tortoises at the beginning, middle, and end of the workday, at a minimum. During excavation of trenches or holes, earthen ramps will be provided to facilitate the escape of any wildlife species that may inadvertently become entrapped. If desert tortoises are trapped, the project biologist will be notified immediately. The desert tortoise will be allowed to escape before work continues in that location. All open trenches and holes will be covered if an earthen ramp cannot be constructed. A final inspection of the open trench segment will also be made immediately before back filling.</p>	<p>Any steep walled, enclosed excavation areas were inspected for trapped desert tortoises throughout the workday. Earthen ramps were provided for these excavations sites or they were covered to prevent tortoises from entering. The mandatory WEAT for PG&E employees, contractors, and consultants that were involved in the remedy construction project, and the accompanying brochures, also addressed this measure. No desert tortoise was encountered during the Soil NTCRA project.</p>
18	<p>All open, vertical pipe segments (such as those used for fence support or other purposes) will be capped or otherwise covered when work activity is not occurring at the site. The capping/covering of the pipes is needed to prevent birds from entering the pipes. Uncapped pipes represent a threat to birds who may enter them and then be unable to exit. Capping the vertical pipes will avoid unintended impacts to birds.</p>	<p>The mandatory WEAT for PG&E employees, contractors, and consultants that were involved in the remedy construction project, and the accompanying brochures, also addressed this measure. No vertical pipes were used for Soil NTCRA field activities.</p>
19	<p>Employees and contractors will exercise caution when traveling within the Action Area. To minimize the likelihood for vehicle strikes of listed species, speed limits when commuting on designated access roads within the Action Area will not exceed 15 miles per hour on unpaved roads.</p>	<p>The mandatory WEAT for PG&E employees, contractors, and consultants that were involved in the Soil NTCRA project, and the accompanying brochures, also addressed the measure of safe travel to and from the Action Area.</p>

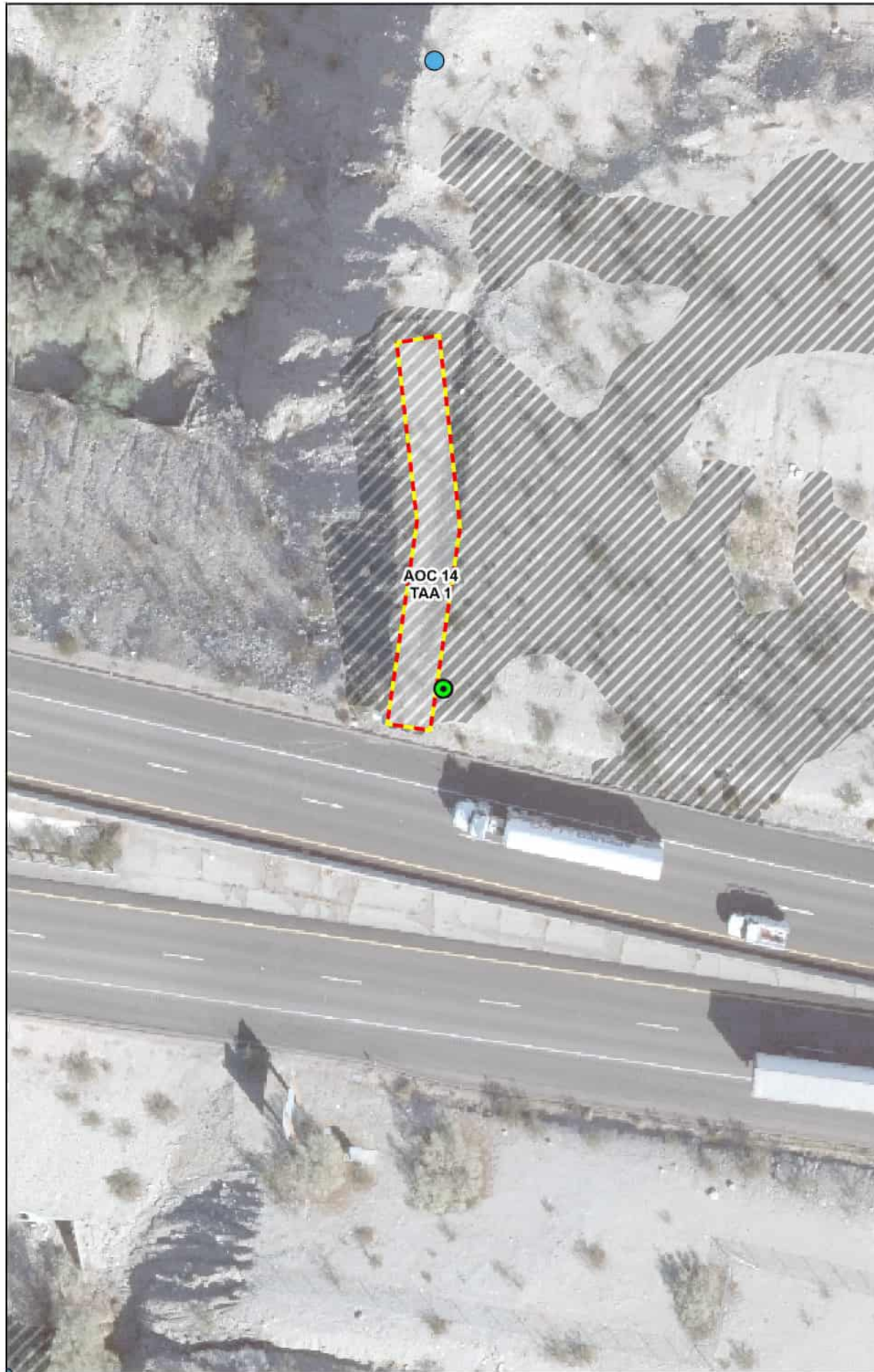
BA Item Number	Text of Conservation Measure	Discussion of Measure Compliance
20	<p>For emergency situations involving a spill or any other immediate safety hazard, PG&E will notify the BLM within 48 hours. As a part of this emergency response, the BLM may require specific measures to protect listed species. During cleanup and repair, the agencies may also require measures to recover damaged habitats.</p>	<p>As reported in the Monthly Progress Reports, there were two releases outside the containment area. On July 25, 2023, a third-party mechanic was onsite to conduct maintenance on an excavator located on Pipeline B Access Road. The maintenance work itself was conducted on plastic sheeting, however, approximately 2 ounces of hydraulic oil dripped from the nearby mechanic's truck onto the dirt. Impacted soil (about 2 gallons) was removed and containerized in a 5-gallon bucket with lid. On August 23, 2023, a release occurred when a super ten dump truck departed the NTCRA AOC10-1 ramp. The forward movement caused the diesel tank to slosh and release approximately 4 ounces of diesel from the cap and onto the dirt ramp. Approximately 5 gallons of impacted soil were removed and placed into a bucket along with 6 sorbent pads used to clean off the tank.</p>
21	<p>Where necessary, PG&E will restore disturbed areas in a manner that will assist in the reestablishment of biological values within the disturbed areas. Methods of such restoration will include the reduction of erosion control, planting with appropriate native shrubs, and scattering of bladed vegetation and rocks across the disturbed area, depending upon the appropriateness or effectiveness in a given area.</p>	<p>PG&E restored the topography of the ground, where possible, to pre-construction topography. PG&E is currently discussing options for on-site or off-site revegetation with Agencies and Stakeholders.</p>
22	<p>Within 60 days of completion of construction activities, the FCR and biologist will prepare a brief report for the BLM documenting the effectiveness and practicality of the mitigation measure and making recommendations for modifying the measures to enhance species protection, as appropriate. The report will also provide information on survey and monitoring activities, observed listed species if encountered, and the actual acreage disturbed by the activities, if any.</p>	<p>This Completion Report has been prepared to satisfy compliance with this measure. A discussion of the effectiveness and practicality of the mitigation measures is included in Section 7. No recommendations for modifying any of the measures to enhance species protection were deemed necessary,</p>
23	<p>Construction during the potential nesting season for migratory birds will require preconstruction surveys for nesting pairs, nests, and eggs. These preconstruction surveys will occur in areas proposed for any vegetation removal and active nesting areas flagged. If nesting birds are detected, vegetation removal will be avoided during the nesting season. All construction activity up to 500 feet of active nesting areas will be prohibited until the nesting pair/young have vacated the nests. Buffers for active nests will be determined by the PG&E biologist based on the buffers included in the Topock Bird Impact Avoidance and Minimization Plan, Topock Groundwater Remediation Project (CH2M, 2014)</p>	<p>Prior to mobilization, onsite biologists conducted pre-construction surveys to ensure there were no nesting birds at each site during the nesting bird season from March 15 to September 30th. After the pre-construction surveys, regular monitoring during construction, as documented in daily reports, was used to ensure that any new nesting birds were identified and protected with appropriate construction buffers. During the duration of the project one active nest, an ash-throated flycatcher nest, was observed within the project area. Construction buffers were established to protect the nest until the fledglings left the nesting area.</p>

BA Item Number	Text of Conservation Measure	Discussion of Measure Compliance
24	<p>Upon locating an individual of a dead or injured listed species, PG&E will make initial notification to the BLM and USFWS within three working days of its finding. The notification must be made by and writing to the Lake Havasu BLM Office (2610 Sweetwater Avenue, Lake Havasu City, Arizona 86406, 928-505-1200) and the USFWS's Phoenix AESO Office (9828 North 31st Avenue #C3, Phoenix, Arizona 95051, 602-242-0210). The report will include the date and time of the finding or incident (if known), location of the carcass, a photograph, cause of death (if known), and other pertinent information. Animals injured through PG&E activities will be transported to a qualified veterinarian for treatment at the expense of PG&E. If an injured animal recovers, the USFWS and the BLM will be contacted for final disposition of the animal.</p>	<p>The mandatory WEAT for PG&E employees, contractors, and consultants that were involved in the remedy construction project, and the accompanying brochures, addressed this measure. During the Soil NTCRA, no dead or injured listed species were encountered.</p>
25	<p>Photographic documentation of preconstruction habitat conditions will occur at all major work areas, including TAAs, staging areas, and newly developed access roads, prior to the start of construction and after construction activities are performed.</p>	<p>Pre-construction photographs were taken of work areas. After completion of the Soil NTCRA, post construction photographs were repeated at the same locations as the preconstruction photo points to document post-construction conditions. See Section 6.4 for additional information and Appendix B for a mapbook of the photos.</p>
Species-Specific Conservation Measures		
SWFL 1	<p>Based on the results of PG&E protocol level surveys, PG&E will only conduct pre-construction nesting bird surveys for southwestern willow flycatcher in habitat where there has been a previous detection of southwestern willow flycatcher as noted in Figure 6 of the BA.</p>	<p>Soil NTCRA activities did not occur in or within 250' of southwestern willow flycatcher (SWFL) habitat. Therefore, pre-construction nesting bird surveys for SWFL were not needed.</p>

BA Item Number	Text of Conservation Measure	Discussion of Measure Compliance
SWFL 2	<p>Should soil management activities that use heavy equipment be needed between May 15 and July 17 near the southwestern willow flycatcher habitat at the terminus of BCW identified in Figure 6, preconstruction surveys will be required. Preconstruction surveys will consist of passive listening surveys at construction locations that use heavy equipment within 250 feet of southwestern willow flycatcher habitat. Passive listening surveys will be performed by the Biological Monitor for the project who will familiarize themselves with the vocalizations and identification of southwestern willow flycatcher. Passive listening surveys will involve the biologist arriving at the construction location each morning before crews arrive and passively walking around the site listening and watching for flycatchers. Surveys should take place an hour before sunrise up to 10am. At least 30 minutes should be spent observing for southwestern willow flycatcher before crews arrive at the site. Passive surveys will occur at each construction location or 30 meters apart. For ongoing construction, locations for passive surveys can rotate every two days. For example, if there are two locations with on-going construction only one location will have passive surveys completed each day. Should a southwestern willow flycatcher be observed, activities at the location will be suspended. USFWS will be notified and consulted before activities can resume. Passive surveys will occur between May 15 and July 17 for southwestern willow flycatcher.</p>	<p>Soil NTCRA activities did not occur in or within 250' of southwestern willow flycatcher (SWFL) habitat. Therefore, pre-construction nesting bird surveys for SWFL were not needed.</p>
YRR 1	<p>Wetland or marshes with potential Yuma Ridgway's rail habitat near the NTCRA activities will be surveyed by a USFWS-permitted biologist for Yuma Ridgway's rail according to the protocol (USFWS, 2017) established by the USFWS. The survey will occur the year that the NTCRA is in construction. The survey reports will be provided to the BLM Lake Havasu Field Office and to the USFWS's Phoenix Field Office.</p>	<p>Protocol level Yuma Ridgway's rail surveys were completed jointly with HNWR and PG&E's on-site biologists prior to construction activities commencing within 300' of Yuma Ridgway's rail habitat. Survey results were negative. See Section 5.1.3 for more information.</p>

Appendix B

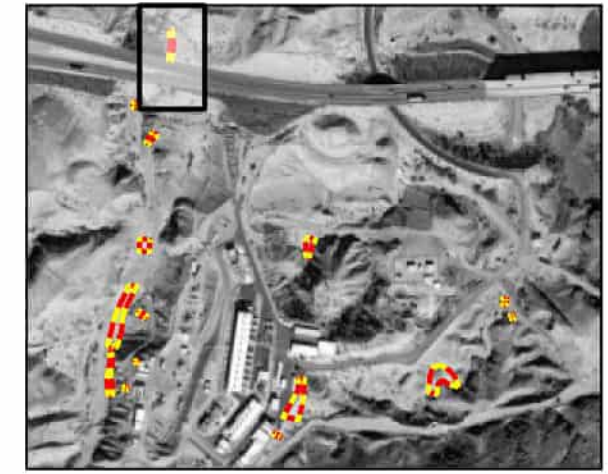
Paired Pre- and Post-Construction Photographs



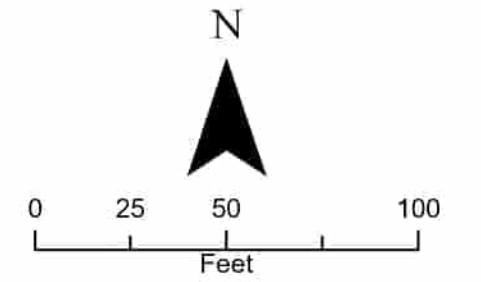
Pre-Construction Photo



Post-Construction Photo

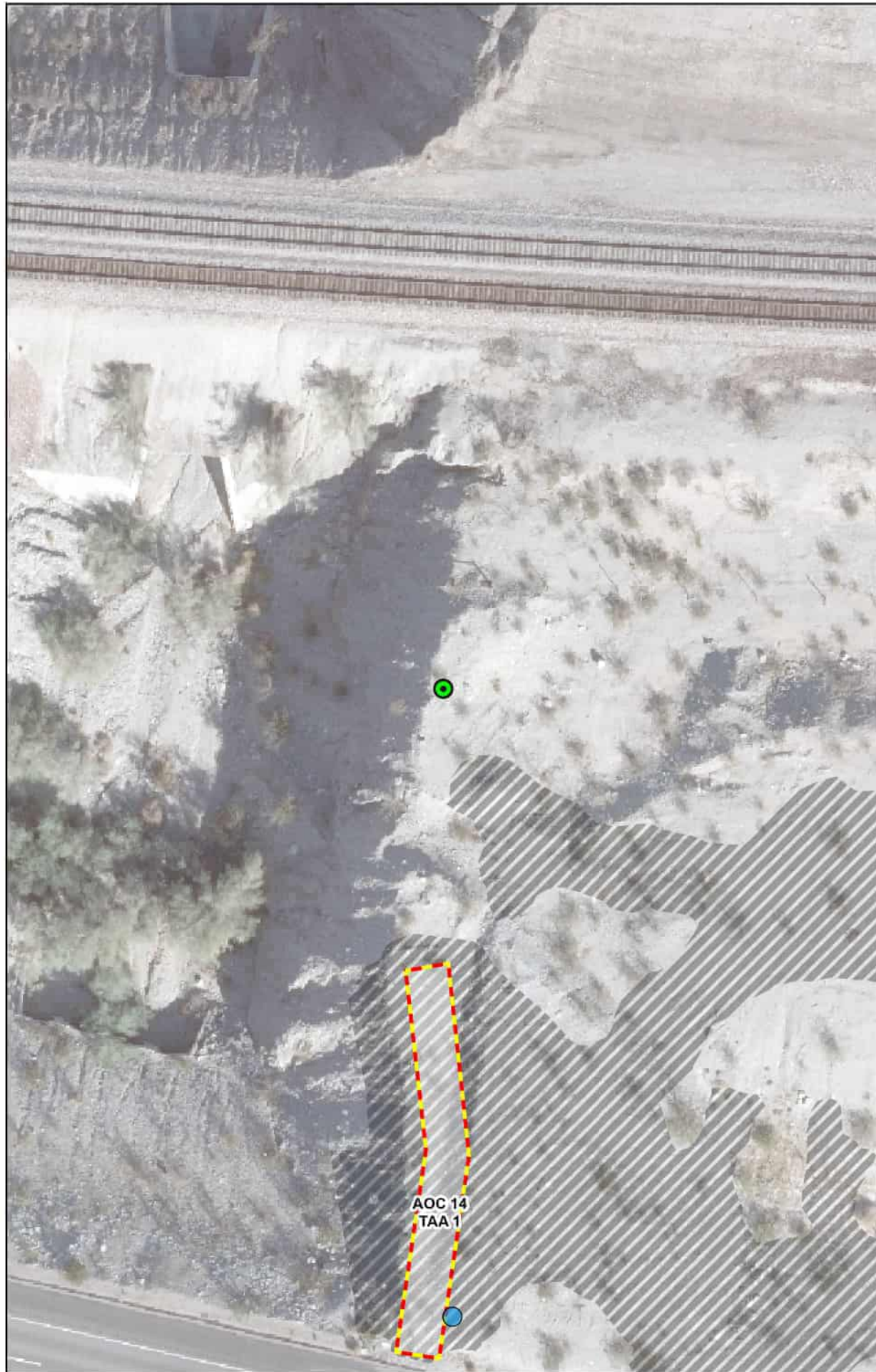


- Construction Photo Point (Selected)
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- Target Action Area
- NTCRA Disturbance Area



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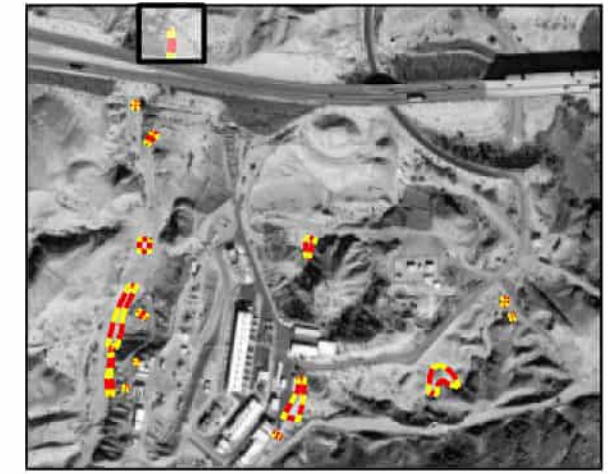
APPENDIX B-1
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



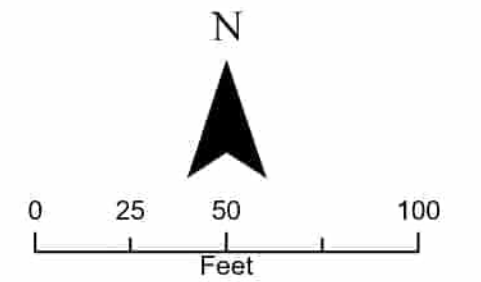
Pre-Construction Photo



Post-Construction Photo



- Construction Photo Point (Selected)
- Construction Photo Point (Other)
- Target Action Area
- NTCRA Disturbance Area



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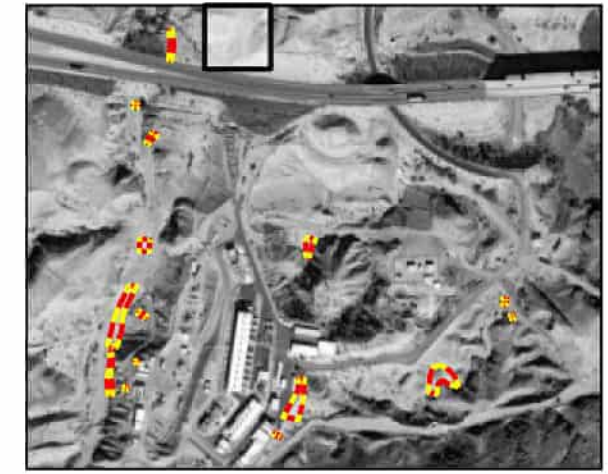
APPENDIX B-2
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



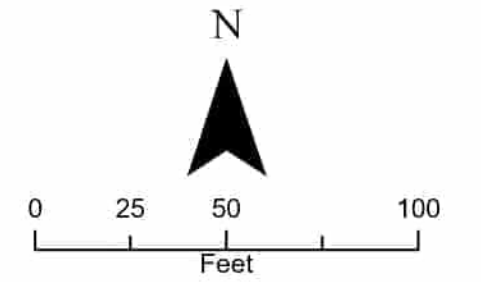
Pre-Construction Photo



Post-Construction Photo

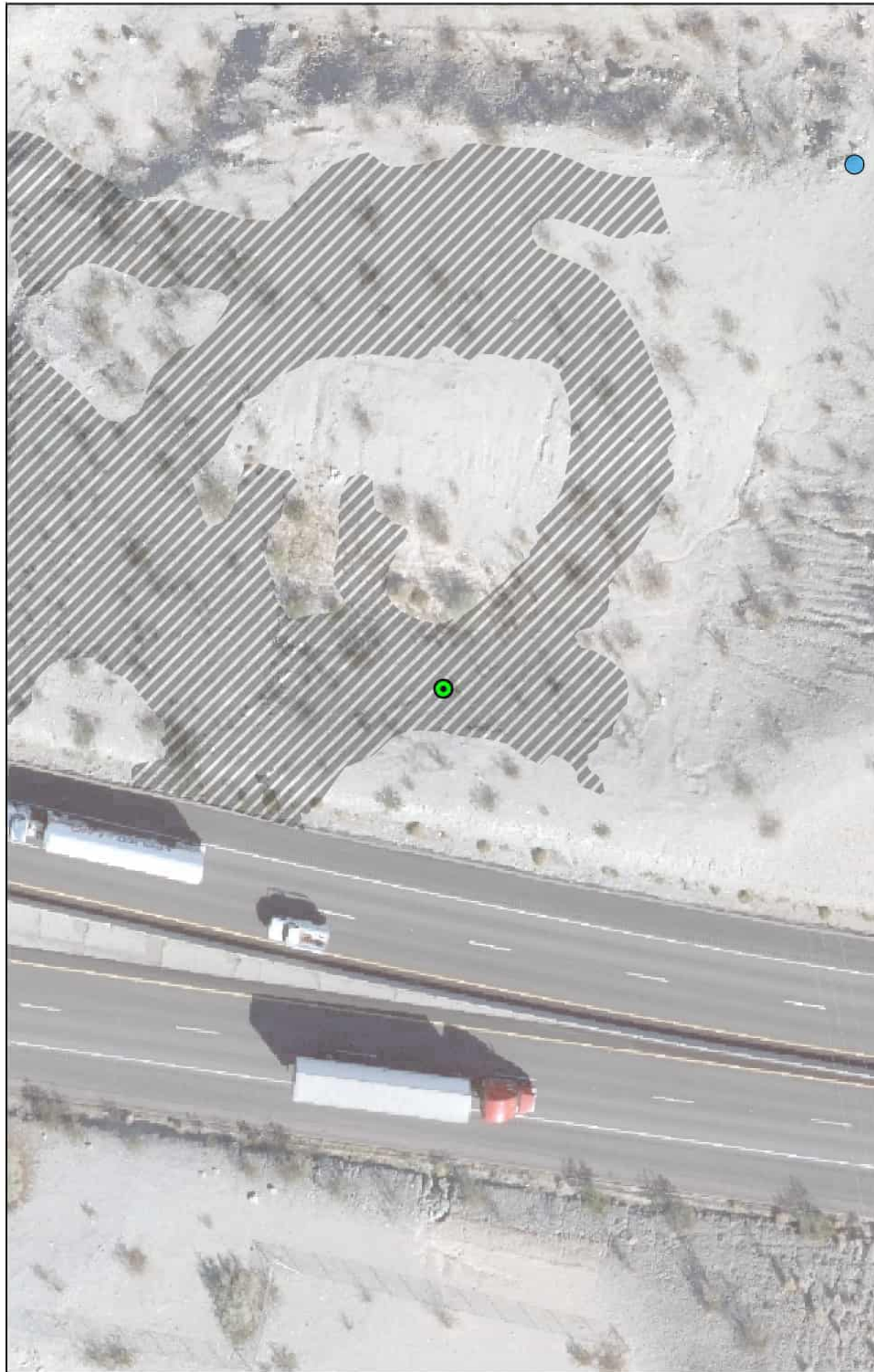


- Construction Photo Point (Selected)
- Construction Photo Point (Other)
- Target Action Area
- NTCRA Disturbance Area



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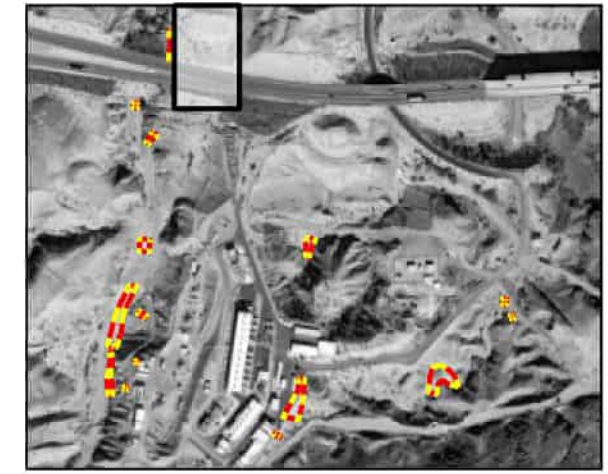
APPENDIX B-3
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



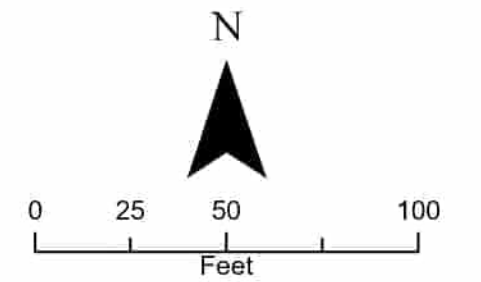
Pre-Construction Photo



Post-Construction Photo



- Construction Photo Point (Selected)
- Construction Photo Point (Other)
- Target Action Area
- NTCRA Disturbance Area



Maxar

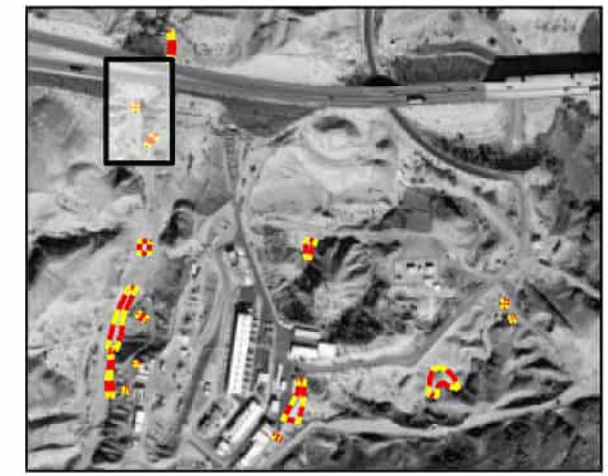
APPENDIX B-4
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



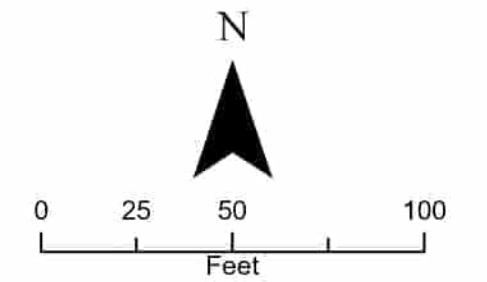
Pre-Construction Photo



Post-Construction Photo



- Construction Photo Point (Selected)
- Construction Photo Point (Other)
- Target Action Area
- NTCRA Disturbance Area

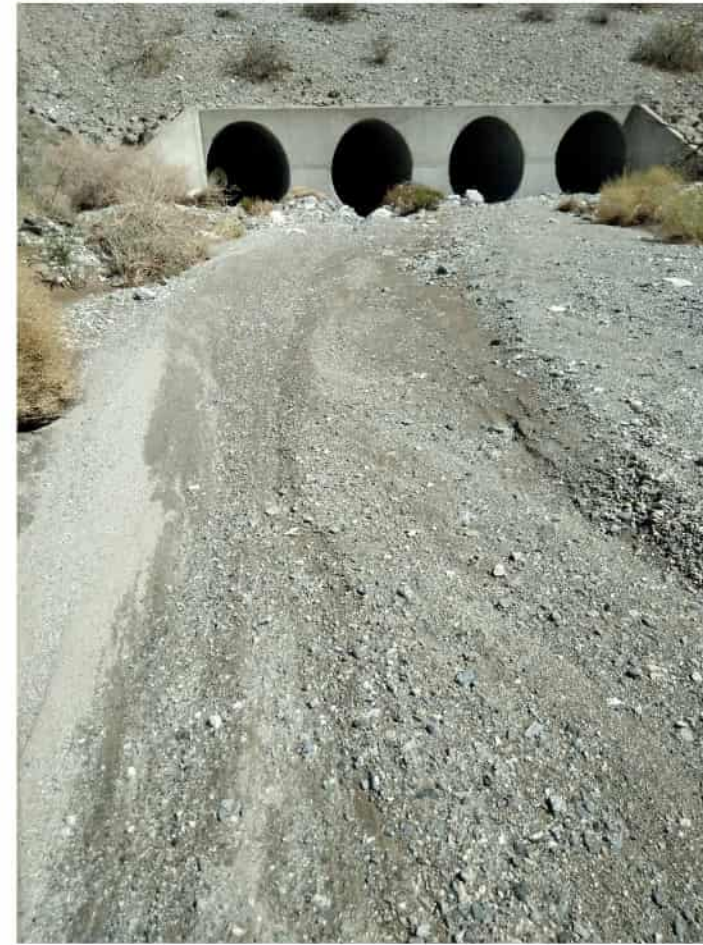


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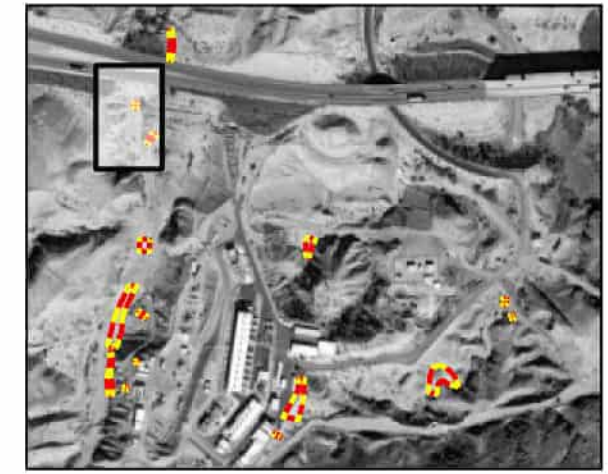
APPENDIX B-5
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



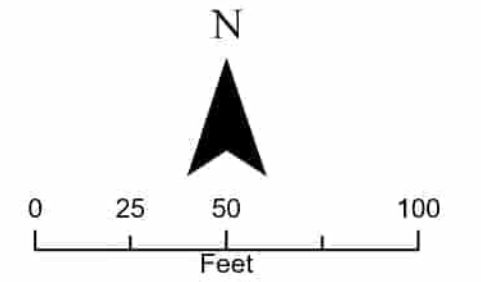
Pre-Construction Photo



Post-Construction Photo



- Construction Photo Point (Selected)
- Construction Photo Point (Other)
- Target Action Area
- NTCRA Disturbance Area



Maxar

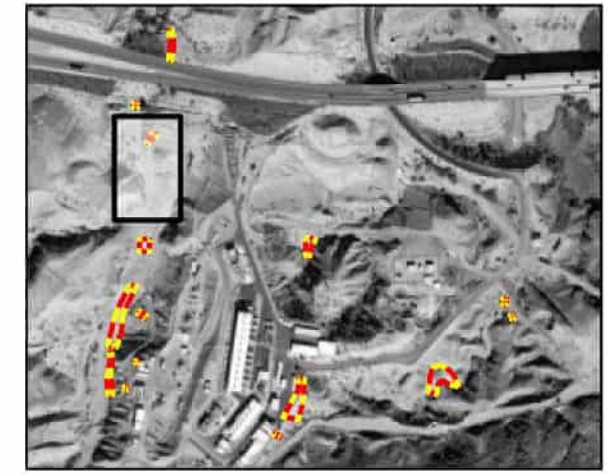
APPENDIX B-6
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



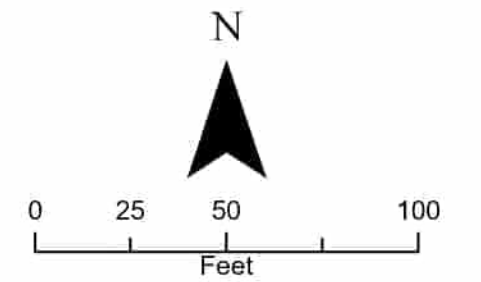
Pre-Construction Photo



Post-Construction Photo



- Construction Photo Point (Selected)
- Construction Photo Point (Other)
- Target Action Area
- NTCRA Disturbance Area



Maxar

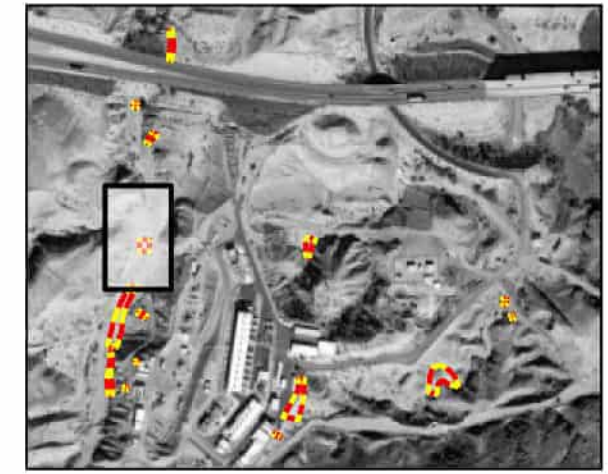
APPENDIX B-7
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



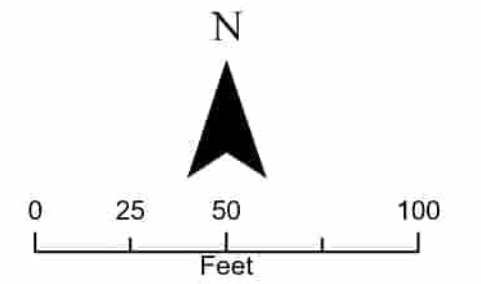
Pre-Construction Photo



Post-Construction Photo



- Construction Photo Point (Selected)
- Construction Photo Point (Other)
- Target Action Area
- NTCRA Disturbance Area



Maxar

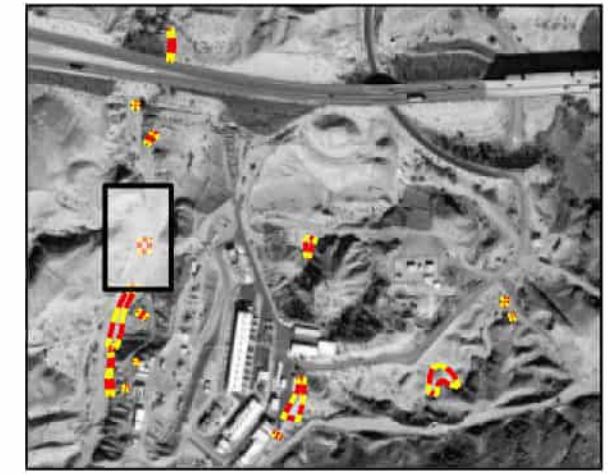
APPENDIX B-8
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



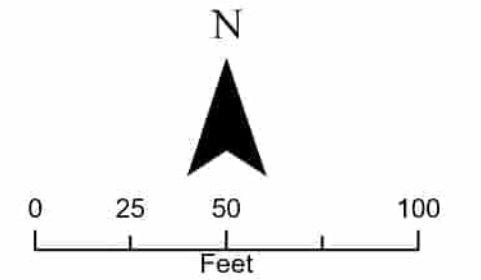
Pre-Construction Photo



Post-Construction Photo



- Construction Photo Point (Selected)
- Construction Photo Point (Other)
- Target Action Area
- NTCRA Disturbance Area



Maxar

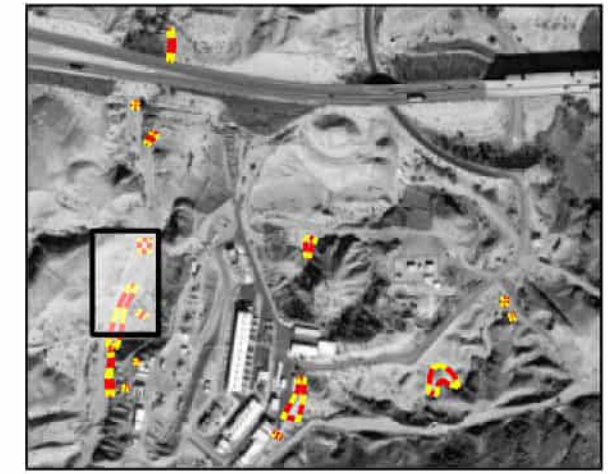
APPENDIX B-9
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



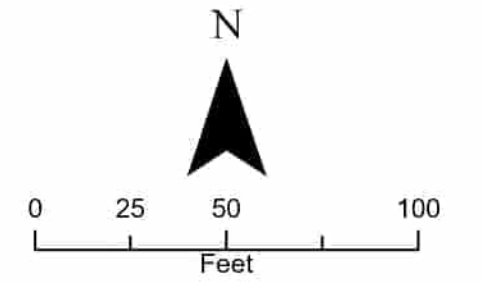
Pre-Construction Photo



Post-Construction Photo



- Construction Photo Point (Selected)
- Construction Photo Point (Other)
- Target Action Area
- NTCRA Disturbance Area



Maxar

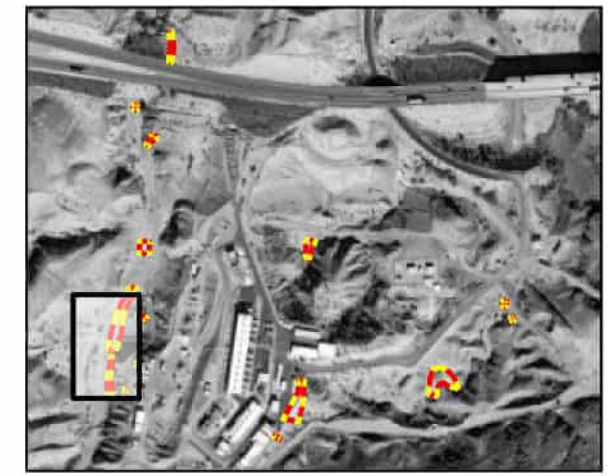
APPENDIX B-10
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



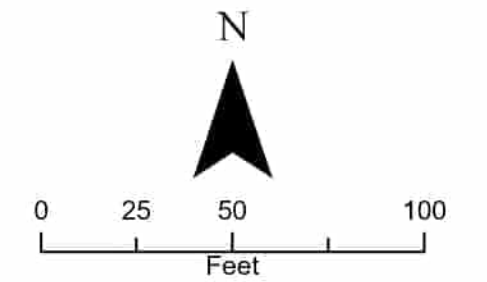
Pre-Construction Photo



Post-Construction Photo

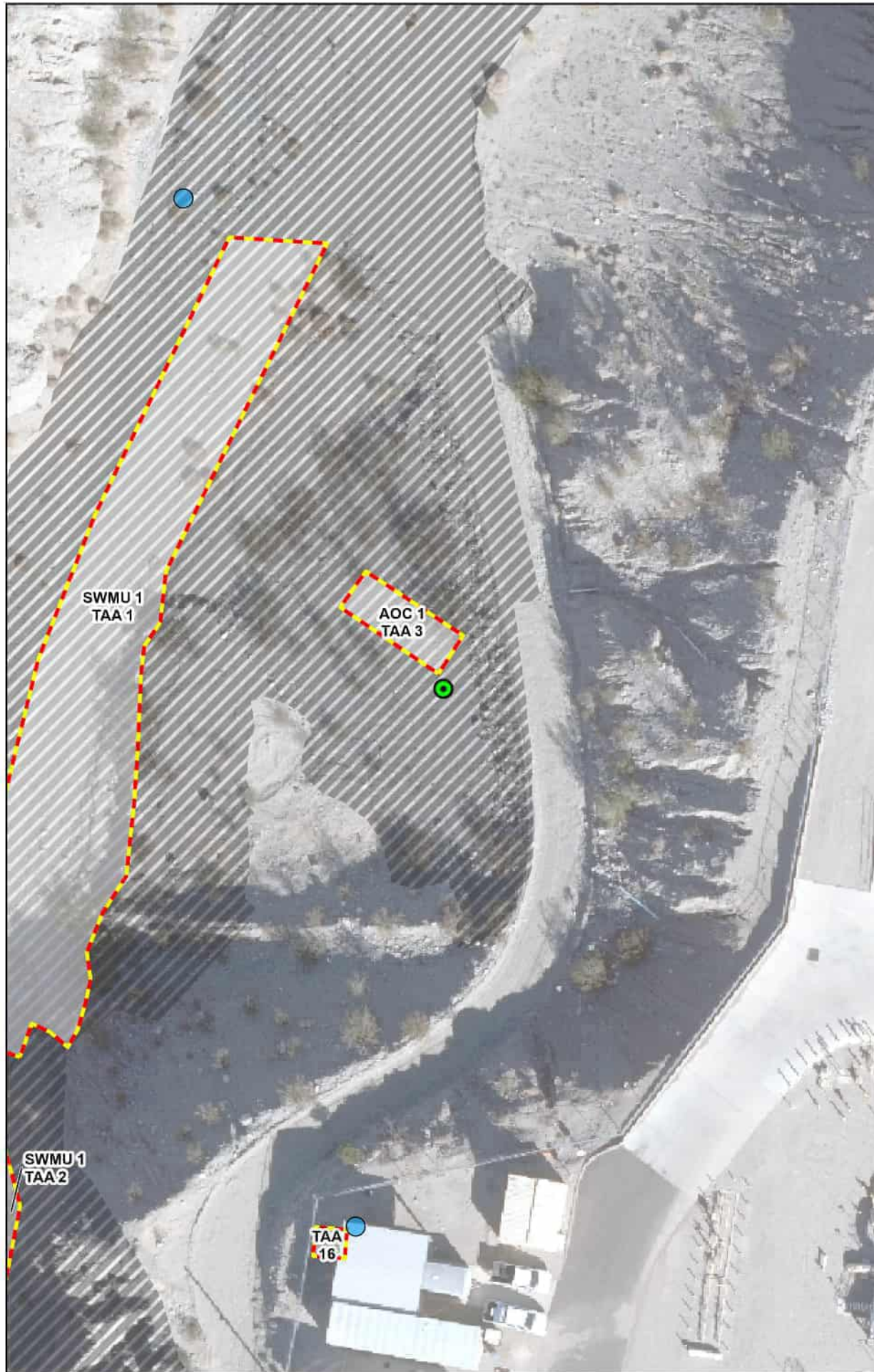


- Construction Photo Point (Selected)
- Construction Photo Point (Other)
- Target Action Area
- NTCRA Disturbance Area



Maxar

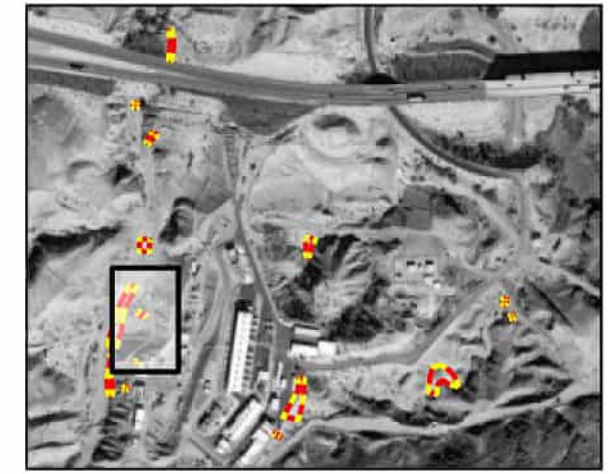
APPENDIX B-11
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



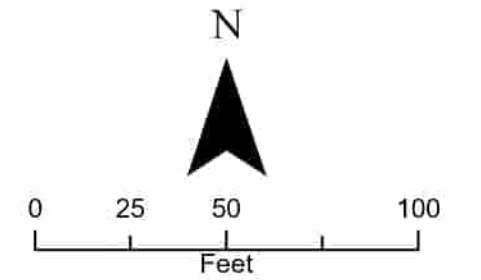
Pre-Construction Photo



Post-Construction Photo

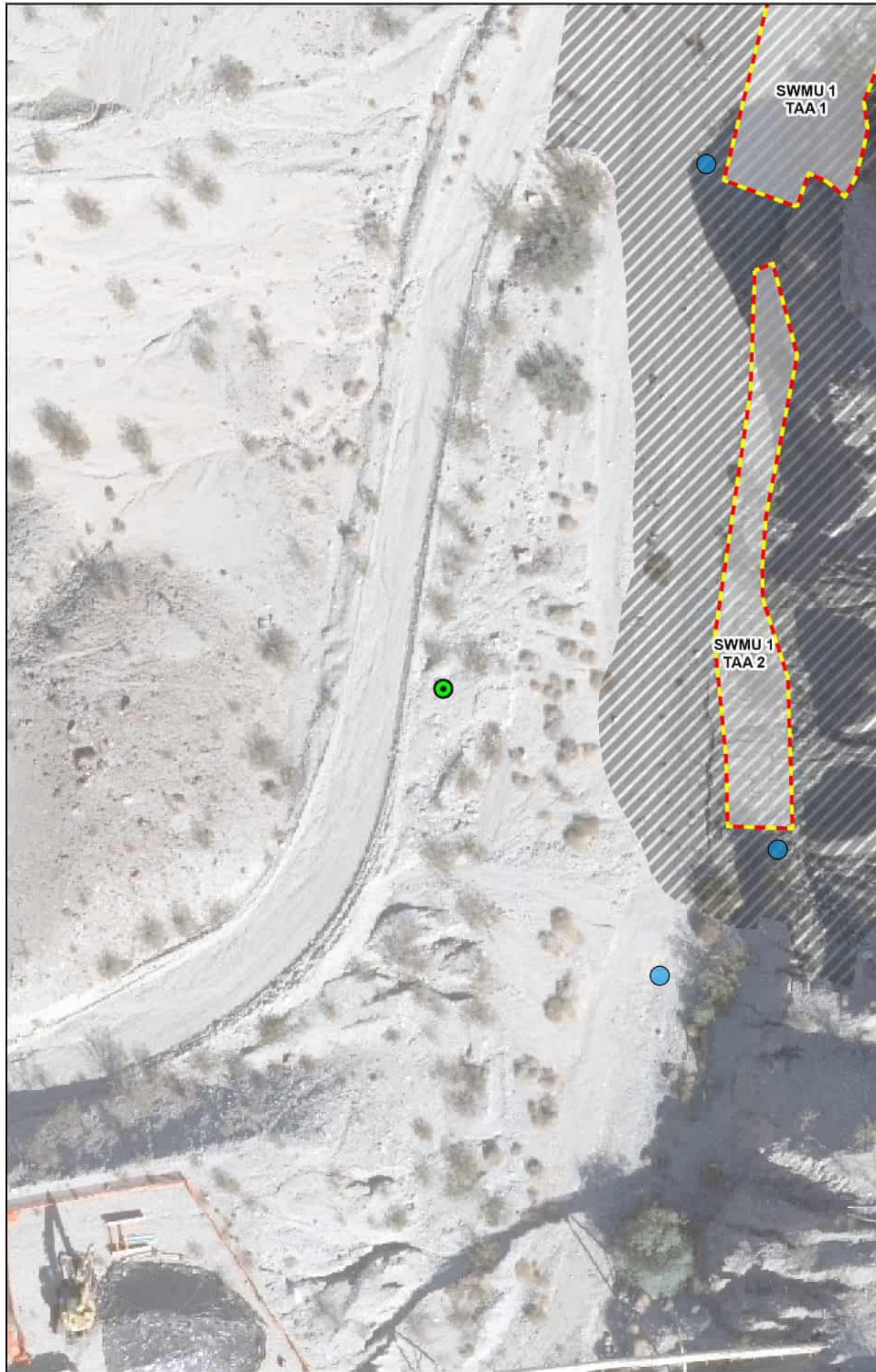


- Construction Photo Point (Selected)
- Construction Photo Point (Other)
- Target Action Area
- NTCRA Disturbance Area



Maxar

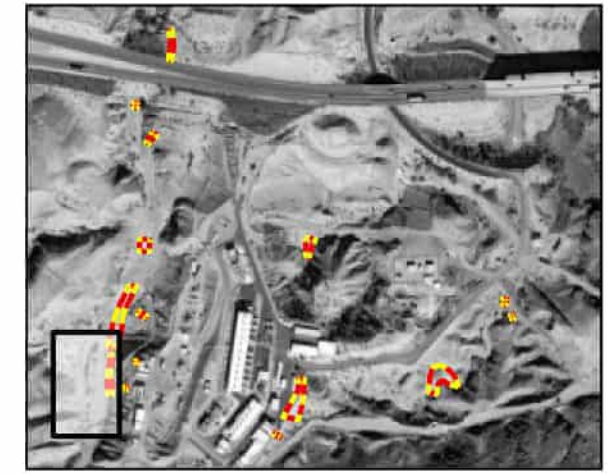
APPENDIX B-12
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



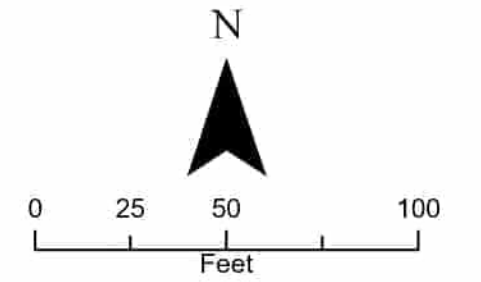
Pre-Construction Photo



Post-Construction Photo



- Construction Photo Point (Selected)
- Construction Photo Point (Other)
- Target Action Area
- NTCRA Disturbance Area



Maxar

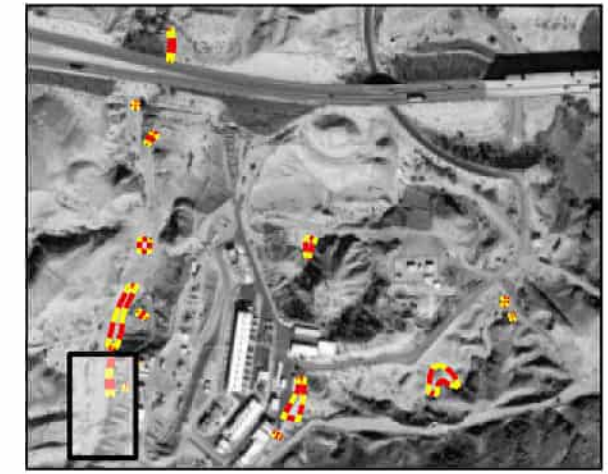
APPENDIX B-13
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



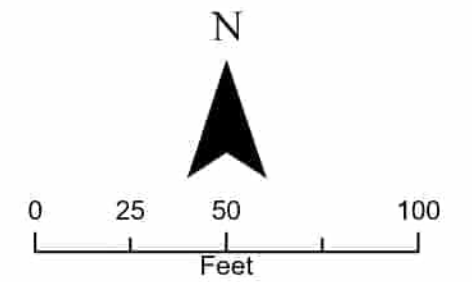
Pre-Construction Photo



Post-Construction Photo



- Construction Photo Point (Selected)
- Construction Photo Point (Other)
- Target Action Area
- NTCRA Disturbance Area



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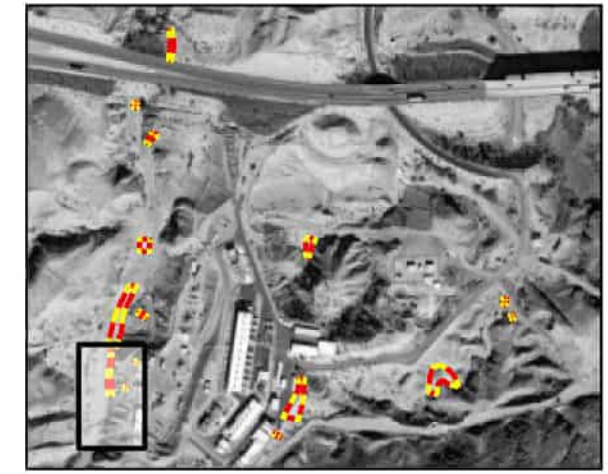
APPENDIX B-14
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



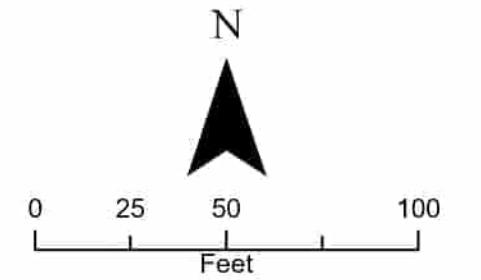
Pre-Construction Photo



Post-Construction Photo



- Construction Photo Point (Selected)
- Construction Photo Point (Other)
- Target Action Area
- NTCRA Disturbance Area



Maxar

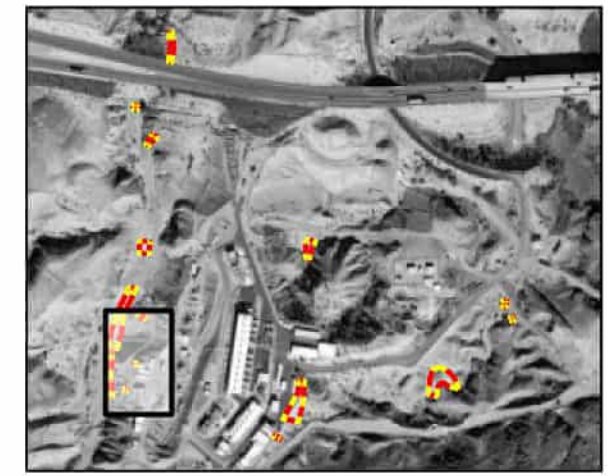
APPENDIX B-15
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



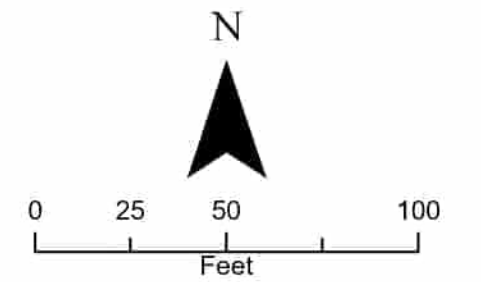
Pre-Construction Photo



Post-Construction Photo

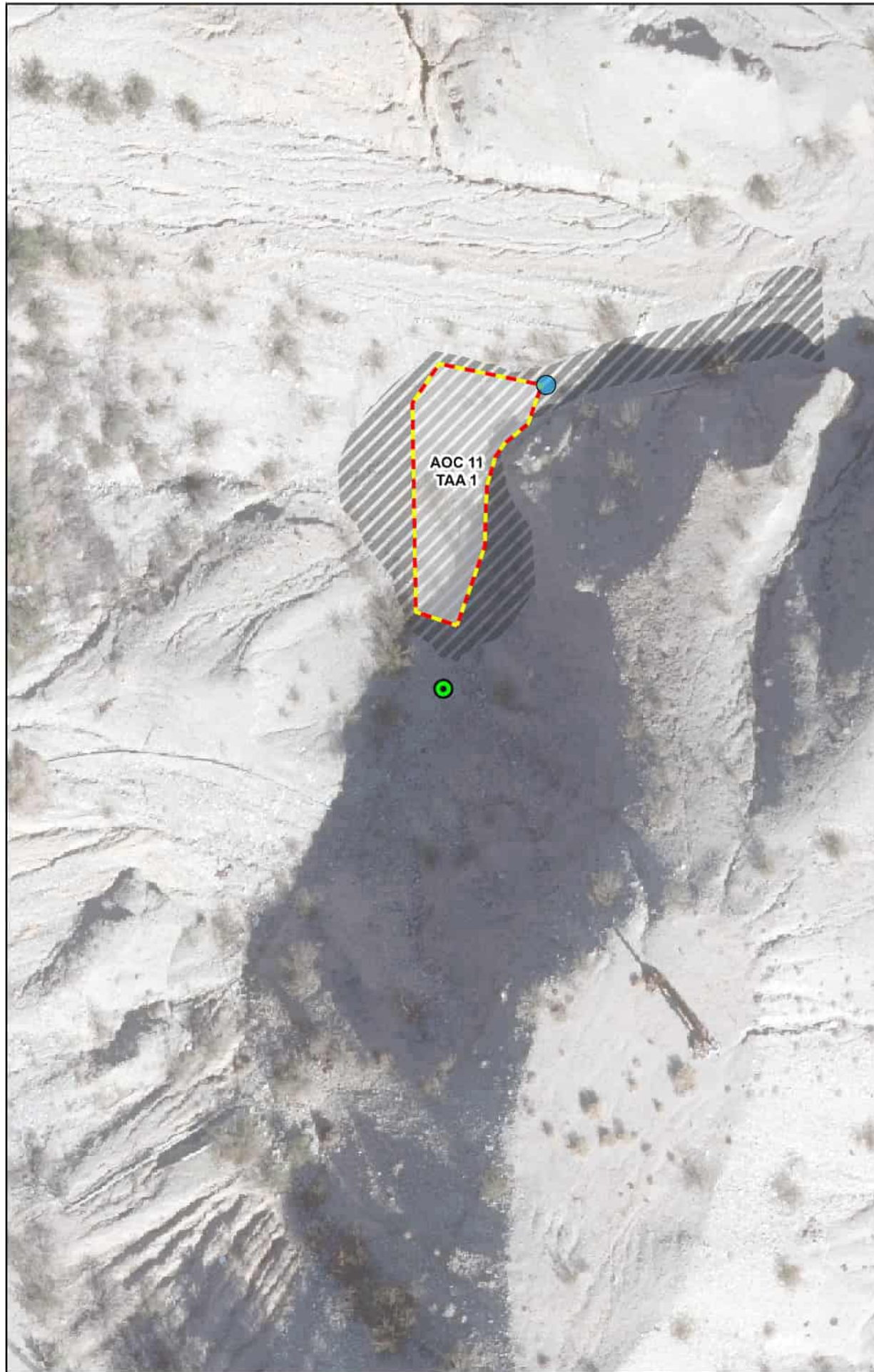


- Construction Photo Point (Selected)
- Construction Photo Point (Other)
- Target Action Area
- NTCRA Disturbance Area



Maxar

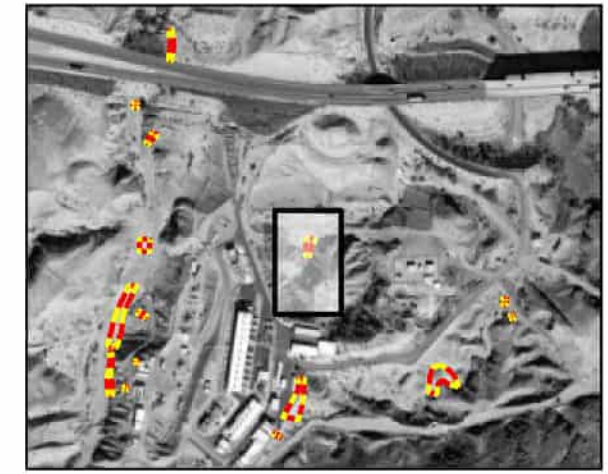
APPENDIX B-16
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



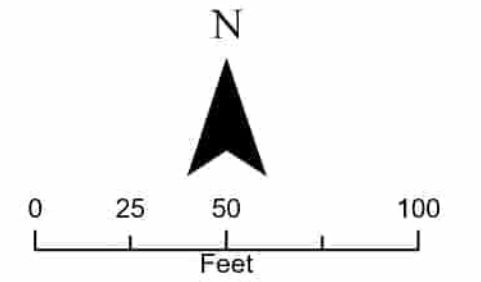
Pre-Construction Photo



Post-Construction Photo

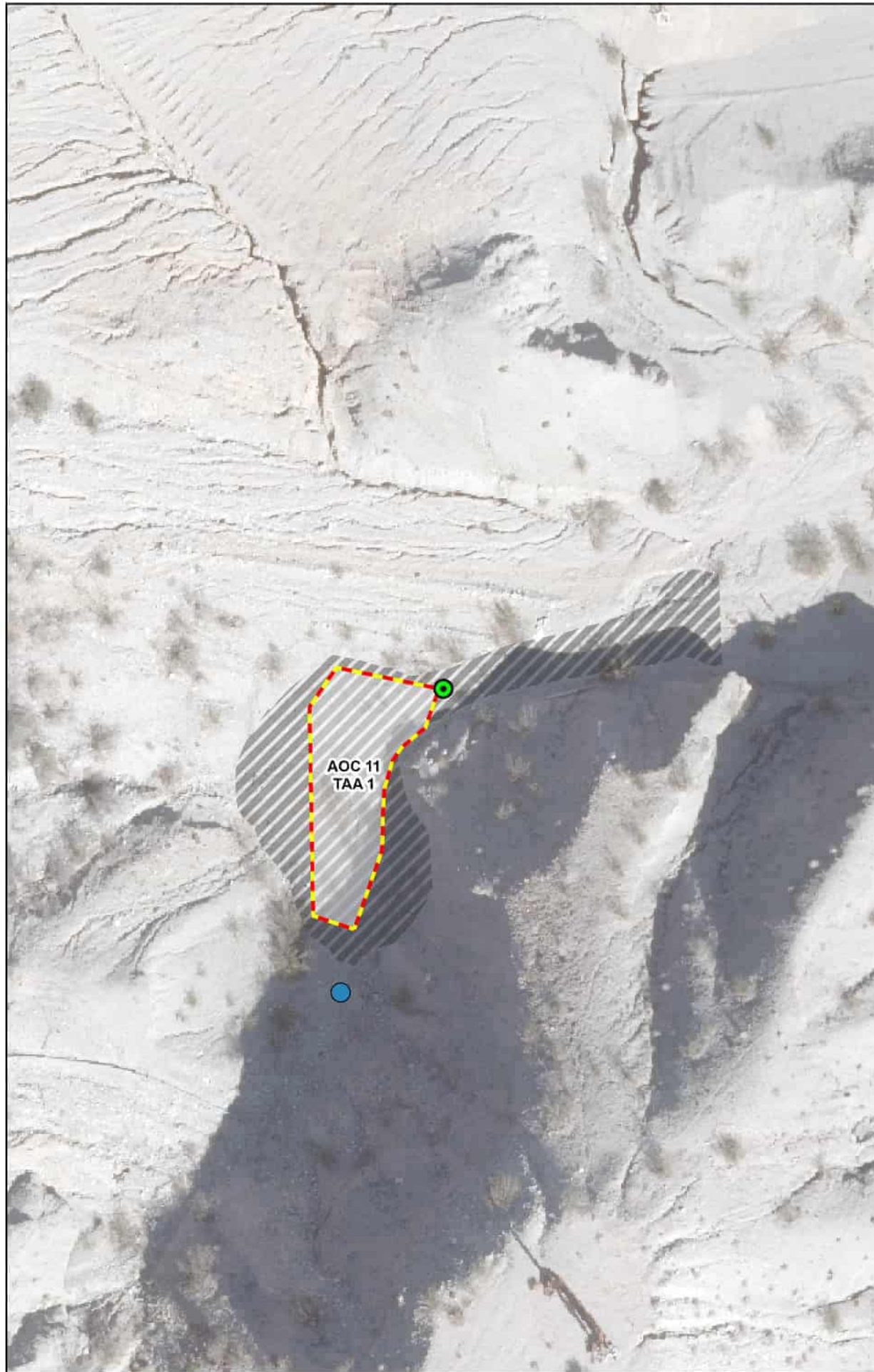


- Construction Photo Point (Selected)
- Construction Photo Point (Other)
- Target Action Area
- NTCRA Disturbance Area



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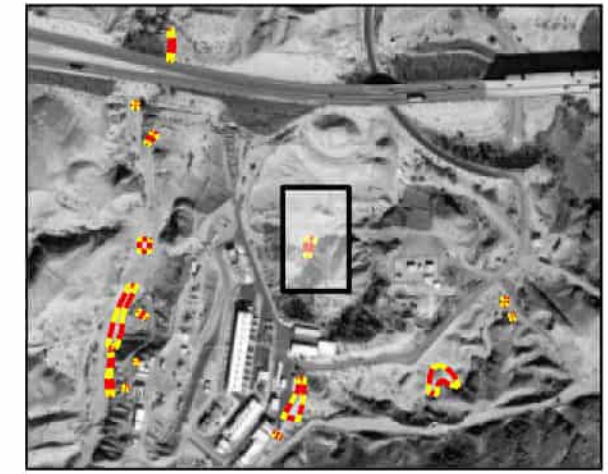
APPENDIX B-17
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



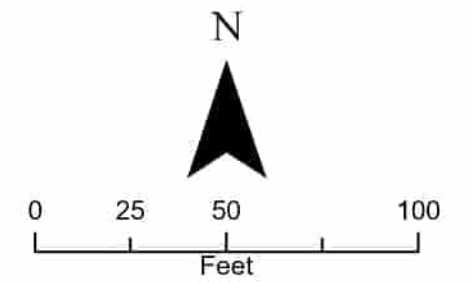
Pre-Construction Photo



Post-Construction Photo



- Construction Photo Point (Selected)
- Construction Photo Point (Other)
- Target Action Area
- NTCRA Disturbance Area

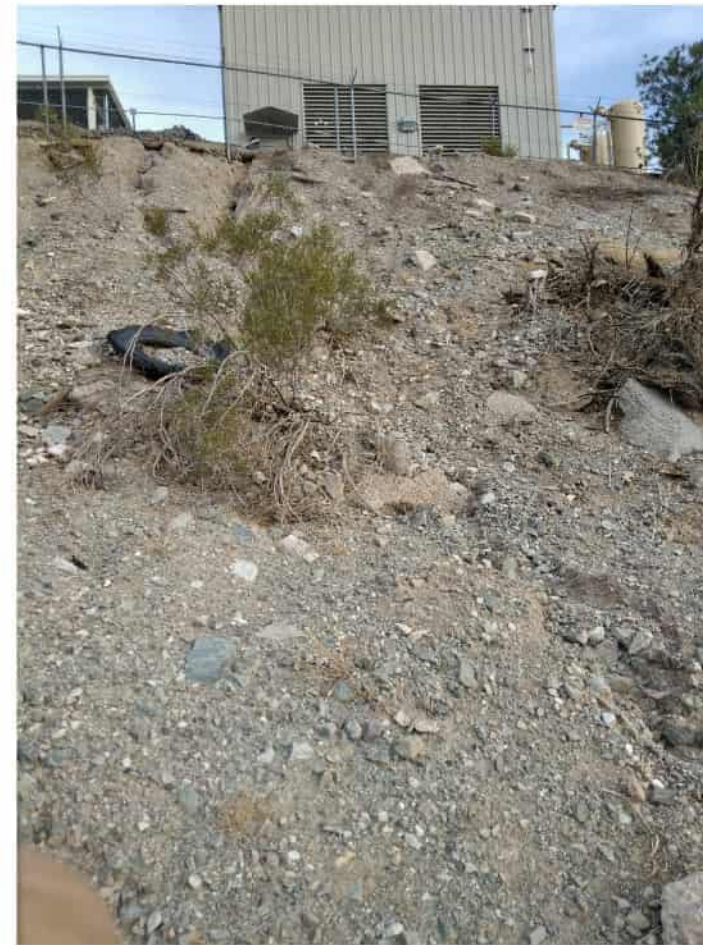


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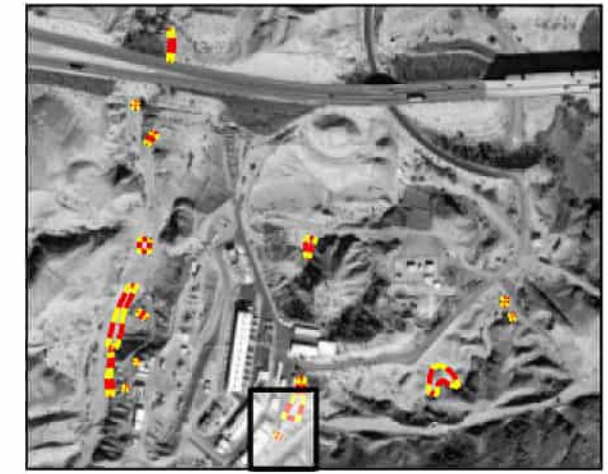
APPENDIX B-18
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



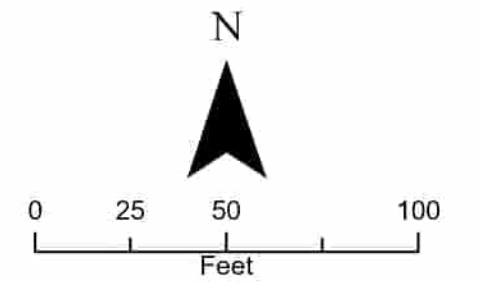
Pre-Construction Photo



Post-Construction Photo



- Construction Photo Point (Selected)
- Construction Photo Point (Other)
- Target Action Area
- NTCRA Disturbance Area



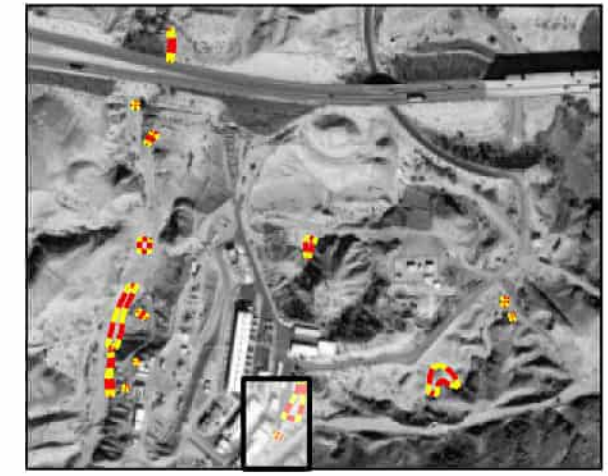
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APPENDIX B-19
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California

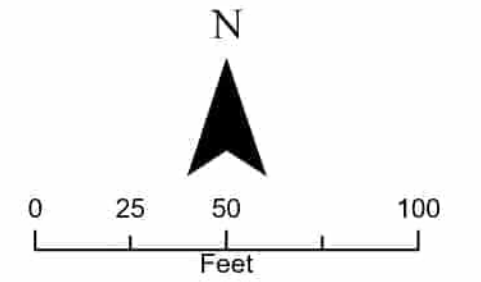


Pre-Construction Photo

Post-Construction Photo

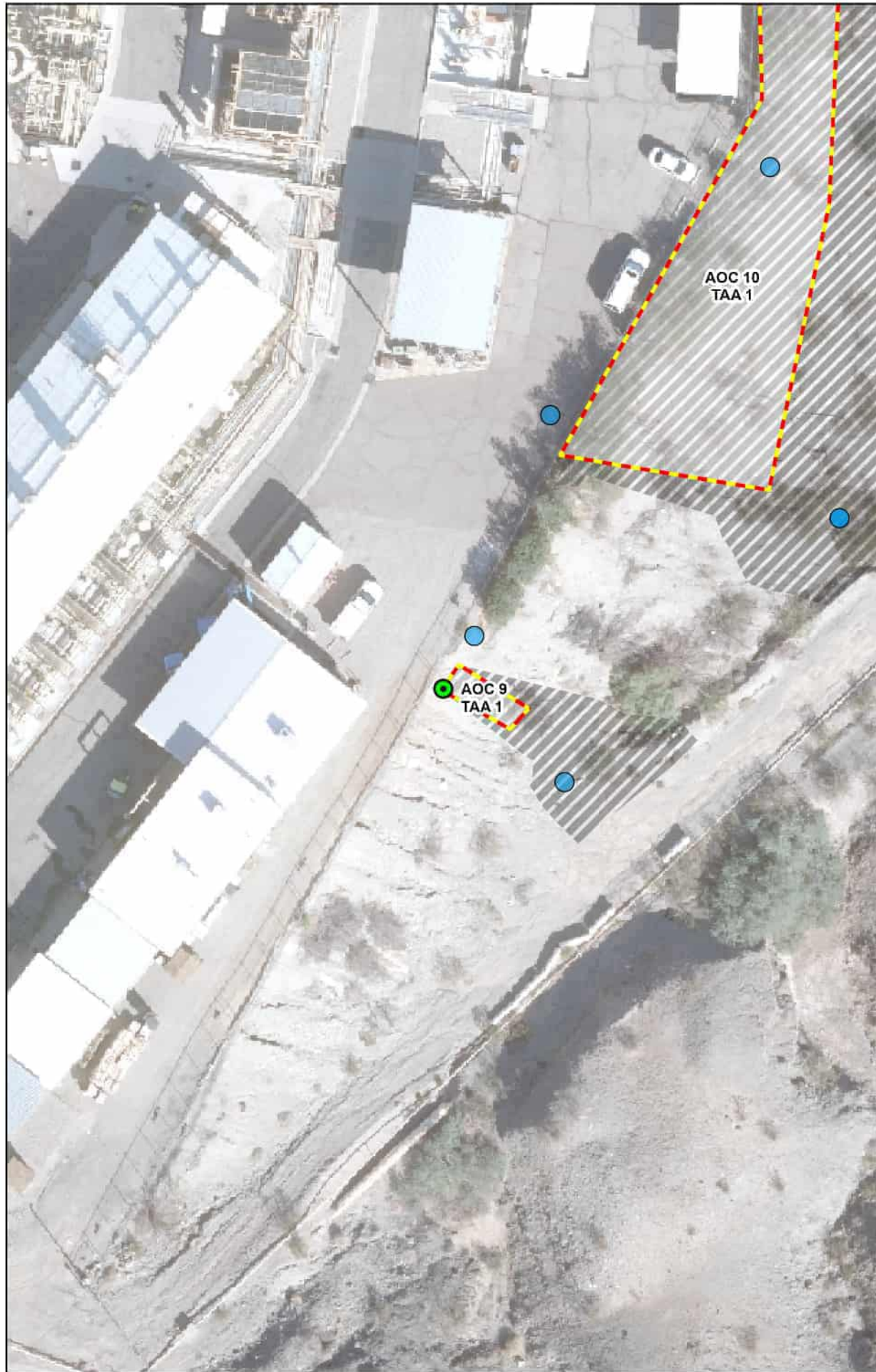


- Construction Photo Point (Selected)
- Construction Photo Point (Other)
- Target Action Area
- NTCRA Disturbance Area



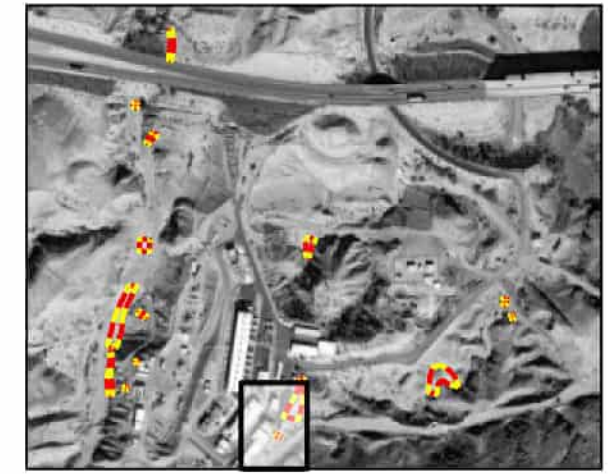
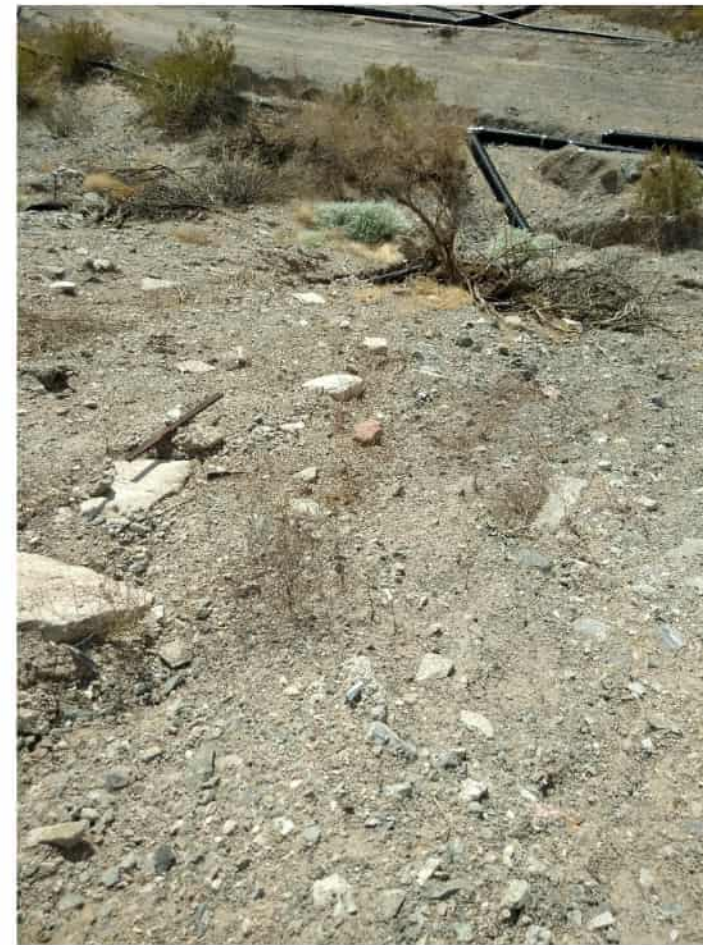
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APPENDIX B-20
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California

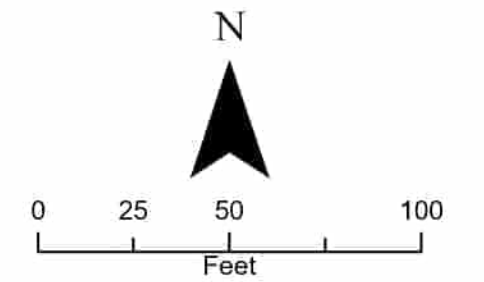


Pre-Construction Photo

Post-Construction Photo

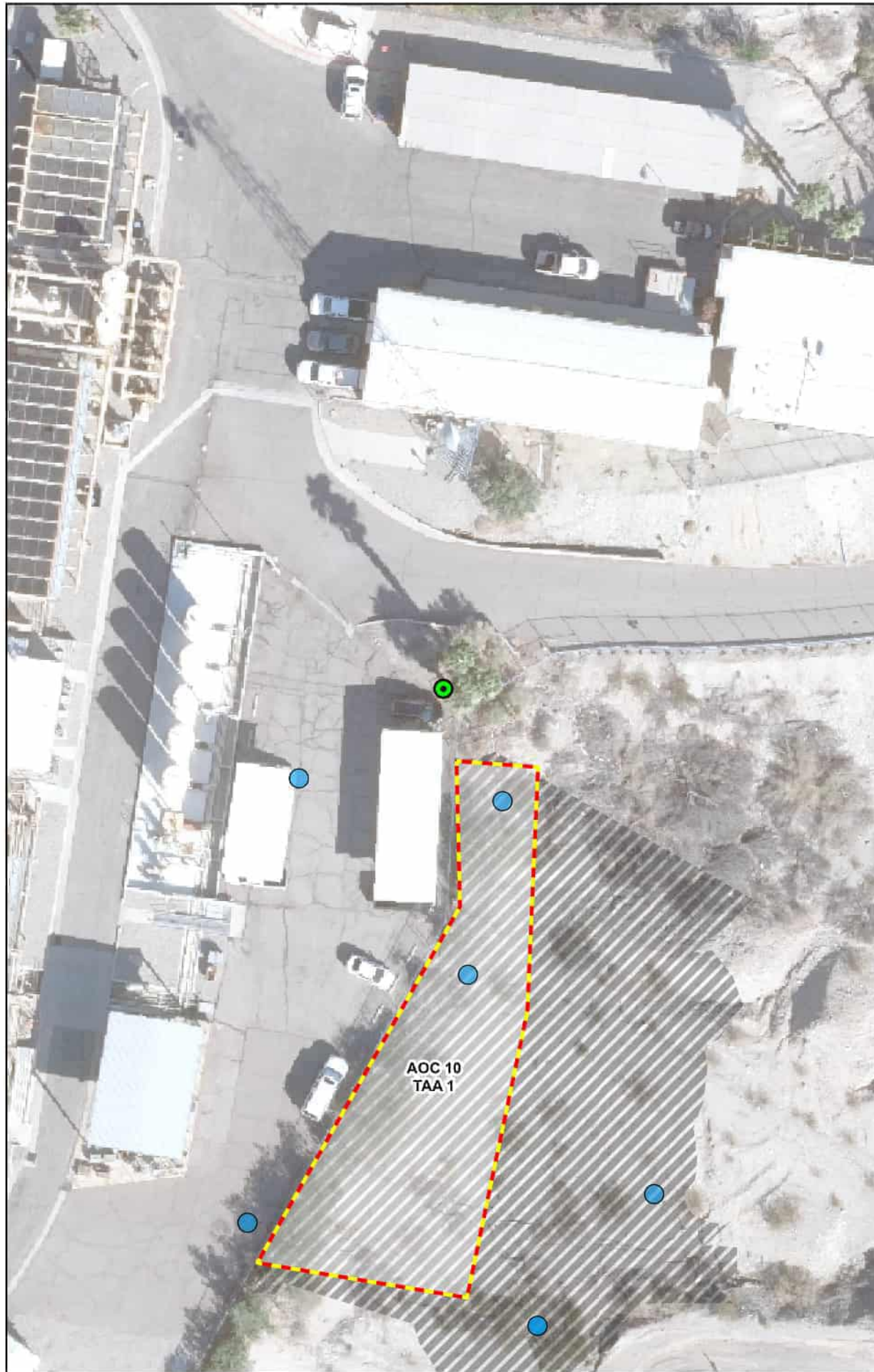


- Construction Photo Point (Selected)
- Construction Photo Point (Other)
- Target Action Area
- NTCRA Disturbance Area



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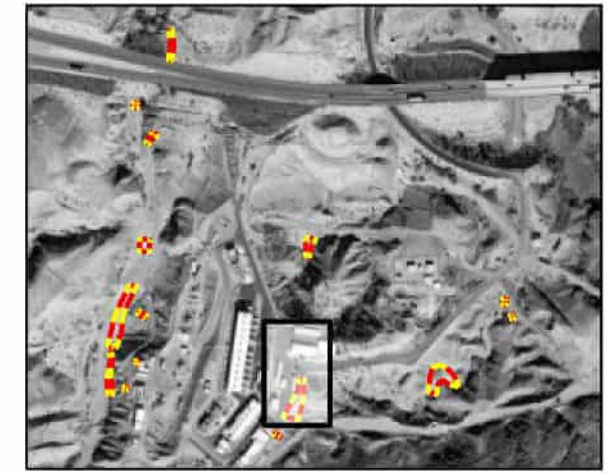
APPENDIX B-21
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



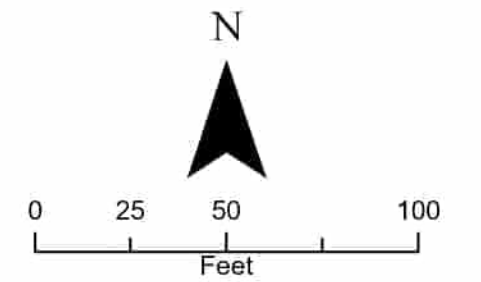
Pre-Construction Photo



Post-Construction Photo

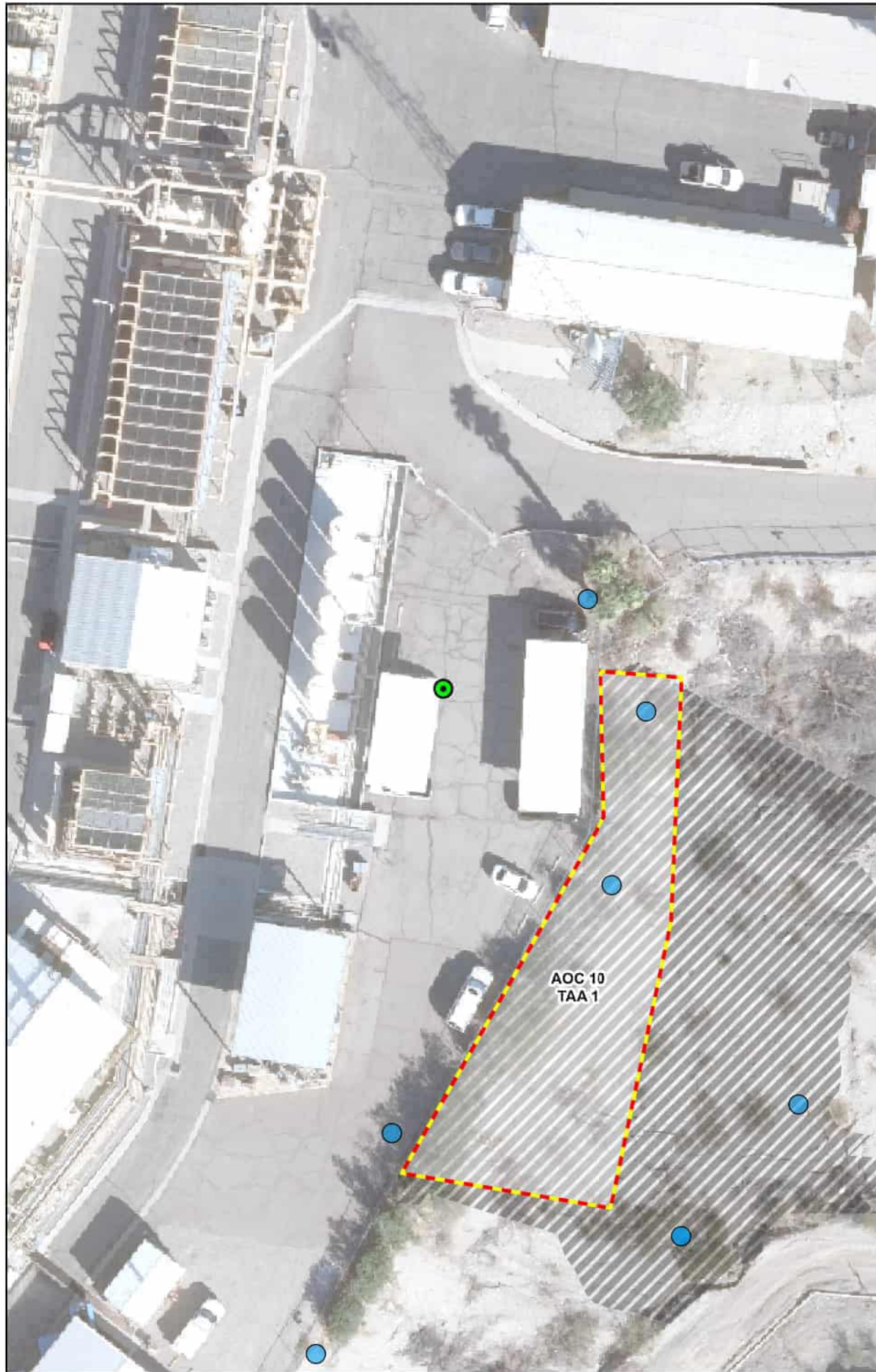


- Construction Photo Point (Selected)
- Construction Photo Point (Other)
- Target Action Area
- NTCRA Disturbance Area

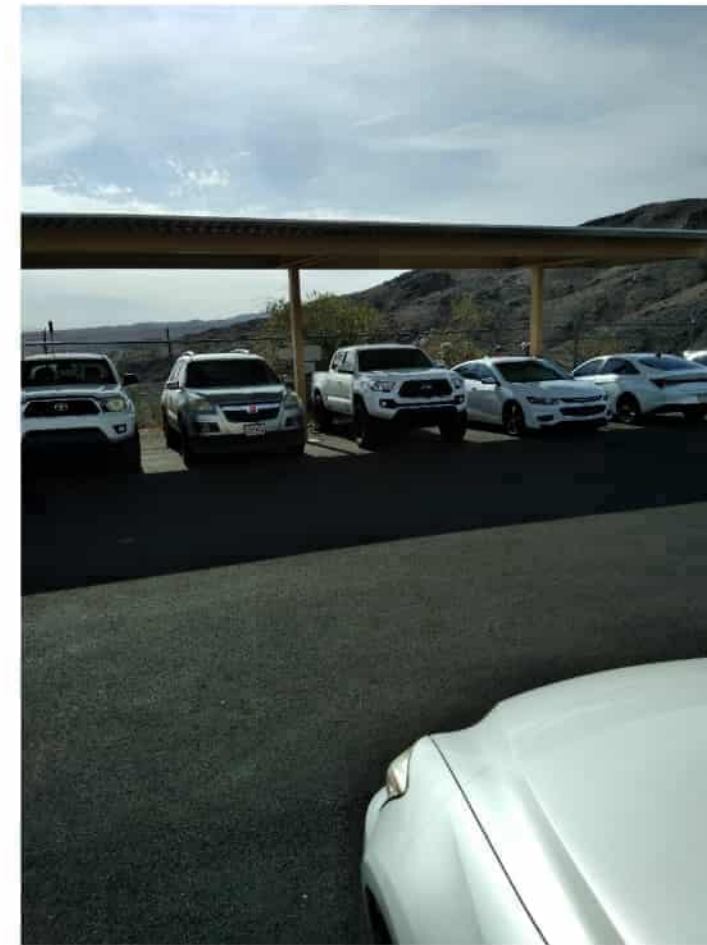


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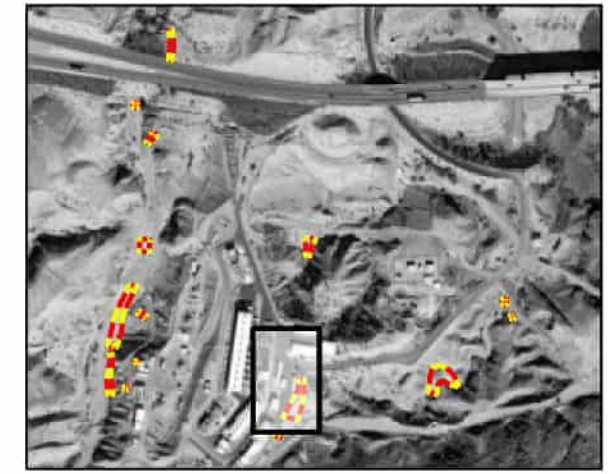
APPENDIX B-22
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



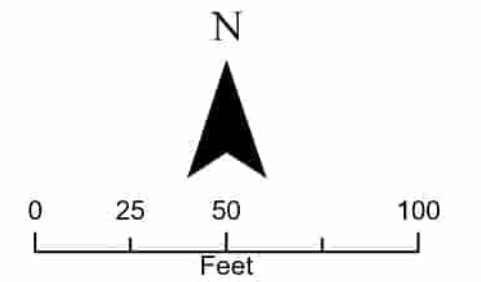
Pre-Construction Photo



Post-Construction Photo

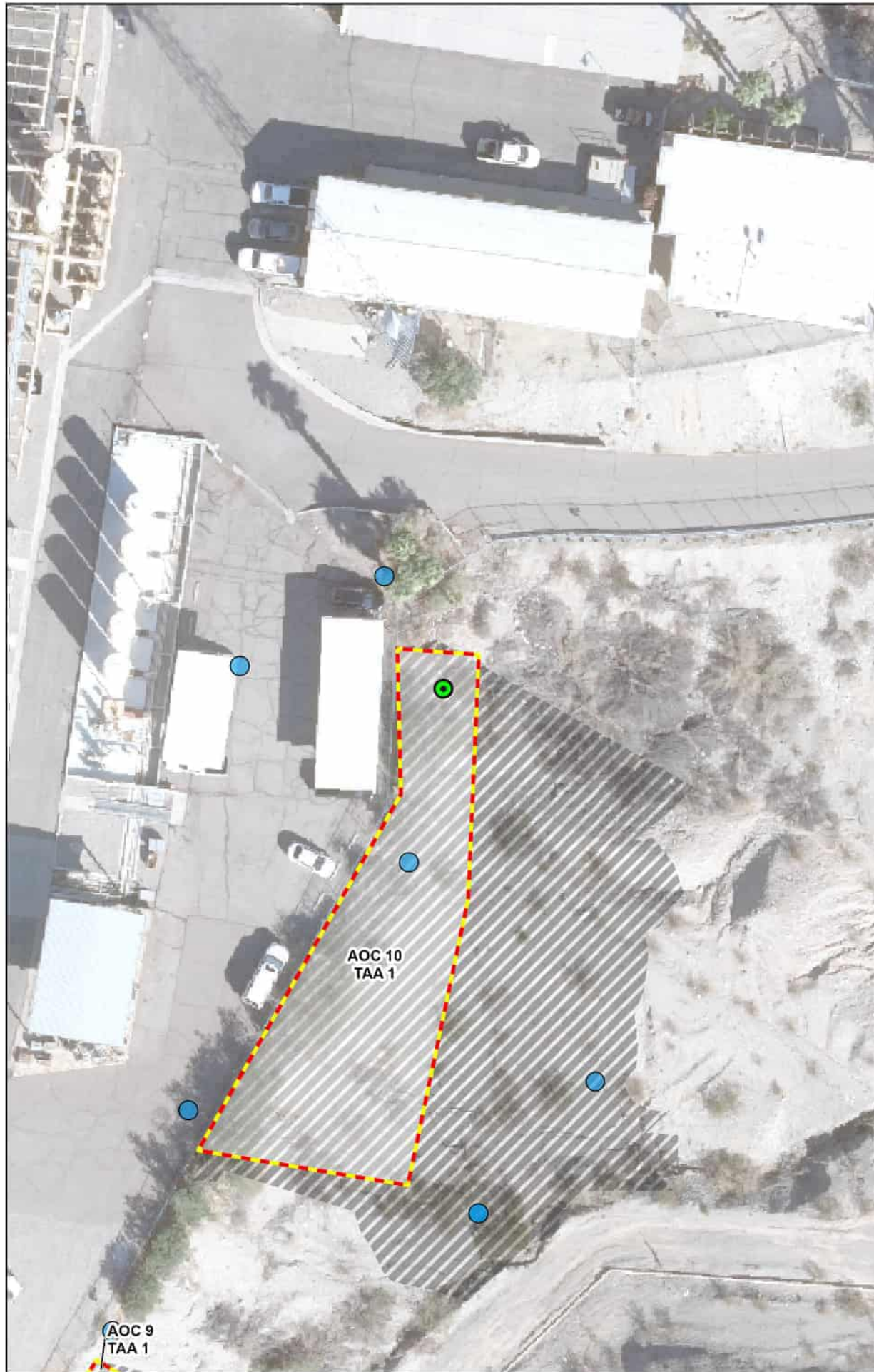


- Construction Photo Point (Selected)
- Construction Photo Point (Other)
- Target Action Area
- NTCRA Disturbance Area

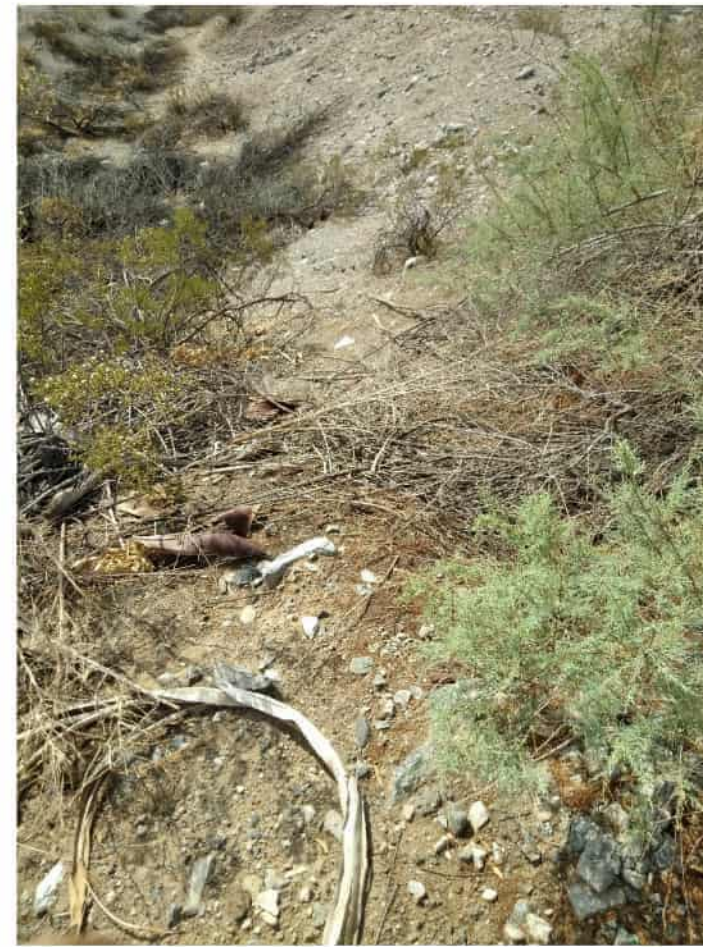


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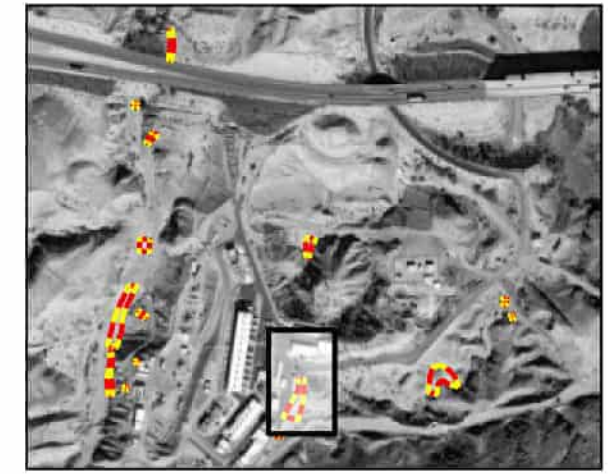
APPENDIX B-23
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



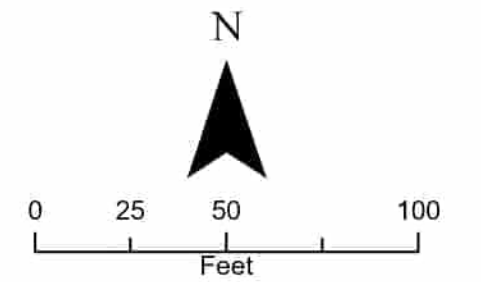
Pre-Construction Photo



Post-Construction Photo

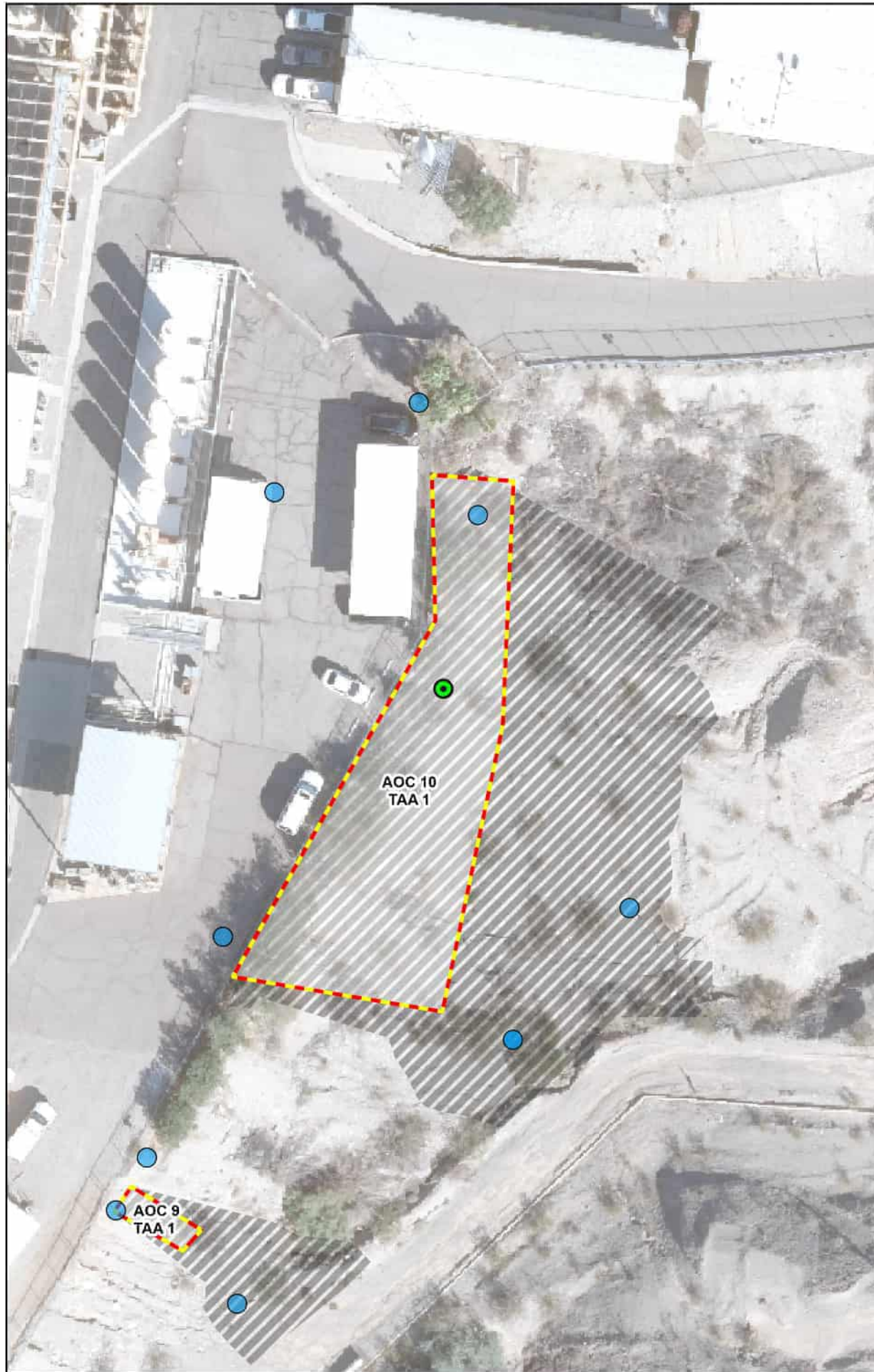


- Construction Photo Point (Selected)
- Construction Photo Point (Other)
- Target Action Area
- NTCRA Disturbance Area



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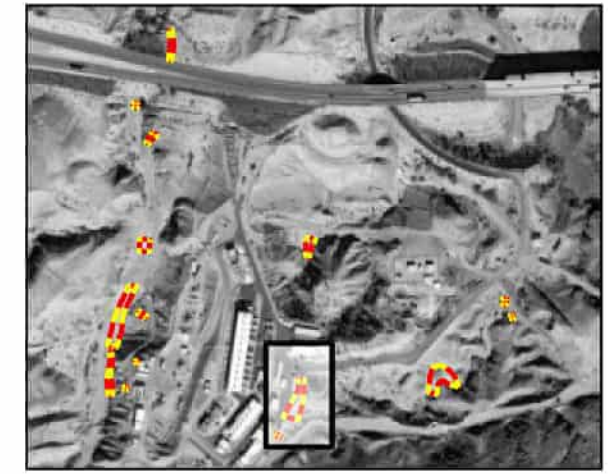
APPENDIX B-24
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



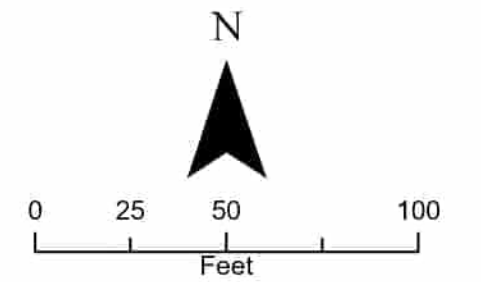
Pre-Construction Photo



Post-Construction Photo



- Construction Photo Point (Selected)
- Construction Photo Point (Other)
- Target Action Area
- NTCRA Disturbance Area



Maxar

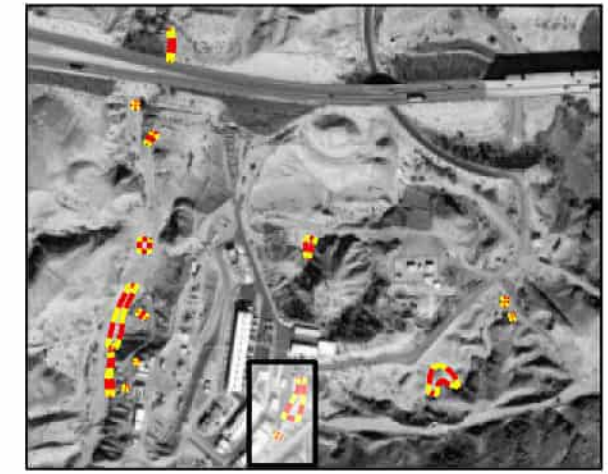
APPENDIX B-25
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



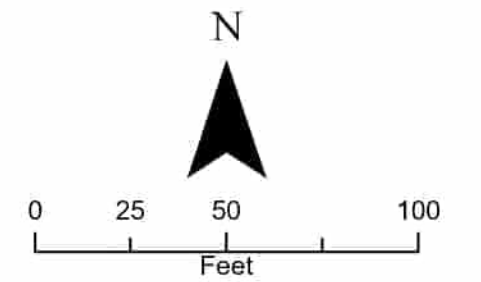
Pre-Construction Photo



Post-Construction Photo



- Construction Photo Point (Selected)
- Construction Photo Point (Other)
- Target Action Area
- NTCRA Disturbance Area



Maxar

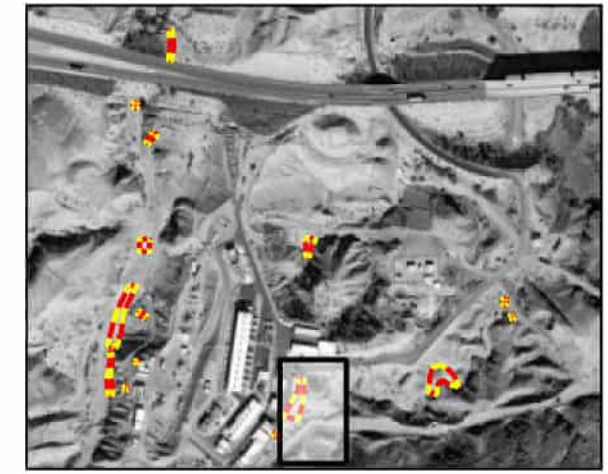
APPENDIX B-26
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



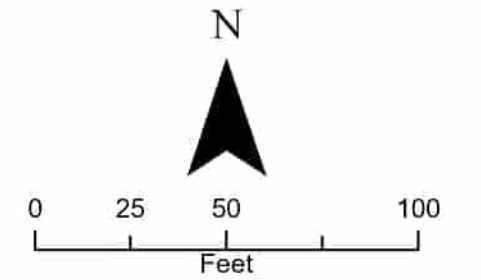
Pre-Construction Photo



Post-Construction Photo



- Construction Photo Point (Selected)
- Construction Photo Point (Other)
- Target Action Area
- NTCRA Disturbance Area



Maxar

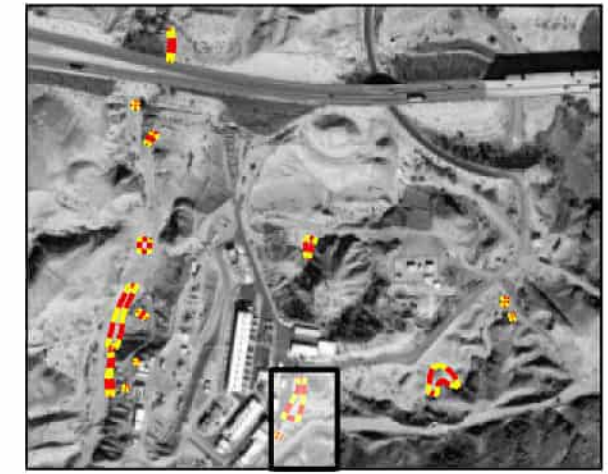
APPENDIX B-27
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



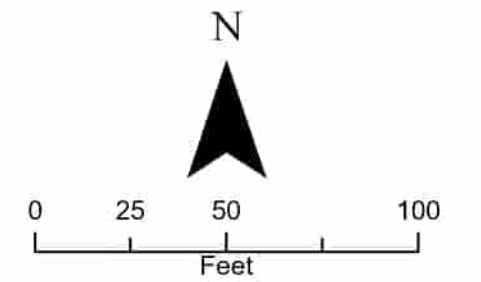
Pre-Construction Photo



Post-Construction Photo



- Construction Photo Point (Selected)
- Construction Photo Point (Other)
- Target Action Area
- NTCRA Disturbance Area

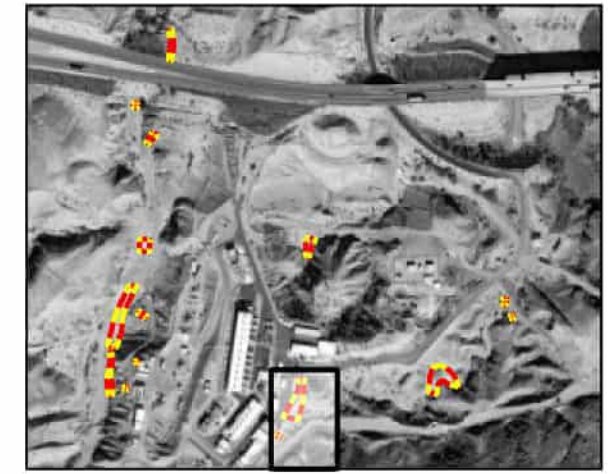
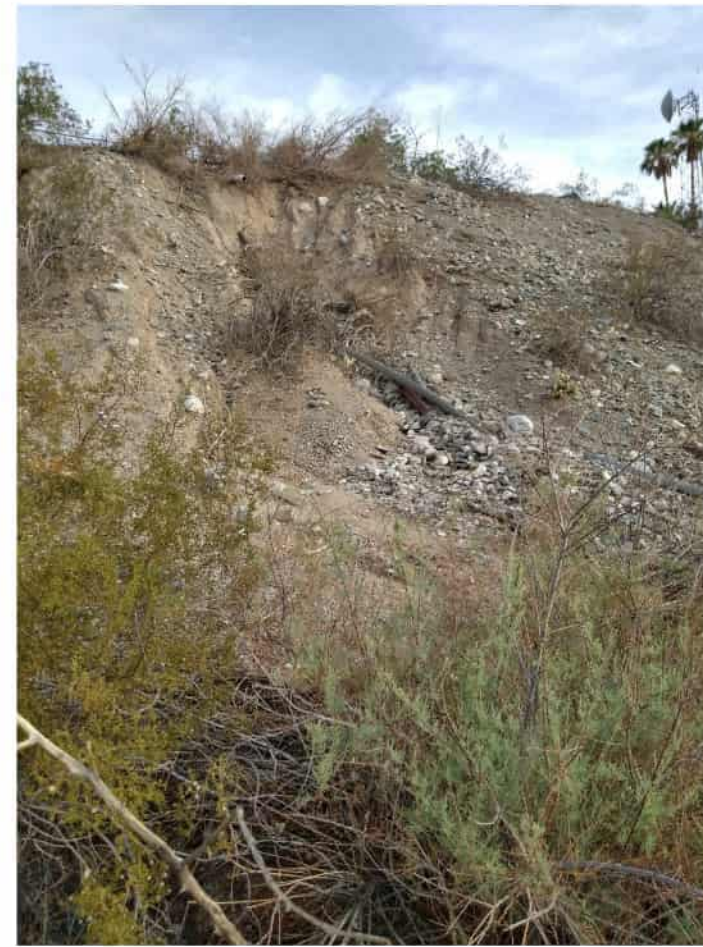


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APPENDIX B-28
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California

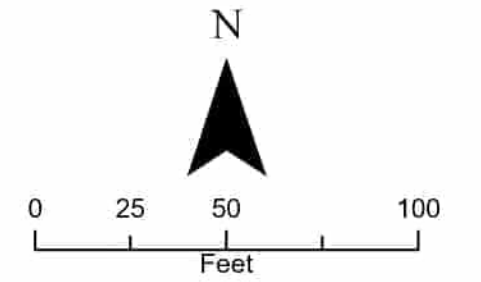


Pre-Construction Photo



- Construction Photo Point (Selected)
- Construction Photo Point (Other)
- Target Action Area
- NTCRA Disturbance Area

Post-Construction Photo



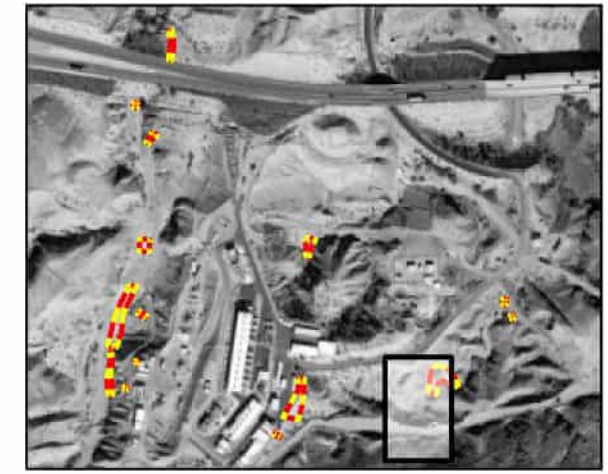
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APPENDIX B-29
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California

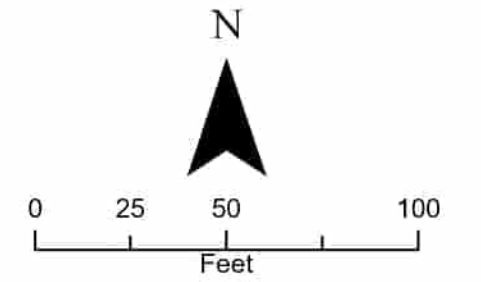


Pre-Construction Photo

Post-Construction Photo

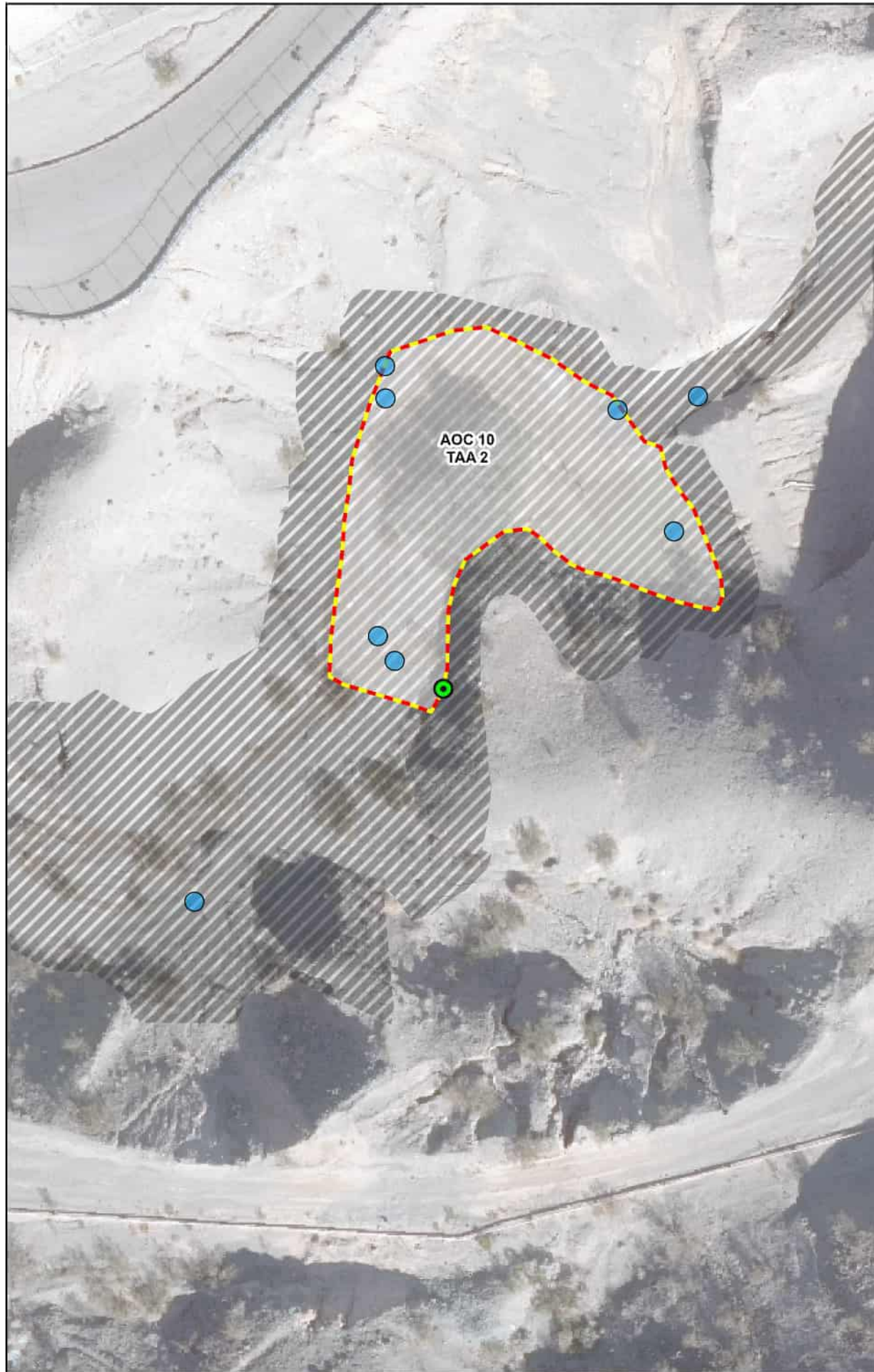


- Construction Photo Point (Selected)
- Construction Photo Point (Other)
- Target Action Area
- NTCRA Disturbance Area



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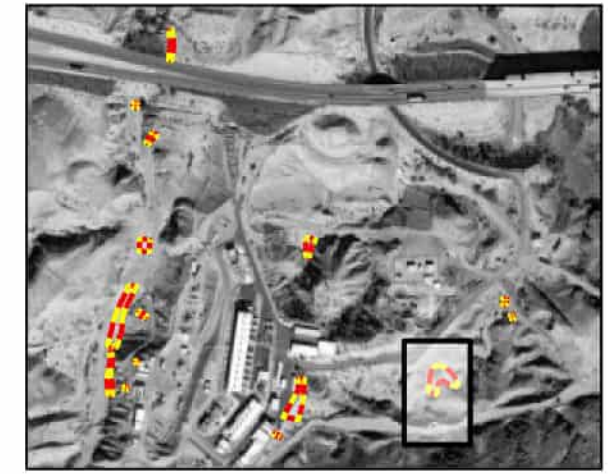
APPENDIX B-30
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



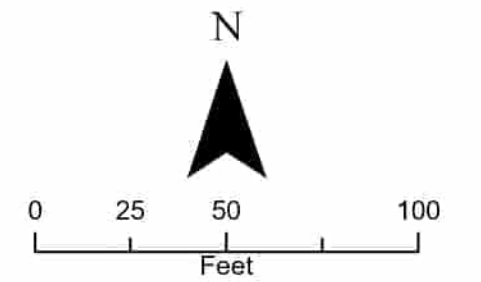
Pre-Construction Photo



Post-Construction Photo

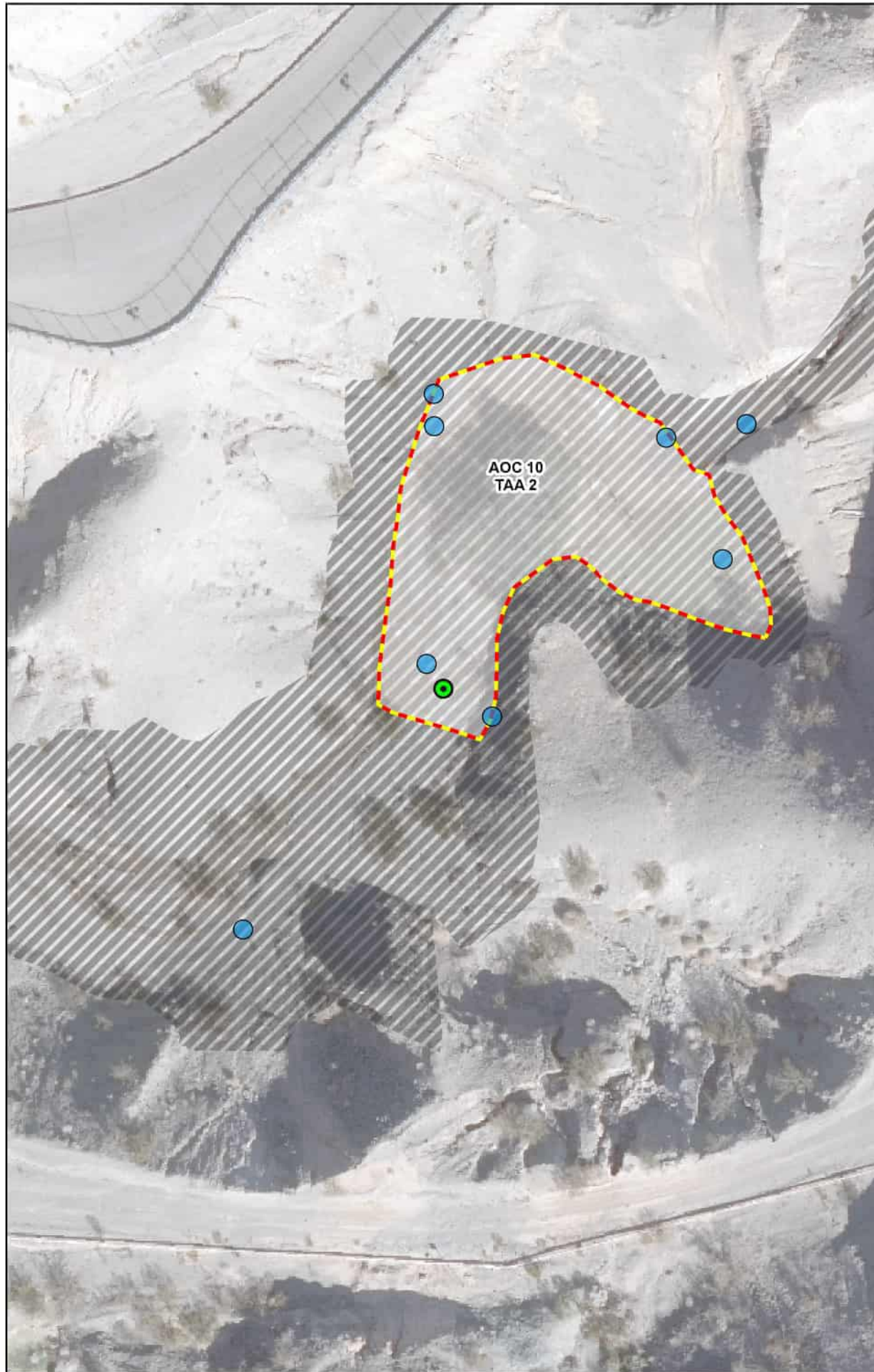


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- Construction Photo Point (Other)
- Target Action Area
- NTCRA Disturbance Area



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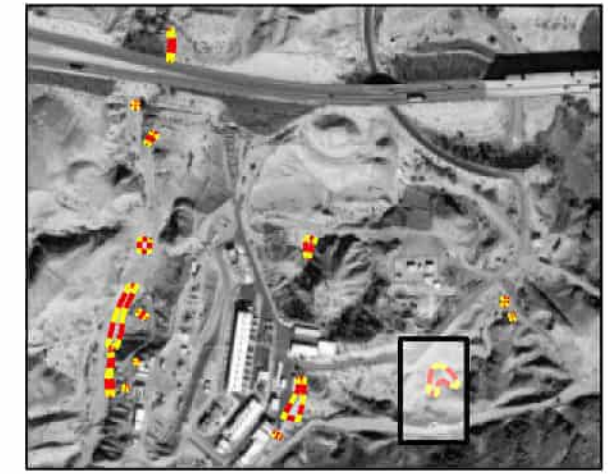
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Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
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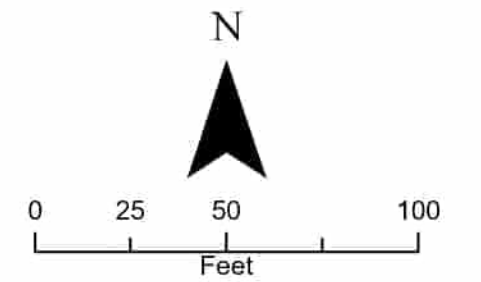
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Post-Construction Photo

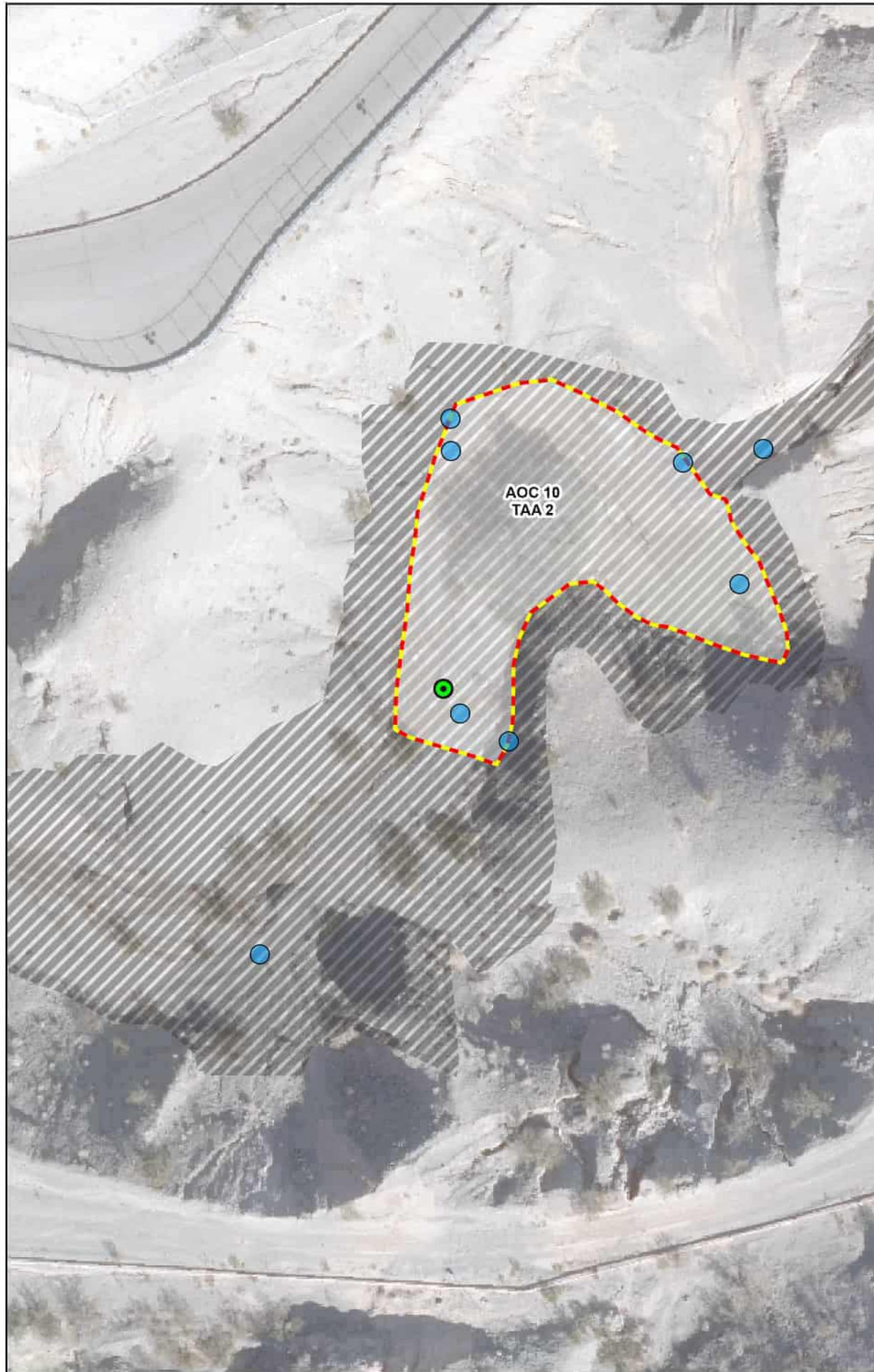


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- NTCRA Disturbance Area



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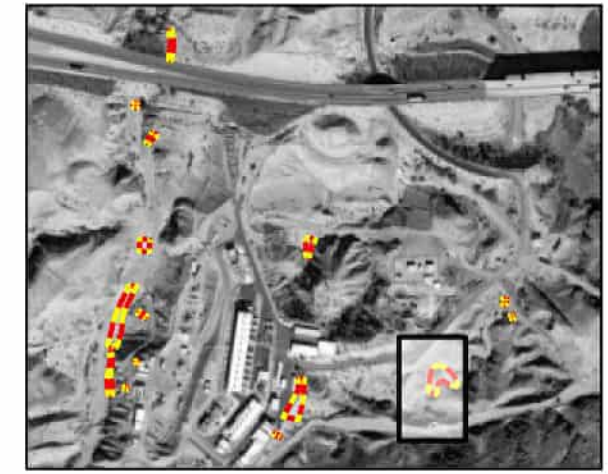
APPENDIX B-32
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
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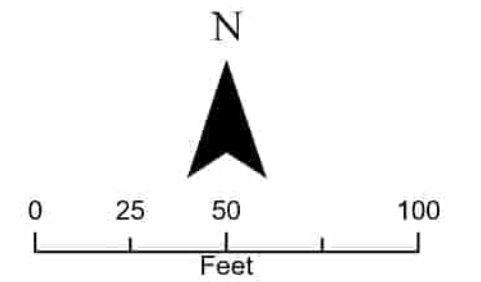
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Post-Construction Photo



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- Target Action Area
- NTCRA Disturbance Area

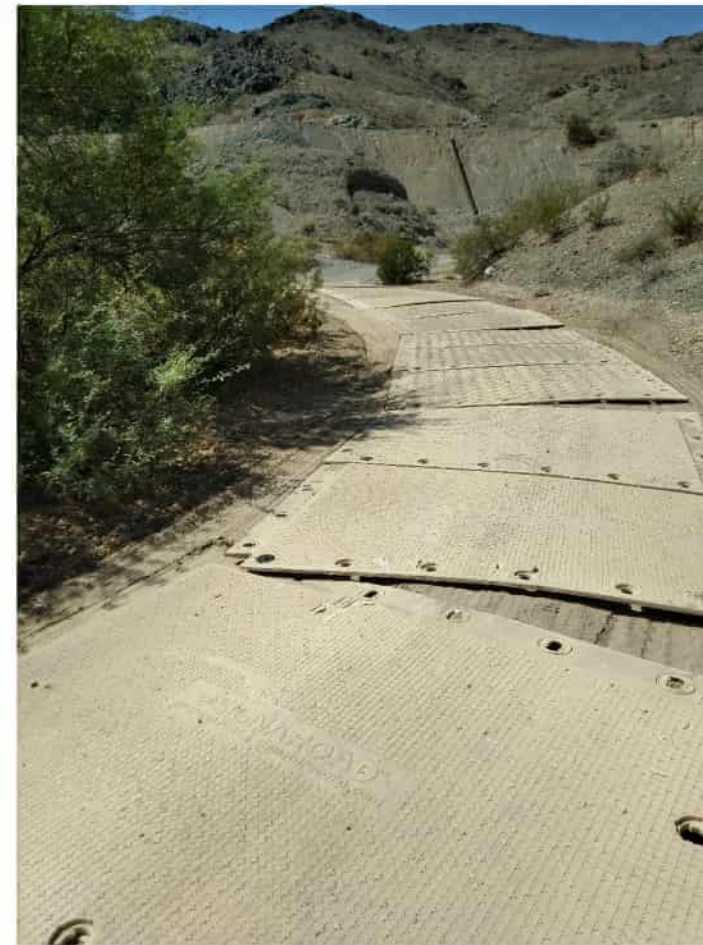


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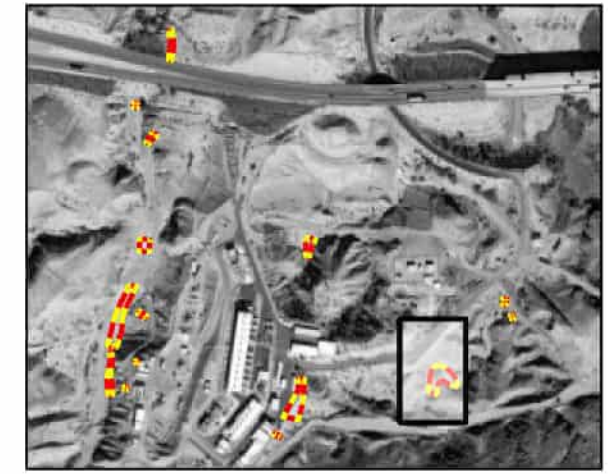
APPENDIX B-33
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



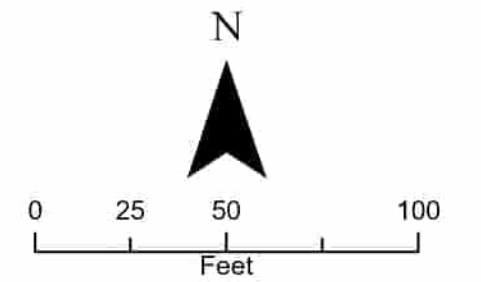
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Post-Construction Photo



- Construction Photo Point (Selected)
- Construction Photo Point (Other)
- Target Action Area
- NTCRA Disturbance Area



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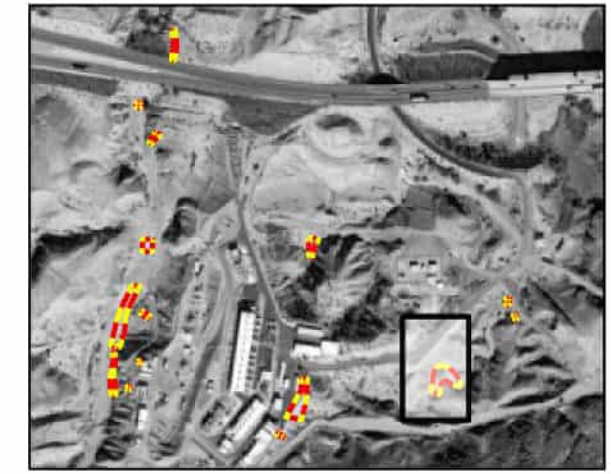
APPENDIX B-34
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



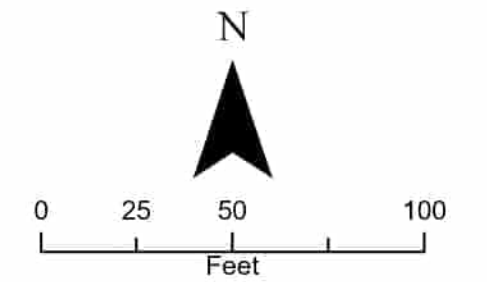
Pre-Construction Photo



Post-Construction Photo



- Construction Photo Point (Selected)
- Construction Photo Point (Other)
- Target Action Area
- NTCRA Disturbance Area



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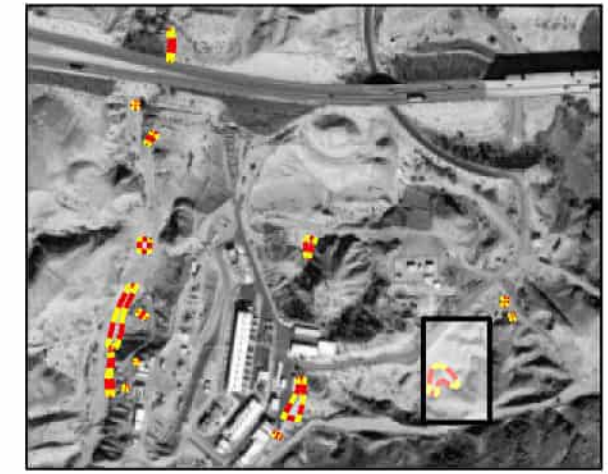
APPENDIX B-35
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



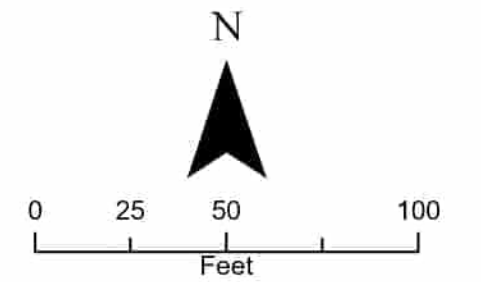
Pre-Construction Photo



Post-Construction Photo



- Construction Photo Point (Selected)
- Construction Photo Point (Other)
- Target Action Area
- NTCRA Disturbance Area



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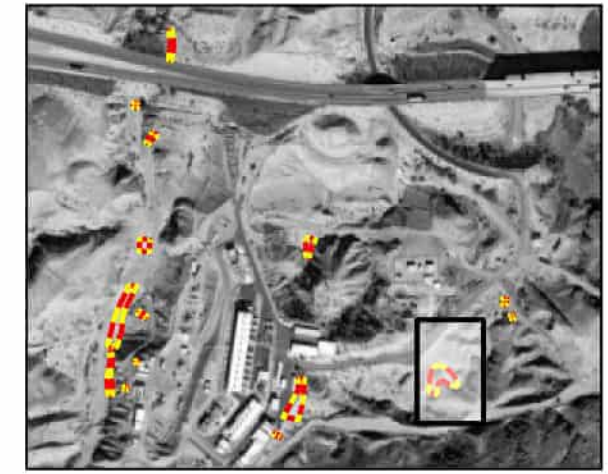
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Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



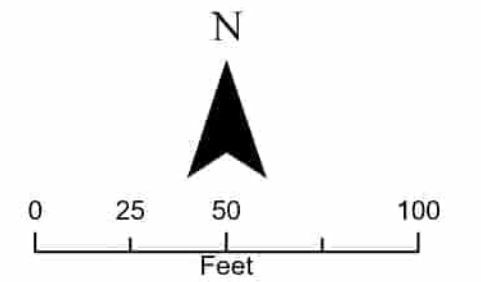
Pre-Construction Photo



Post-Construction Photo



- Construction Photo Point (Selected)
- Construction Photo Point (Other)
- Target Action Area
- NTCRA Disturbance Area



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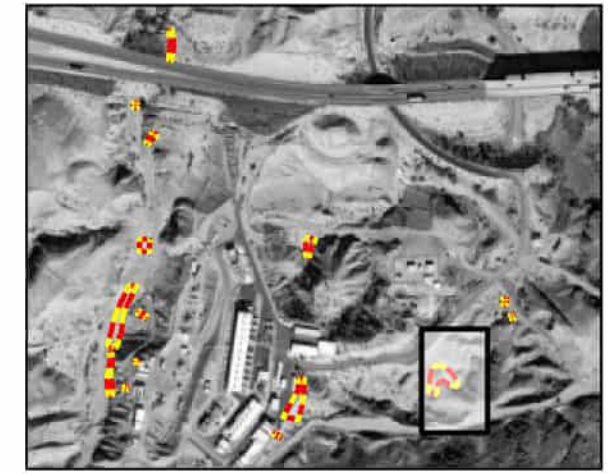
APPENDIX B-37
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



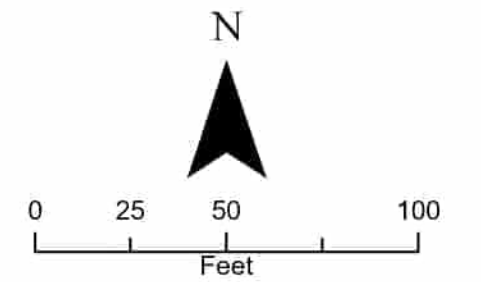
Pre-Construction Photo



Post-Construction Photo



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- Target Action Area
- NTCRA Disturbance Area

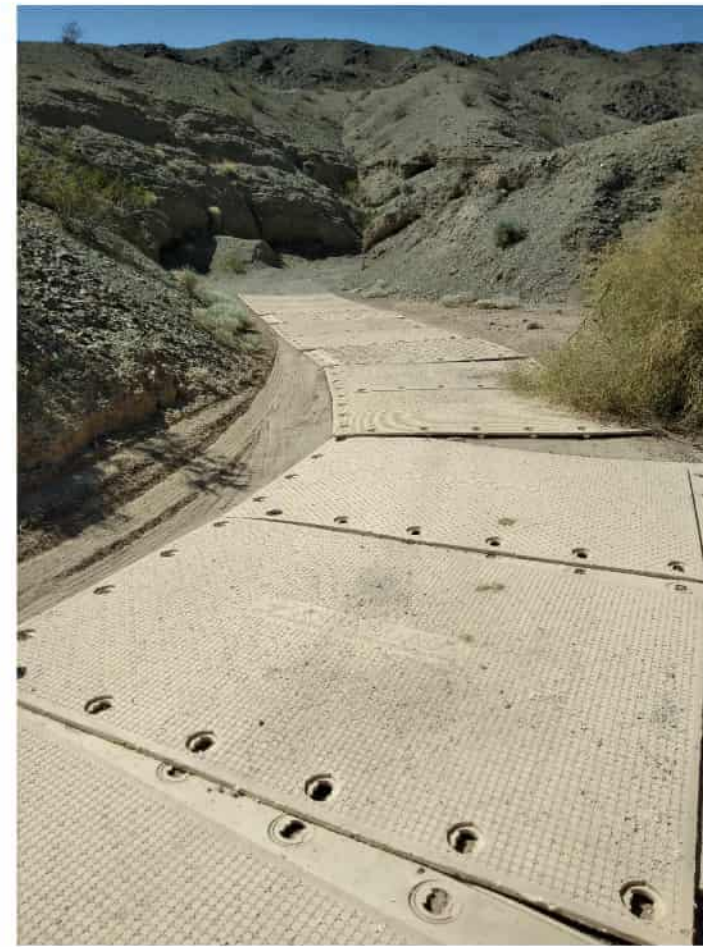


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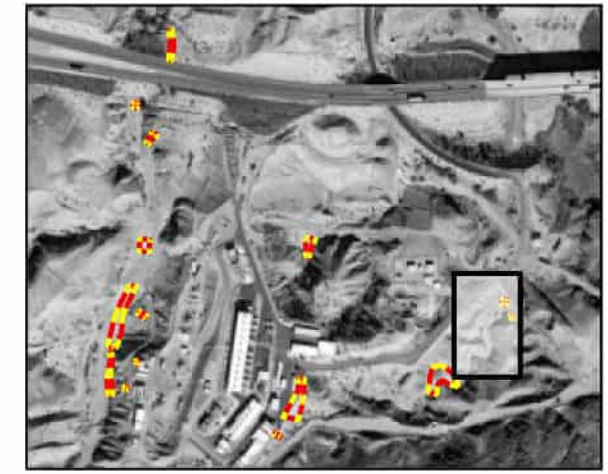
APPENDIX B-38
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



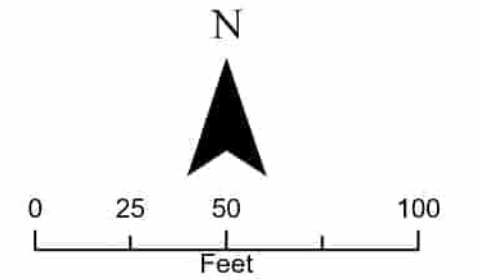
Pre-Construction Photo



Post-Construction Photo



- Construction Photo Point (Selected)
- Construction Photo Point (Other)
- Target Action Area
- NTCRA Disturbance Area



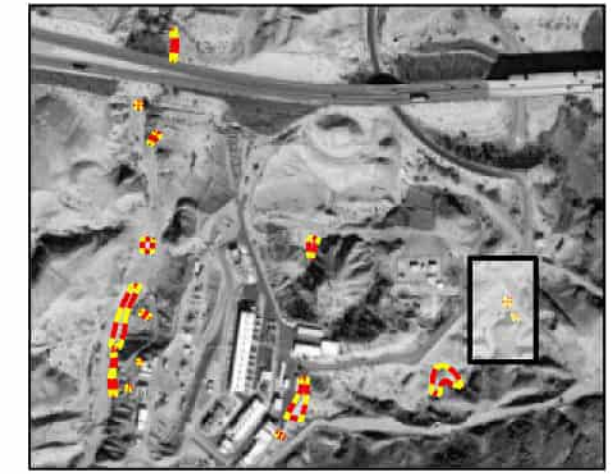
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APPENDIX B-39
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
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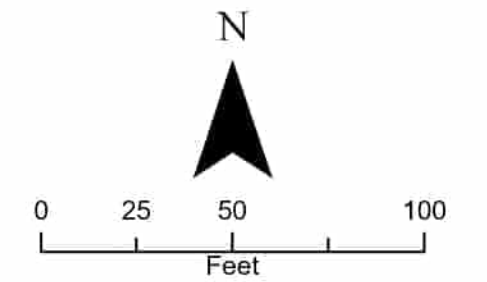


Pre-Construction Photo

Post-Construction Photo

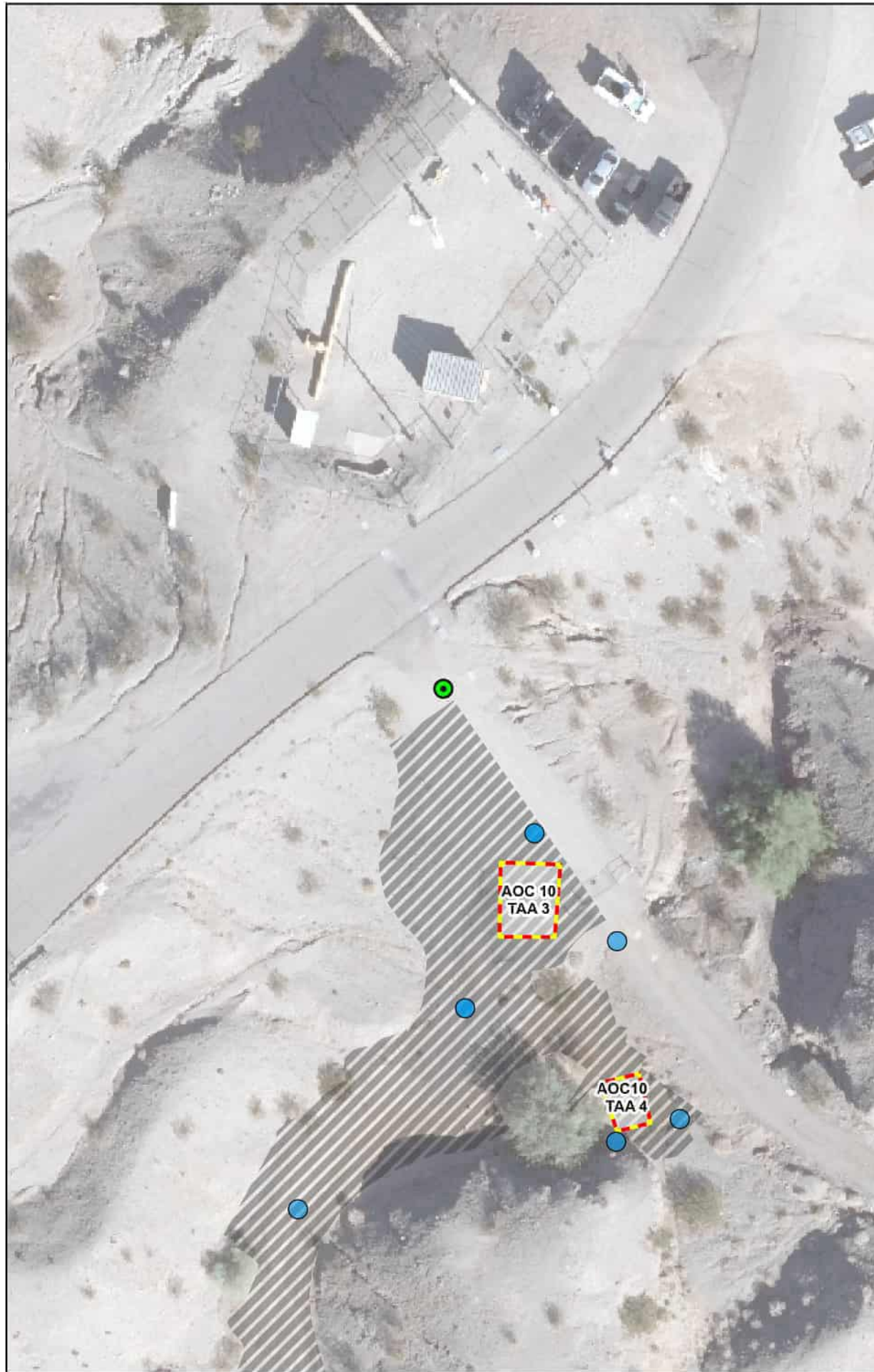


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- ▨ NTCRA Disturbance Area



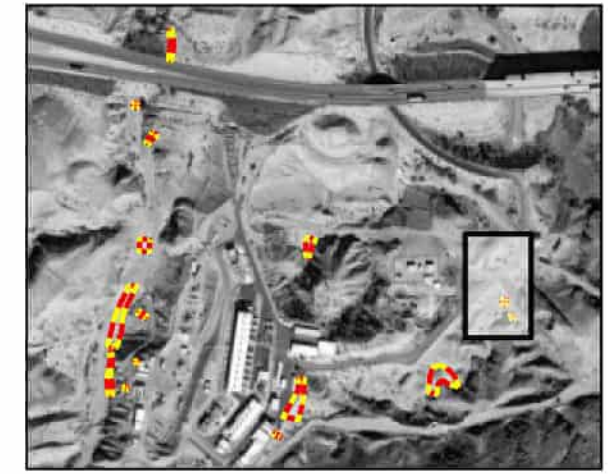
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APPENDIX B-40
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California

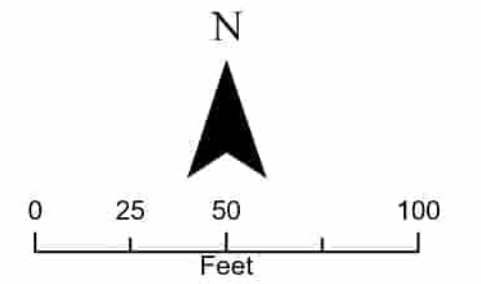


Pre-Construction Photo

Post-Construction Photo



- Construction Photo Point (Selected)
- Construction Photo Point (Other)
- Target Action Area
- NTCRA Disturbance Area



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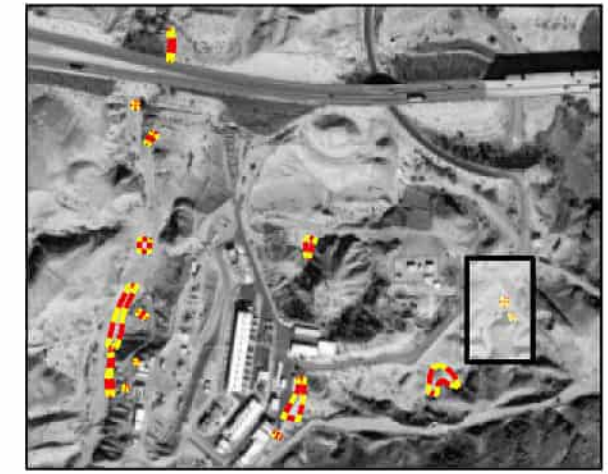
APPENDIX B-41
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



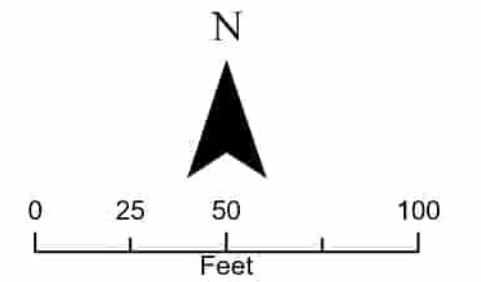
Pre-Construction Photo



Post-Construction Photo

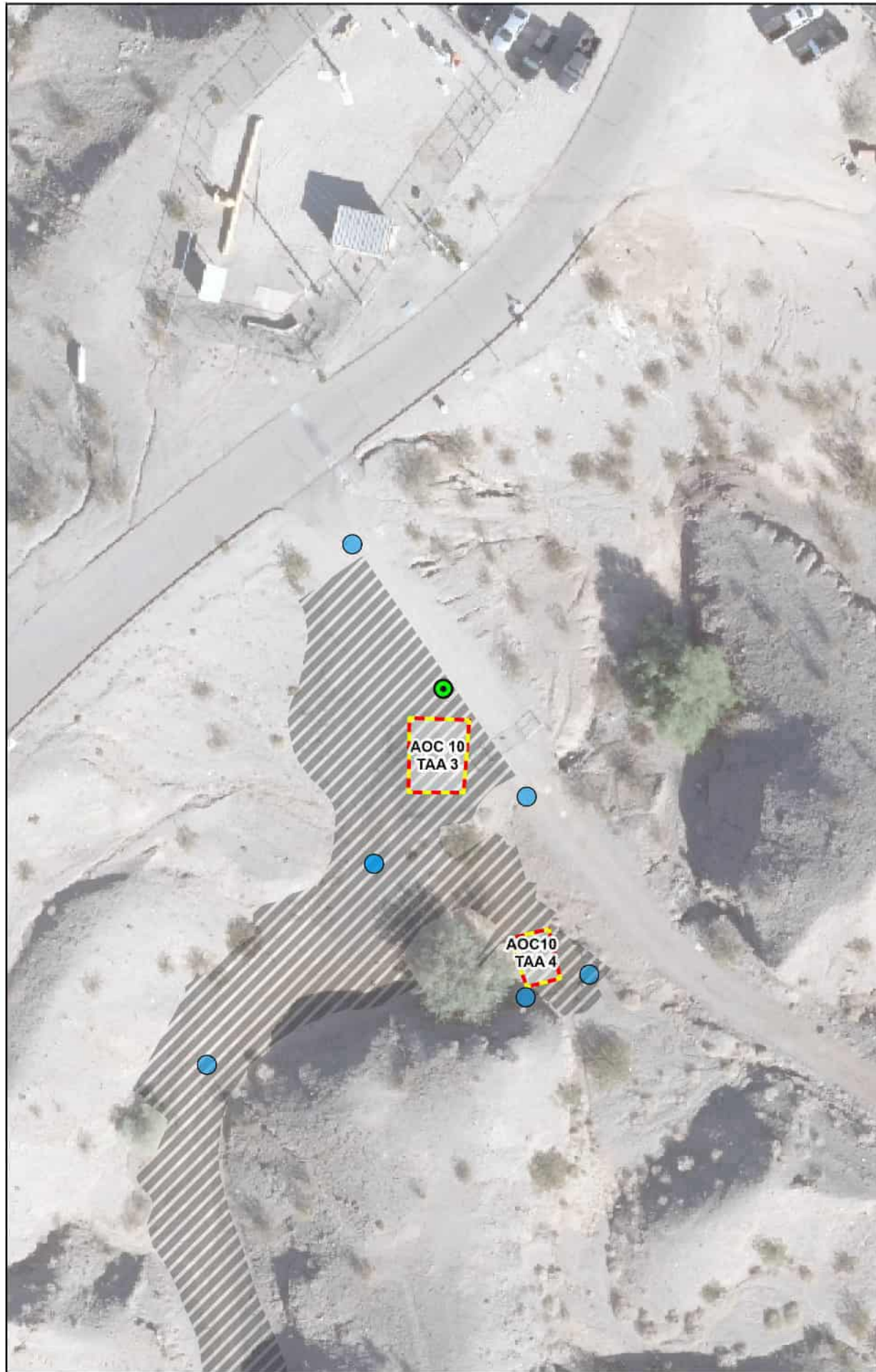


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- Target Action Area
- NTCRA Disturbance Area



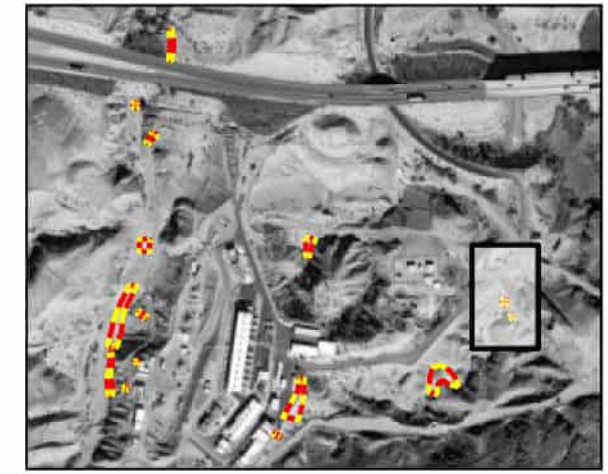
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APPENDIX B-42
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California

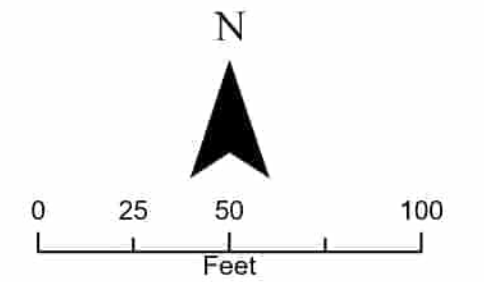


Pre-Construction Photo

Post-Construction Photo

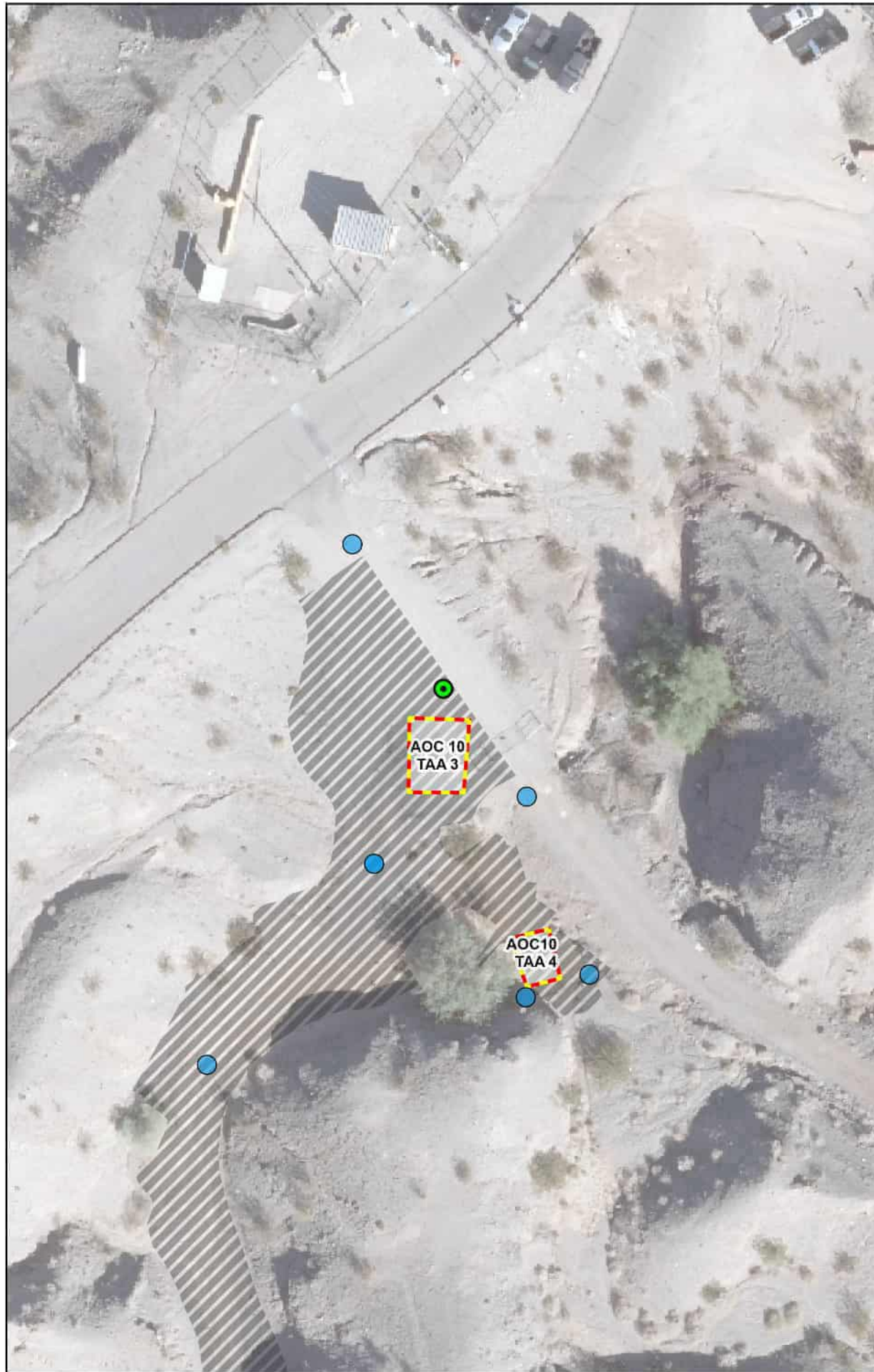


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- NTCRA Disturbance Area



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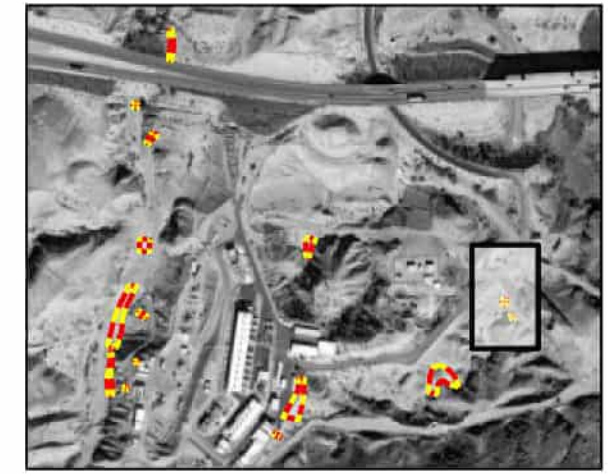
APPENDIX B-43
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



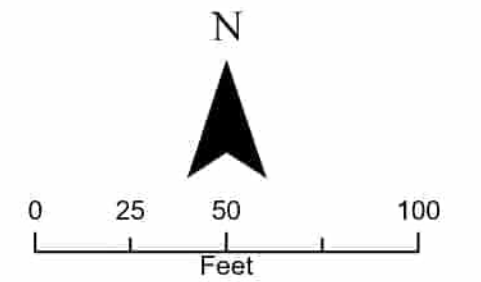
Pre-Construction Photo



Post-Construction Photo

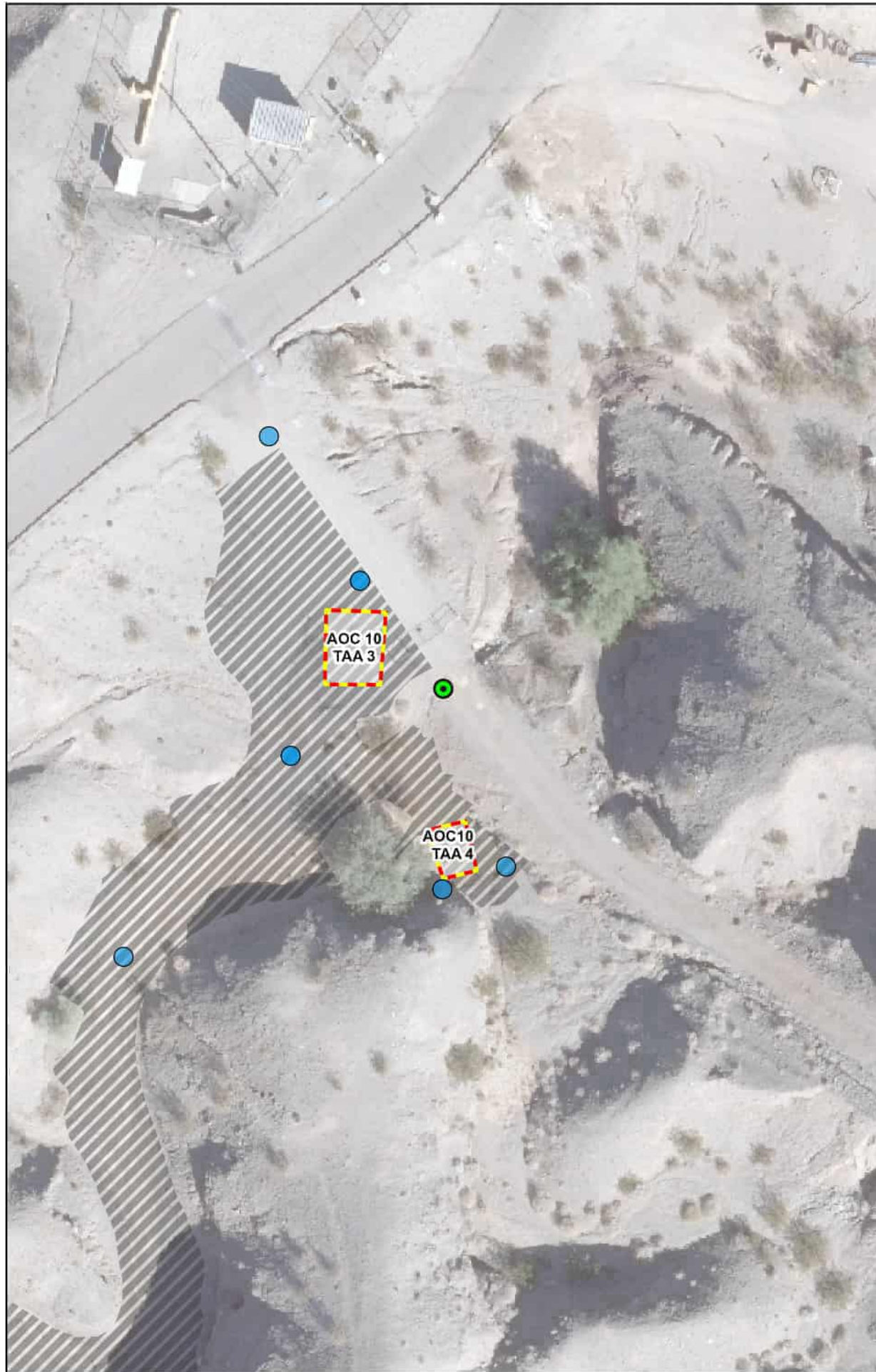


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- Target Action Area
- NTCRA Disturbance Area



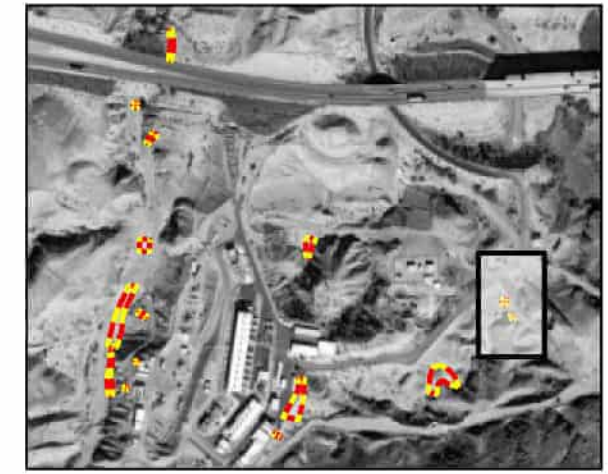
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APPENDIX B-44
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California

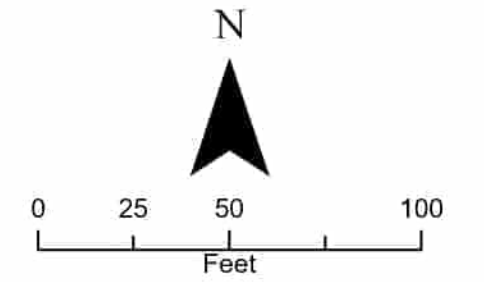


Pre-Construction Photo

Post-Construction Photo



- Construction Photo Point (Selected)
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- Target Action Area
- NTCRA Disturbance Area

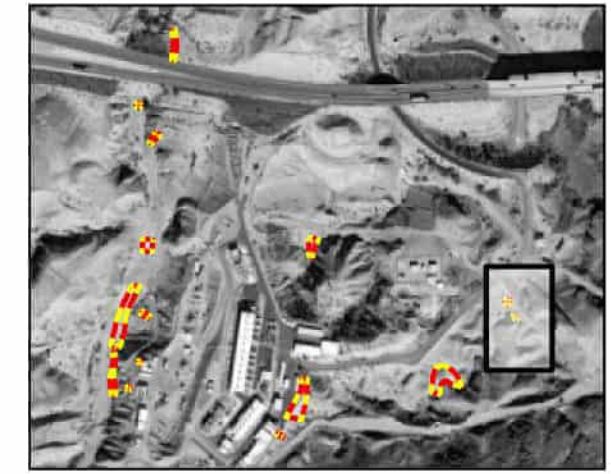


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APPENDIX B-45
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California

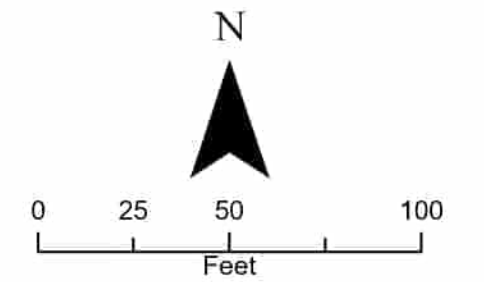


Pre-Construction Photo



- Construction Photo Point (Selected)
- Construction Photo Point (Other)
- Target Action Area
- NTCRA Disturbance Area

Post-Construction Photo



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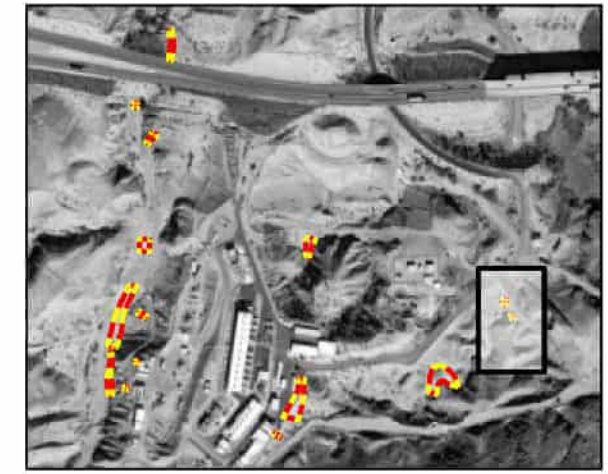
APPENDIX B-46
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California



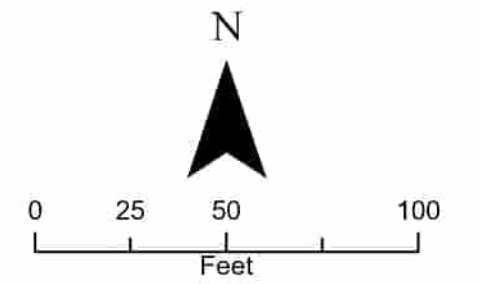
Pre-Construction Photo



Post-Construction Photo



- Construction Photo Point (Selected)
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- Target Action Area
- NTCRA Disturbance Area



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APPENDIX B-47
Photo Point Locations
 NTCRA BA Completion Report
 PG&E Topock Compressor Station
 Needles, California

D-2. Revised Tables 4-1 through 4-5

Revised Table 4-1. Summary of Compliance with Identified Applicable, Relevant, and Appropriate Requirements and Other Advisories, Criteria, or Guidance To Be Considered

Soil Non-Time Critical Removal Action Completion Report

PG&E Topock Compressor Station, Needles, California

Item No.	Category	Citation	Determination	Description in Soil EE/CA	Compliance Responsibility	Actions Taken for Compliance with this Measure
1	Federal Chemical-Specific	RBRGs for Risk Drivers in Soil at Topock site (Arcadis 2019, 2020)	TBC	Final Human Health and Ecological RBRGs were estimated for four significant contributors to soil risks at the Topock site, namely total chromium, Cr(VI), copper, and D/F TEQ.	PG&E	Soil sampling and analysis were used to track attainment of the RBRGs for the following compounds: <ul style="list-style-type: none"> Total chromium Cr(VI) Copper D/F TEQ Analytical data are included in Appendix E of the Soil NTCRA Completion Report.
2	Federal Chemical-Specific	RBCs for Soil Management Purposes (Arcadis 2020)	TBC	Final Human Health and Ecological RBCs were estimated for soil management at the Topock site.	PG&E	Soil sampling and analysis were used to track attainment of the RBCs for soil management. Additional data were collected, as needed, to meet the waste profiling requirements for disposal at permitted landfills. Analytical data are included in Appendix G of the Soil NTCRA Completion Report.
3	Federal Chemical-Specific	Soil ECVs (Arcadis 2018)	TBC	Soil ECVs were developed for Topock site COPCs (metals and PAHs) using both LOAEL or concentrations and no-adverse effect levels or concentrations based on target toxicity values (i.e., no unacceptable risk is expected at less than these values) for the protection of the ecological receptors at the Topock site based on the representative receptors selected for the ecological risk assessment.	PG&E	The Soil ECVs were used for soil management in accordance with the Groundwater Remedy SMP. Soil sampling and analysis were used to track attainment of this TBC. Additional data were collected, as needed, to meet the waste profiling requirements for disposal at permitted landfills. Analytical data are included in Appendix G of the Soil NTCRA Completion Report.
4	California Chemical-Specific	Ambient or Background Soil Concentrations at Topock site (CH2M 2009; Jacobs 2019)	TBC	Ambient or background levels of inorganic chemicals in soils in or around the Topock site were calculated to assist in remedial planning, risk assessment, and remedial and soil management decision making.	PG&E	The ambient or background levels were used for soil management in accordance with the Groundwater Remedy SMP. Soil sampling and analysis were used to track attainment of this TBC. Additional data were collected, as needed, to meet the waste profiling requirements for disposal at permitted landfills. Analytical data are included in Appendices E and G of the Soil NTCRA Completion Report.
5	California Chemical-Specific	DTSC HHRA Note No. 2, Dioxin-TEQ Soil Remediation Goals for Sites in California (DTSC 2017)	TBC	HERO recommends the following remedial goal for soils contaminated by dioxins and dioxin like-compounds: D/F TEQ Humans – 50 ng/kg	PG&E	HERO D/F TEQ Humans of 50 ng/kg was considered but not used for the Soil NTCRA. Instead, D/F TEQ Human of 89 ng/kg, a Topock-specific human health RBC, was used for soil management purposes; and D/F TEQ Human (Hiker scenario) of 100 ng/kg, RBRG, was used to track attainment of the cleanup goal.
6	California Chemical-Specific	DTSC HHRA Note No. 3, DTSC-modified Screening Levels (DTSC 2019, 2020)	TBC	The DTSC HERO HHRA Note No. 3 presents recommended screening levels for constituents in soil, tap water, and ambient air.	PG&E	DTSC HERO Note 3 (DTSC 2019, 2020) for toxaphene was used for soil management in accordance with the Groundwater Remedy SMP. Soil sampling and analysis were used to track attainment of this TBC.
7	Federal Chemical-Specific	EPA "Regional Screening Levels for Chemical Contaminants at Superfund Sites" (EPA 2016)	TBC	Establishes comparison values for residential and commercial/industrial exposures to soil, air, and tap water for screening chemicals at Superfund sites.	PG&E	EPA RSLs for several organic compounds were used for soil management in accordance with the Groundwater Remedy SMP. Soil sampling and analysis were used to track attainment of this TBC. Additional data were collected, as needed, to meet the waste profiling requirements for disposal at permitted landfills. Analytical data are included in Appendix G of the Soil NTCRA Completion Report.
8	California Chemical-Specific	SF RWQCB ESLs for residential direct exposure	TBC	Conservative screening levels for chemicals found at sites with contaminated soil and groundwater. These levels are intended to help expedite the identification and evaluation of potential environmental concerns at contaminated sites. ESLs address a range of media (soil, groundwater, soil gas, and indoor air) and a range of concerns (e.g., impacts to drinking water, vapor intrusion, and impacts to aquatic habitat).	PG&E	The SF RWQCB ESL for TPH-g was used for soil management in accordance with the Groundwater Remedy SMP. Soil sampling and analysis were used to track attainment of this TBC. Additional data were collected, as needed, to meet the waste profiling requirements for disposal at permitted landfills. Analytical data are included in Appendix G of the Soil NTCRA Completion Report.
9	Federal Chemical-Specific	Occupational Safety and Health Act (29 USC 651, et seq.; 29 CFR 1910.1026)	TBC	Sets standards for workers engaged in activities associated with remedial actions under the NCP, including occupational exposure to Cr(VI). Pursuant to the NCP preamble, Occupational Safety and Health Act standards are not ARARs but may be included as TBCs.	PG&E	The Soil NTCRA PHSEP was implemented and complied with during the removal action.

Item No.	Category	Citation	Determination	Description in Soil EE/CA	Compliance Responsibility	Actions Taken for Compliance with this Measure
10	Federal Action-Specific	Clean Water Act. Stormwater Management (33 USC 1342, 40 CFR 122, 40 CFR 125)	Relevant and appropriate	These regulations define the necessary requirements with respect to the discharge of stormwater under the NPDES program. These regulations will apply if proposed removal actions disturb more than 1 acre of soil and result in stormwater runoff that comes in contact with any removal activity, or if proposed removal actions involve specified industrial activities. NPDES requirements regulate discharges of pollutants from any point source into waters of the United States.	PG&E	The Soil NTCRA did not involve any point source discharge to waters of the United States (e.g., Colorado River, BCW). The total acreage of disturbance was more than 1 acre. Therefore, measures to control stormwater runoff and erosion during the removal were implemented, as specified in the BMPs Plan presented in the Soil NTCRA Work Plan (Jacobs 2022a).
11	Federal Action-Specific	Federal Water Pollution Control Act (Clean Water Act) (33 USC 1344, 40 CFR 230.10)	Applicable	This section of the Clean Water Act prohibits certain activities with respect to onsite wetlands and waterways. No discharge of dredged or fill material will be permitted if there is a practicable alternative to the proposed activity that would have less adverse impact to the aquatic ecosystem. Minimization measures will be implemented to minimize impacts to wetland and non-wetland waters of the United States within the TAAs. All efforts will be taken to avoid jurisdictional resources to the extent practicable. Although the USACE did not provide a list of measures that may be taken to reduce impacts to jurisdictional waters and wetlands for the Topock site groundwater remedy, PG&E developed standard BMPs to use in lieu of measures that would have been included in a Section 404 Clean Water Act permit. Any soil removal action in Section 404 jurisdictional washes will comply with the same BMPs.	PG&E	BCW is a jurisdictional water of the United States and the State of California. Several TAAs of the Soil NTCRA (AOC1 TAA1, AOC1 TAA2, SWMU1 TAA1, and SWMU1 TAA2) are located in BCW; therefore, impacts to this jurisdictional resource could not be avoided. However, minimization measures were implemented to minimize impacts to BCW during the Soil NTCRA. Examples include: <ul style="list-style-type: none"> ▪ All personnel received environmental awareness training before construction. ▪ All field activities were conducted under the supervision of an FCR. Qualified, onsite Biologists conducted preconstruction surveys of the entire approved work areas before ground-disturbing activities and completed daily biology checks at each work site. ▪ Listed species were not encountered during the Soil NTCRA construction. ▪ No discharge to waters of the United States and the State of California or the Colorado River occurred. ▪ No spoil piles were located within the TAAs during non-working hours. ▪ Spills or releases of oil or petroleum products were immediately removed. ▪ Straw wattles were placed downstream of excavation areas. ▪ Riprap was placed on disturbed areas in BCW to reduce erosion. ▪ All trash and debris were removed from the TAAs daily. ▪ Portable toilets were located away from drainage and traffic areas. ▪ Rumble plates or graveled entrances and exits were used to reduce track-outs. ▪ Vehicle traffic was restricted to established roadways or routes only.
12	Federal Action-Specific	Fish and Game Code Section 1602 Lake and Streambed Alteration	Applicable	Fish and Game Code 1602 requires an entity to notify California Department of Fish and Wildlife before commencing an activity that will substantially divert or obstruct the natural flow, or substantially change or use any material from the bed, channel or bank or any river, stream, or lake. The CDFW (CDFW 2013) requires compliance with avoidance and minimization measures previously agreed upon with PG&E for project implementation in lieu of a Lake or Streambed Alteration Agreement pursuant to CERCLA Section 121(e) for all work conducted in CDFW jurisdictional washes. Any soil removal action in CDFW jurisdictional washes will comply with the same avoidance and mitigation measures.	PG&E	The ARARs were implemented as directed. CDFW Avoidance and Minimization Measures (Appendix I of the Soil NTCRA Work Plan) were implemented, as described in Item 11 of this table.
13	Federal Action-Specific	ESA (16 USC 1531, et seq., 50 CFR 402)	Applicable	The ESA and its implementing regulations makes it unlawful to remove or "take" threatened and endangered plants and animals, and protects their habitats by prohibiting certain activities. Examples of endangered species in or around the Topock site may include southwestern willow flycatcher, desert tortoise, and Yuma Ridgway's Rail. Removal actions selected for the site will not result in the take of, or adverse impacts to, threatened and endangered species or their habitats, as determined based on consultation with the USFWS under ESA Section 7. Mitigation measures will be implemented in accordance with the Biological Assessment (Jacobs 2021) and the BIAMP (Jacobs 2014) to avoid project-related risks to endangered species that could result from removal actions.	PG&E	Conservation and species-specific mitigation measures specified in the Soil NTCRA BA (Jacobs 2021) were implemented during the Soil NTCRA. A summary of compliance with the BA measures is presented in Table A-1 of the <i>Soil NTCRA Biological Resources Completion Report</i> (Jacobs 2024).
14	Federal Action-Specific	Migratory Bird Treaty Act (16 USC 703-712)	Applicable	This Act makes it unlawful to "take, capture, kill" or otherwise impact a migratory bird or any nest or egg of a migratory bird. The HNWR, part of which makes up the Topock	PG&E	The ARARs were implemented as directed. For details, refer to Table 4-5, Compliance with the BIAMP.

Item No.	Category	Citation	Determination	Description in Soil EE/CA	Compliance Responsibility	Actions Taken for Compliance with this Measure
				<p>site, was created as a refuge and breeding ground for migratory birds and other wildlife; therefore, there is potential for contact with migratory birds during proposed removal activities.</p> <p>The BIAMP specifies measures to avoid project-related risks to avian wildlife that could result from project activities. The BIAMP will be implemented during removal action.</p>		
15	California Action-Specific	CCR Title 27, Environmental Protection	Applicable	<p>Title 27 regulates discharges of wastewater to land, including evaporation ponds, percolation ponds, or subsurface leach fields.</p> <p>Any disposal of wastewater to the existing TCS evaporation ponds must meet the WDRs Order No. R7-2018-0022. If it becomes necessary to amend the WDRs for the ponds to accept wastewater from the proposed removal action, a revised ROWD would be required.</p>	PG&E	Wastewater from soil remediation activities is currently not a permitted influent to the TCS ponds. No wastewater from the Soil NTCRA was disposed of at the ponds.
16	California Action-Specific	Hazardous Waste Control Law and Regulations (22 CCR Division 4.5, Chapters 11, 12, 14, 18)	Applicable	<p>The California Hazardous Waste Control Law and Regulations establish requirements for hazardous waste generators and operators of hazardous waste treatment, storage, or disposal units, and for corrective action taken in response to releases of hazardous waste from regulated units. Hazardous waste generators must complete the following actions:</p> <ul style="list-style-type: none"> ▪ Determine whether their waste is hazardous ▪ Manage the waste in accordance with specified requirements for accumulation in tanks and containers ▪ Use a hazardous waste manifest for offsite transportation of hazardous waste ▪ Send hazardous waste to an appropriately permitted offsite treatment or disposal facility, and retain specified records <p>These requirements will apply to all hazardous waste generated by onsite remedial activities. Units constructed to treat hazardous waste as part of the remediation must comply with additional operational and closure requirements.</p> <p>The management of excavated or displaced materials will be in accordance with the Groundwater Remedy SMP (CH2M 2015a; Jacobs 2022b).</p>	PG&E	<p>The ARARs were implemented as directed. Excavated soil was managed in accordance with the Waste Management Plan, Appendix F of the Soil NTCRA Work Plan.</p> <p>Detailed descriptions of how wastes, including contaminated soil and debris, generated from Soil NTCRA were sampled, characterized, and profiled for offsite disposal are included in Section 2.8 of this Soil NTCRA Completion Report. In general, three types of wastes were generated from Soil NTCRA:</p> <ul style="list-style-type: none"> ▪ RCRA hazardous waste – Contaminated soil and debris from AOC10 TAA1, and metal pipe and concrete with heavy metals connecting to old TCS-4 well ▪ Non-RCRA hazardous waste – Contaminated soil with ACM from AOC14 TAA1, and contaminated soil from AOC10 TAA1 and SWMU1 TAA2 ▪ Nonhazardous waste – Contaminated soil from various TAAs <p>Waste profile applications were submitted to the applicable permitted landfills. After a waste profile was approved by the landfill, shipping paperwork was prepared to send the wastes offsite. RCRA hazardous wastes from the Soil NTCRA were sent to US Ecology landfill in Beatty, Nevada. Non-RCRA hazardous wastes and nonhazardous wastes were sent to Republic Services LaPaz Landfill in Parker, Arizona.</p>
17	California Action-Specific	MDAQMD, Rule 403 – Fugitive Dust	Applicable	<p>This rule sets the standards to minimize fugitive dust emissions from remedial actions. For example,</p> <ul style="list-style-type: none"> ▪ Must take “every reasonable precaution” to minimize dust emissions from soil disturbing activities (e.g., excavation, grading, land clearing) ▪ Must take “every reasonable precaution” to keep their operations from depositing visible particulate matter on public roadways (clean equipment prior to travel on paved streets, remove any deposited material promptly) ▪ If peak winds are less than 25 mph and 15-minute average wind speed is less than 15 mph: <ul style="list-style-type: none"> – Must not conduct transport, handling, construction, or storage activities that cause fugitive dust that remains visible beyond the property line – Must not cause PM concentrations exceeding 100 µg/m³, measured as the difference between upwind and downwind samples collected on high-volume samplers at the property line for a minimum of 5 hours 	PG&E	<p>The ARARs were implemented as directed. Example BMPs to control fugitive dust implemented during the Soil NTCRA included:</p> <ul style="list-style-type: none"> ▪ Used periodic watering for short-term stabilization of disturbed surface areas to minimize visible fugitive dust emissions. ▪ Used a water truck to maintain moist, disturbed surfaces; and actively spread water during visible dusting episodes. ▪ Covered loaded haul vehicles while operating on publicly maintained paved surfaces. ▪ Stabilized using soil binders. ▪ Cleaned up project-related track-out or spills on publicly maintained paved surfaces within 24 hours. ▪ Curtail nonessential earthmoving activity under high wind conditions.
18	California Action-Specific	Requirement for Land Use Covenants (22 CCR 67391.1)	Relevant and Appropriate	<p>This regulation requires appropriate restrictions on use of property if a proposed remedial alternative results in hazardous materials remaining at the property at levels that are not suitable for unrestricted use of the land. This is an ARAR with respect to privately owned land at the Topock Site.</p> <p>A Land Use Covenant and Agreement was made between PG&E and DTSC for PG&E property (APN 0650-161-08) at the site. Removal action selected for the site will be conducted in compliance with the Environmental Restrictions of the Covenant.</p>	PG&E	The ARARs were implemented as directed.

Item No.	Category	Citation	Determination	Description in Soil EE/CA	Compliance Responsibility	Actions Taken for Compliance with this Measure
19	Federal Action-Specific	Clean Air Act (42 USC 7401, et seq.) National Ambient Air Quality Standards (40 CFR 50)	Relevant and Appropriate	These ambient air quality standards define levels of air quality to protect the public health. National Ambient Air Quality Standards are not enforceable in and of themselves, but they may be used as guidance if removal activities create potential air quality impacts.	PG&E	Example BMPs to reduce construction-related emissions used at this Topock site include: <ul style="list-style-type: none"> Contractor maintained a list of all operating equipment in use on the project site. The construction equipment lists the makes, models, and numbers of construction equipment onsite. Equipment was properly serviced and maintained in accordance with the manufacturer's recommendations. Nonesential idling of construction equipment was restricted to 5 minutes or less, in compliance with California Air Resources Board's Rule 2449, to the extent practicable.
20	Federal Action-Specific	Federal Noxious Weed Act of 1974 Public Law 93-629 (7 USC 2801, et seq.)	Applicable	Requires the use of integrated management systems to control or contain undesirable plant species. Applicable to onsite response activities to control, eradicate, or prevent or retard the spread of such weeds.	PG&E	To date, the introduction of new noxious weeds from outside of California to the restoration areas affected by the Soil NTCRA in California on federal lands has not been observed. PG&E will coordinate with federal landowners and managers on activities to control, eradicate, or prevent or retard the spread of undesirable plant species should they be observed.
21	Federal Action-Specific	EO 13186 – Responsibilities of Federal Agencies to Protect Migratory Birds	TBC	This EO directs executive departments and agencies to take certain actions to further implement the Migratory Bird Treaty Act, including supporting the conservation intent of the migratory bird conventions by integrating bird conservation principles, measures, and practices into agency activities and by avoiding or minimizing, to the extent practicable, adverse impacts on migratory bird resources when conducting agency actions.	DOI, USFWS	PG&E defers to DOI and USFWS. Mitigation measures specified in the BIAMP were implemented; refer to Revised Table 4-5, Compliance with BIAMP for details.
22	Federal Action-Specific	EO 13112 – Management of Invasive Species	TBC	Requires that each federal agency whose action may affect the status of invasive species take certain actions to prevent the introduction of invasive species and provide for their control, and minimize the economic, ecological, and human health impacts that invasive species cause.	DOI, USFWS	PG&E defers to DOI and USFWS.
23	Federal Location-Specific	FLPMA (43 USC 1701, et seq.)	Applicable	In managing public lands, BLM is directed to take any action necessary to prevent unnecessary or undue degradation of the lands. Actions taken on the public land (i.e., BLM-managed land) portions of the Topock site should provide the optimal balance between authorized resource use and the protection and long-term sustainability of sensitive resources. Figure 2-1 shows property managed by BLM.	BLM	PG&E defers to BLM. PG&E implemented the Soil NTCRA as approved by DOI.
24	Federal Location-Specific	National Wildlife Refuge System Administration Act (16 USC 668dd-ee, 50 CFR 27)	Applicable	This Act governs the use and management of the HNWR portion of the Topock site. It requires that the USFWS evaluate ongoing and proposed activities and uses to ensure that such activities are appropriate and compatible with the mission of the National Wildlife Refuge System, as well as the specific purposes for which the HNWR was established. Prior to the selection of a removal action by DOI and USFWS, that removal action must be found by the Refuge Manager to be both an appropriate use of the HNWR and compatible with the mission of the HNWR and the Refuge System as a whole. Any removal action proposed to be implemented on the HNWR that was not selected by DOI and USFWS would be subject to the formal appropriate use and compatibility determination process. Portions of the site are located in the HNWR (Figure 2-1).	USFWS and DOI	DOI's Action Memorandum (DOI 2021) was approved by USFWS; they manage refuge lands. Therefore, the selected removal action has been determined to be an appropriate use of the HNWR and compatible with the mission of the HNWR and the Refuge System as a whole.
25	Federal Location-Specific	Fish and Wildlife Conservation Act (16 USC 2901-2911)	Relevant and Appropriate	Federal departments and agencies are encouraged to use their authority to conserve nongame fish and wildlife and their habitats and assist states in the development of their conservation plans.	USFWS	PG&E will coordinate with HNWR regarding the implementation of the approved HNWR Habitat Restoration Plan (CH2M 2015b) on HNWR lands.
26	Federal Location-Specific	Fish and Wildlife Coordination Act (16 USC 661-667e)	Applicable	This Act requires that any federally funded or authorized modification of a stream or other water body must provide adequate provisions for conservation, maintenance, and management of wildlife resources and their habitat. Necessary measures should be taken to mitigate, prevent, and compensate for project-related losses of wildlife resources.	PG&E	The ARARs were implemented as directed. CDFW Avoidance and Minimization Measures (Appendix I of the Work Plan) were implemented, as described in Item 11 in this table.

Item No.	Category	Citation	Determination	Description in Soil EE/CA	Compliance Responsibility	Actions Taken for Compliance with this Measure
27	Federal Location-Specific	NHPA (54 USC 300101, et seq., 36 CFR 800)	Applicable	This statute and the implementing regulations require that a federal agency undertaking a removal action at or near historic properties must consider the effects of such undertaking on the historic properties. The federal agency must determine, based on consultation, if an undertaking's effects would be adverse and seek ways that could avoid, mitigate, or minimize such adverse effects on a National Register eligible property. The agency must then specify how adverse effects will be avoided or mitigated or acknowledge that such effects cannot be avoided or mitigated. Measures to avoid or mitigate adverse effects of any selected removal action that are adopted by the agency through federal consultation must be implemented by the removal action to comply with the NHPA. Properties on and near the site that are eligible for or listed on the NRHP include Native American cultural resources and elements of the historic "built environment." In recognition of this, all removal activities will be conducted in ways that avoid, minimize, or mitigate adverse effects to cultural and historic properties within the APE in accordance with the Programmatic Agreement (BLM 2010, 2017), the CHPMP (BLM 2012), and the CHPTP (AE 2018), and in consultation with the Tribes.	BLM, ACHP, California and Arizona SHPOs, USFWS, and PG&E are parties to the PA	Refer to Revised Table 4-2.
28	Federal Location-Specific	National Archaeological and Historical Preservation Act (16 USC 469, et seq.)	Applicable	This statute requires the evaluation and preservation of historical and archaeological data that might otherwise be irreparably lost or destroyed through any alteration of terrain as a result of federal construction projects or a federally licensed activity.	Federal agencies, PG&E	Refer to Revised Tables 4-2, 4-3, and 4-4.
29	Federal Location-Specific	Archaeological Resources Protection Act (16 USC 470aa-ii, et seq., 43 CFR 7)	Applicable	This statute provides for the protection of archaeological resources located on public and Tribal lands. The Act establishes criteria that must be met for the land manager's approval of any excavation or removal of archaeological resources if a proposed activity involves soil disturbances.	Federal agencies, PG&E	Refer to Revised Tables 4-2, 4-3, and 4-4.
30	Federal Location-Specific	Historic Sites Act (54 USC 320101 et seq., 36 CFR 65)	Applicable	Pursuant to this Act, federal agencies must consider the existence and location of historic sites, buildings, and objects of national significance, using information provided by the NPS, to avoid undesirable impacts upon such landmarks. There are no designated historic landmarks within the site, although Public Law 106-45, 113 Stat. 224 (1999) provides for a cooperative program "...for the preservation of the Route 66 corridor..." through grants and other measures.	Federal agencies, PG&E	Refer to Revised Tables 4-2, 4-3, and 4-4.
31	Federal Location-Specific	Native American Graves Protection and Repatriation Act (25 USC 3001 et seq., 43 CFR 10)	Applicable	This Act regulates the removal and trafficking of human remains and cultural items, including funerary and sacred objects. If removal activities result in the discovery of Native American human remains or related objects, these requirements must be met. Portions of the site contain archaeological areas that may contain human remains.	PG&E	Refer to Revised Tables 4-2 and 4-3.
32	Federal Location-Specific	RFRA (42 USC 2000bb, et seq.)	Relevant and appropriate	Under this Act, the government will not substantially burden a person's exercise of religion, unless the application of the burden is in furtherance of a compelling government interest, and it is the least restrictive means of furthering that compelling interest. To constitute a "substantial burden" on the exercise of religion, a government action must (1) force individuals to choose between following the tenets of their religion and receiving a governmental benefit or (2) coerce individuals to act contrary to their religious beliefs by the threat of civil or criminal sanctions. If any removal action selected imposes a substantial burden on a person's exercise of religion, it must be in furtherance of a compelling government interest and be the least restrictive means of achieving that interest.	Federal agencies (BLM Lead), PG&E	PG&E did not receive Tribal requests to access land for collecting materials, such as plants and mineral, or for traditional, ceremonial, or other purposes during the Soil NTCRA. Tribal Monitors were provided access to monitor all ground-disturbing activities.
33	Federal Location-Specific	AIRFA (42 USC 1996, et seq.)	Relevant and appropriate	This Act requires that the United States protect and preserve for Native Americans their inherent right of freedom to believe, express, and exercise their traditional religions.	Federal agencies (BLM Lead), PG&E	PG&E did not receive Tribal requests to access land for collecting materials, such as plants and mineral, or for traditional, ceremonial, or other purposes during the Soil NTCRA. Tribal Monitors were provided access to monitor all ground-disturbing activities.
34	Federal Location-Specific	RCRA (42 USC 6901, et seq., 40 CFR 264.18)	Applicable	These regulations promulgated under RCRA establish seismic and floodplain considerations that must be followed for treatment, storage, or disposal facilities	PG&E	The Soil NTCRA work area boundary did not include the 100-year floodplain or regulatory floodway.

Item No.	Category	Citation	Determination	Description in Soil EE/CA	Compliance Responsibility	Actions Taken for Compliance with this Measure
				constructed, operated, or maintained within certain distances of fault lines and floodplains. Portions of the Topock site are located on or near a 100-year floodplain.		
35	Federal Location-Specific	Floodplain Management and Wetlands Protection (40 CFR 6.302(a), (b))	Applicable	Before undertaking an action, agencies are required to perform certain measures to avoid the long- and short- term impacts associated with the destruction of wetlands and the occupancy and modification of floodplains and wetlands. The regulation sets forth requirements as means of carrying out the provisions of EOs 11988 and 11990.	DOI, USFW	The Soil NTCRA did not include activities in wetlands or the floodplain.
36	Federal Location-Specific	DOI, BLM, <i>Approved Resource Management Plan and Final Environmental Impact Statement</i> , May 2007	Applicable	The Resource Management Plan provides further direction on how FLPMA requirements will be satisfied.	BLM, DOI	PG&E defers to BLM and DOI. PG&E implemented the Soil NTCRA Work Plan approved by DOI.
37	Federal Location-Specific	EO 8647 (6 CFR 593)	Applicable	This EO establishes the HNWR for the primary purpose of providing migratory bird habitat. Any response action selected must be appropriate and compatible with this purpose, as determined by the Refuge Manager.	USFWS	Refer to Revised Table 4-5.
38	Federal Location-Specific	Appropriate Use Policy 603 FW 1	TBC	This policy elaborates on the appropriate uses of a National Wildlife Refuge, ensuring that such uses contribute to fulfilling the specific refuge's purposes and the National Refuge System's mission.	USFWS	DOI's Action Memorandum (DOI 2021) was approved by USFWS; they manage refuge lands. Therefore, the selected removal action has been determined to be an appropriate use of the HNWR and compatible with the mission of the HNWR and the Refuge System as a whole.
39	Federal Location-Specific	Compatibility Policy 603 FW 2	TBC	This policy specifies the guidelines for determining the compatibility of proposed uses of a National Wildlife Refuge. This determination is done once a proposed use is deemed appropriate.	USFWS	DOI's Action Memorandum (DOI 2021) was approved by USFWS; they manage refuge lands. Therefore, the selected removal action has been determined to be an appropriate use of the HNWR and compatible with the mission of the HNWR and the Refuge System as a whole.
40	Federal Location-Specific	Lower Colorado River National Wildlife Refuges, Comprehensive Management Plan (1994-2014)	Applicable	The Comprehensive Management Plan provides further direction on how compliance with the National Wildlife Refuge System Administration Act, as amended, will be achieved.	USFWS	DOI's Action Memorandum (DOI 2021) was approved by USFWS; they manage refuge lands. Therefore, the selected removal action has been determined to be an appropriate use of the HNWR and compatible with the mission of the HNWR and the Refuge System as a whole.
41	Federal Location-Specific	Programmatic Agreement and Amendment among the BLM, Arizona Historic Preservation Officer, California State Historic Preservation Officer, and the ACHP for the Topock Remediation Project in San Bernardino County, California and Mohave County, Arizona	TBC	The PA is a Topock-specific document that requires the federal agencies, in consultation with the Tribes, SHPOs of Arizona and California, ACHP, PG&E, and other interested parties to ensure that PG&E will conduct all removal activities in ways that avoid, minimize, or mitigate adverse effects to cultural and historic properties within the APE to the maximum extent practicable. In addition, the federal agencies will ensure that PG&E will restore the areas affected by all removal activities to the conditions existing prior to the removal to the extent practicable. During a removal action, the Discovery Protocol (Stipulations IX(A)-(D)) and the Monitoring Protocol (Appendix C) of the PA will be implemented. In addition, Tribal access to areas within the APE for religious, cultural, or spiritual purposes will be implemented in accordance with the Tribal Access Plan for lands under federal management and with the Access Plan for the lands not under federal management.	BLM, ACHP, California and Arizona SHPOs, USFWS, and PG&E are parties to the PA	Refer to Revised Table 4-2.
42	Federal Location-Specific	Cultural and Historic Properties Management Plan, PG&E Topock Compressor Station, Needles, California	TBC	The CHPMP is a Topock-specific document prepared under the PA that specifies measures to avoid or mitigate adverse effects to cultural and historic properties within the APE. PG&E will conduct all removal activities in compliance with these specified measures.	PG&E	Refer to Revised Table 4-3.
43	Federal Location-Specific	Draft Cultural and Historic Property Treatment Plan for	TBC	The Cultural and Historic Property Treatment Plan is a Topock-specific document prepared under the PA that identifies measures to avoid, minimize, or mitigate	PG&E	Refer to Revised Table 4-4.

Item No.	Category	Citation	Determination	Description in Soil EE/CA	Compliance Responsibility	Actions Taken for Compliance with this Measure
		the Topock Compressor Station Groundwater Remediation Project, San Bernardino County, California and Mojave County, Arizona		adverse effects to the maximum extent practicable on the Topock Maze, the TCP, and individual sites that have been determined eligible for listing on the NRHP, such as the trail site (CA-SBR-29943). PG&E will implement the Treatment Plan contemporaneously with all removal activities. All unevaluated sites are treated as eligible for the NRHP and will be avoided to the maximum extent practicable. In accordance with the PA, should unanticipated adverse effects occur as a result of a removal action, the Treatment Plan will be modified to include measures to minimize or mitigate the adverse effects.		
44	Federal Location-Specific	National Register Bulletin 38	TBC	Guidelines for evaluating and documenting traditional cultural properties.	PG&E	Refer to Revised Tables 4-2 and 4-3.
45	Federal Location-Specific	Preservation Brief 36	TBC	Guidelines for planning, treating, and managing historic landscapes.	PG&E	Refer to Revised Table 4-4.
46	Federal Location-Specific	EO 11593	TBC	This EO directs the federal agencies to initiate measures for the protection and enhancement of the cultural environment. These measures include assuring that steps are taken to make records, drawings, and maps, and have such items deposited in the Library of Congress when, as the result of a federal action, a property listed on the NRHP is to be substantially altered.	Federal agencies, PG&E	Refer to Revised Tables 4-2, 4-3, and 4-4.
47	Federal Location-Specific	EO 13175	TBC	Federal agencies are to conduct regular and meaningful consultation and collaboration with Tribal Officials in the development and implementation of federal policies that have tribal implications.	BLM	PG&E defers to BLM.
48	Federal Location-Specific	EO 12898	TBC	Federal agencies will conduct "...activities that substantially affect human health or the environment, in a manner that ensures that such programs, policies, and activities do not have the effect of excluding persons (including populations) from participation in, denying persons (including populations) the benefits of, or subjecting persons (including populations) to discrimination under such programs, policies, and activities, because of their race, color, or national origin."	Federal agencies	PG&E defers to DOI.
49	Federal Location-Specific	EO 13352	TBC	DOI will, to the extent permitted by law, "...implement laws relating to the environment and natural resources in a manner that promotes cooperative conservation."	Federal agencies	PG&E defers to DOI.
50	Federal Location-Specific	Indian Sacred Sites (EO 13007)	TBC	In managing federal lands, the United States "...shall, to the extent practicable, permitted by law, and not clearly inconsistent with essential agency functions, (1) accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners, and (2) avoid adversely affecting the physical integrity of such sacred sites."	Federal agencies	PG&E did not receive Tribal requests to access land for collecting materials, such as plants and mineral, or for traditional, ceremonial, or other purposes during the Soil NTCRA.
51	Federal Location-Specific	EO 11988 – Floodplain Management	TBC	This EO requires evaluation of the potential effects of actions that take place in a floodplain to avoid, to the extent possible, adverse impacts.	Federal agencies	The Soil NTCRA did not include activities in wetlands.
52	Federal Location-Specific	EO 11990 – Responsibilities of Federal Agencies to Protect Wetlands	TBC	This EO requires that potential impacts to wetlands be considered, and as practical, destruction, loss, or degradation of wetlands be avoided.	Federal agencies	The Soil NTCRA did not include activities on the floodplain.
53	California Location-Specific	San Bernardino County Development Code – Noise Standards 83.01.080	Applicable	This Code establishes acceptable sound levels based on receiving land use. Construction, maintenance, repair, or demolition activities are exempt if conducted between 7:00 a.m. and 7:00 p.m., except Sundays and federal holidays.	PG&E	During the Soil NTCRA, noise monitoring was conducted pursuant to mitigation measures NOISE-2 and NOISE-3 specified in the Final SEIR (DTSC 2018). The results of noise monitoring and mitigations implemented are summarized in the Noise Monitoring Summary report included in Appendix D of this Soil NTCRA Completion Report.

Item No.	Category	Citation	Determination	Description in Soil EE/CA	Compliance Responsibility	Actions Taken for Compliance with this Measure
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ACHP = Advisory Council on Historic Preservation
 ACM = asbestos-containing material
 AIRFA = American Indian Religious Freedom Act
 AMM = avoidance and minimization measure
 AOC = area of concern
 APE = area of potential effects
 ARAR = applicable or relevant and appropriate requirement
 BA = Biological Assessment
 BCW = Bat Cave Wash
 BIAMP = Bird Impacts Avoidance and Minimization Plan
 BLM = U.S. Bureau of Land Management
 BMP = best management practice
 CDFW = California Department of Fish and Wildlife
 Cr(VI) = hexavalent chromium
 D/F = dioxins and furans
 DOI = U.S. Department of the Interior
 DTSC = California Department of Toxic Substances Control
 ECV = ecological comparison value
 EE/CA = Engineering Evaluation and Cost Analysis
 EPA = U.S. Environmental Protection Agency

ESL = environmental screening level
 FCR = Field Contact Representative
 FLPMA = Federal Land Policy and Management Act
 HERO = Human and Ecological Risk Office
 HNWR = Havasu National Wildlife Refuge
 hp = horsepower
 LOAEL = lowest observed adverse effect levels
 mph = mile(s) per hour
 NCP = National Contingency Plan
 ng/kg = nanogram(s) per kilogram
 NHPA = National Historic Preservation Act
 No. = number
 NOx = nitrogen oxides
 NPDES = National Pollutant Discharge Elimination System
 NPS = National Park Service
 NRHP = National Register of Historic Places
 NTCRA = Non-Time-Critical Removal Action
 PAH = polycyclic aromatic hydrocarbon
 PG&E = Pacific Gas and Electric Company
 PHSEP = Project Health, Safety, and Environment Plan
 PM = particulate matter

RAWP = Removal Action Work Plan
 RBC = risk-based concentration
 RBRG = risk-based remedial goal
 RCRA = Resource Conservation and Recovery Act
 RFRA = Religious Freedom Restoration Act
 ROWD = Report of Waste Discharge
 RSL = regional screening level
 SEIR = Subsequent Environmental Report
 SF RWQCB = San Francisco Regional Water Quality Control Board
 SHPO = State Historic Preservation Office
 SMP = Soil Management Plan
 SWMU = solid waste management unit
 TAA = target action area
 TBC = to be considered
 TCP = Traditional Cultural Property
 TCS = Topock Compressor Station
 TEQ = toxicity equivalent
 TPH-g = total petroleum hydrocarbon-gasoline
 USACE = U.S. Army Corps of Engineers
 USFWS = U.S. Fish and Wildlife Service
 WDR = Waste Discharge Requirement

Revised Table 4-2. Summary of Compliance with Applicable Programmatic Agreement (as Amended) Stipulations

Soil Non-Time Critical Removal Action Completion Report

PG&E Topock Compressor Station, Needles, California

Item No.	Reference Location in PA Document ^{[a], [b], [c]}	Relevant Excerpt from Document	Triggering Event	Actions Taken for Compliance with This Measure
1	Stipulation I (General Principles, Rows 272-315)	<p>The Federal Agencies, in consultation with the Tribes, SHPOs, ACHP, PG&E, and other interested parties, agree to:</p> <p>A. Select and implement, or cause to be implemented, an alternative or combination of alternatives to remediate the groundwater and soil contamination in a manner that fulfills the requirements of CERCLA and the CERCLA Records of Decision (RODs) and protects the Colorado River, human populations, and the natural environment to the maximum extent practicable.</p> <p>B. Subject to I(A), carry out, and require others under their jurisdiction to carry out, all investigative, testing, and remediation activities, including all supporting operations and maintenance activities, in ways that avoid, minimize, or mitigate adverse effects to cultural and historic properties within the APE, to the maximum extent practicable.</p> <p>C. Respect Tribes' rights to express their traditional cultural values, including those associated with their religions, and their right to access Federally managed lands to conduct cultural and religious practices, as variously specified in E.O. 13007, the Religious Freedom Restoration Act (RFRA) and the American Indian Religious Freedom Act (AIRF A). Additionally, the BLM, USFWS, USBR, and PG&E shall consult with the Tribes that attach cultural significance to the TCP within the APE to develop a plan to ensure Tribal access to areas within the -APE for traditional religious, cultural, or spiritual purposes. Access shall be consistent with applicable laws, regulations, and agreements governing property within the APE and may not impede the Topock Remediation Project, may not create health and safety concerns, and shall exclude the Topock Compressor Station and related facilities.</p> <p>D. Ensure that PG&E shall, to the extent practicable, restore the areas affected by the Topock Remediation Project within the APE including, but not limited to, the site of the existing treatment plant and related facilities but excluding the Topock Compressor Station and related facilities to the conditions existing prior to the construction of the PG&E investigation and remediation related appurtenances and facilities.</p> <p>E. Consult with the other Signatories, Tribes, and Invited Signatories, following the guidelines in Appendix B of this PA, regarding actions proposed in this Undertaking, including establishment of any rights of way, time critical, or emergency actions.</p> <p>F. Recognize that the environmental setting for the Topock Maze and its relationship and association to cultural and religious sites which are outside the APE relates to the historic and cultural significance of the Topock Maze.</p> <p>G. Recognize that on-going consultation between Signatories, Invited Signatories, and the Tribes will continue outside of this PA to further address mitigation of direct, indirect, and cumulative effects of the Topock Project.</p>	<p>Agency Approval of Soil NTCRA Action Memorandum and Work Plan</p> <p>Implementation of Soil NTCRA Work Plan (Jacobs 2022)</p> <p>Restoration of Areas Affected by Soil NTCRA</p>	<p>A. This measure was fulfilled with DOI's approval of the Soil NTCRA Action Memorandum in October 2021 and the Soil NTCRA Work Plan on June 27, 2022.</p> <p>B. Refer to responses to Items 3-9 in this table and Revised Tables 4-3, Compliance with CHPMP and 4-4, Compliance with Treatment Plan for details about how NTCRA avoided impacts to cultural and historical resources.</p> <p>C. PG&E did not receive any Tribal requests to access land for collecting materials, such as plants and mineral, or for traditional, ceremonial, or other purposes during the Soil NTCRA. Tribal Monitors were provided access to monitor all ground-disturbing activities.</p> <p>D. Areas affected by Soil NTCRA excavation were stabilized and left in a safe state after completion of the excavation. Several TAAs were subsequently restored to their preconstruction conditions to the extent practicable, including:</p> <ul style="list-style-type: none"> • AOC1 TAA1 • AOC1 TAA2 • AOC1 TAA3 • AOC10 TAA3 • AOC10 TAA4 • AOC14 TAA1 • AOC16 TAA1 • AOC27 TAA1 <p>Two TAAs, AOC10 TAA2 and SWMU1 TAA1, currently overlap with future remedy infrastructure; therefore, to avoid repetitive disturbance of the land, final site restoration in these areas will be deferred until completion of the overlapping remedy infrastructure.</p> <p>Other TAAs not restored to their preconstruction conditions and the associated rationale are:</p> <ul style="list-style-type: none"> • AOC11 TAA1 was not backfilled, as it is anticipated that over time, soil from the surrounding hill side will fill up the excavation and return the site to its preconstruction condition. • AOC9 TAA1, AOC10 TAA1, and SWMU1 TAA2 were covered with riprap for much-needed erosion control of the steep hillside. In addition, for SWMU1 TAA2, the riprap also provides some protection against potential scouring of the toe of the slope in a flow event in BCW. • SWMU1 TAA3 was not backfilled due to the safety concern of potential sloughing of backfill material from the top of the slope down to BCW. <p>All Soil NTCRA support areas were restored to their preconstruction conditions to the extent practicable, including:</p> <ul style="list-style-type: none"> • Staging areas • The SPY, both lower and upper yard • The CHQ • The Transwestern Bench <p>E, F, G. PG&E defers to the federal agencies.</p>
2	Stipulation II (B) (Area of Potential Effect [APE], Rows 397-410)	<p>At each phase (work plan or design document) of implementation of the Undertaking, an evaluation will occur to determine if the APE should be amended. This evaluation will coincide with the development of the work plan or design document for the specific phase of the Undertaking. Where alternatives under consideration consist of corridors or large land areas, or where access to properties is restricted, the agency official may use a phased process to conduct identification and evaluation efforts (36 CFR §800.4(b)(2)). Prior to implementation of each phase (work plan or design document) of the Undertaking, BLM will determine, in consultation with the AZ SHPO, CA SHPO, Tribes, and PG&E, what, if any, changes are required in the APE. If BLM determines that the APE must be revised, BLM will redefine the APE taking the input from those parties into account. Should such revision to the APE be needed, BLM will amend the CHPMP to include any changes to the APE.</p>	Not applicable	PG&E did not propose any changes to the APE during the Soil NTCRA.

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		<p>Any Signatory or Invited Signatory to this PA may propose that the APE be modified. BLM shall notify all Signatories and Invited Signatories of the proposal and consult with the Tribes, PG&E, the AZ SHPO, and the CA SHPO for no more than thirty (30) days after such notification to attempt to reach agreement on the proposal according to guidance found at 36 CFR §800.4(a). If an agreement is reached, BLM will ensure that a description and map of the modification is provided to all Signatories and Invited Signatories. Agreement to amend the APE, by itself, will not require an amendment to the PA but will be subject to all other stipulations of this PA. If final agreement cannot be reached on a proposed modification to the APE, dispute resolution procedures as described in Stipulation XV will be followed.</p>		
3	<p>Stipulation IV(A) (<i>Characterizing, Remediating, and Mitigating Soil Contamination, Rows 555-568</i>)</p>	<p>At the time of the execution of this PA, soil investigations are ongoing for the Topock Compressor Station and surrounding area. The Federal Agencies shall ensure that:</p> <ol style="list-style-type: none"> 1. Consultation between the Signatories, Tribes, and Invited Signatories shall continue during development of the work plans for Soil Part A, Phase II Investigation, and Soil Part B Investigation. Should additional adverse effects be identified through consultation on future studies or work plans, the Federal Agencies will incorporate mitigation measures in the Treatment Plan included in the CHPMP as described in Stipulation VII (B) of this PA. 2. Every effort shall be made to avoid and/or minimize adverse effects to the maximum extent practicable, in accordance with the principles set forth in Stipulation I. Tribal and Archaeological Monitors shall be authorized to monitor all such related activities in accordance with Appendix C. 	<p>Implementation of the Soil NTCRA</p>	<p>The Soil NTCRA was designed to avoid impacts on historical and archaeological resources to the maximum extent feasible.</p> <p>Desktop Review</p> <p>During the development of the Work Plan, AE and PG&E Archaeologists performed a desktop review of a preliminary draft of the work area boundary to confirm there were no conflicts with locations of previously identified resources and proposed work areas. Through this review, AE concluded that all areas within the work boundary have been surveyed multiple times within the past 20 years. Most of these areas have been surveyed as recently as 2021. There is only one area, the USBR rock quarry, that has not been surveyed since 2004. For details, refer to a memorandum from AE in Appendix J.</p> <p>Review of archaeological sites within 30 meters of proposed action areas revealed that only one isolate, 36-027735, is within 30 meters of a removal action area where actual ground excavations are proposed. A closer examination revealed that this isolate is not located within an excavation footprint; rather, it is in the planned material processing and staging area in BCW.</p> <p>Field Review</p> <p>Subsequently, AE and PG&E Archaeologists participated in a field review to walk the work area and discuss details, including work boundary and means and methods to protect sensitive resources, including the isolate in BCW. Inputs were provided and used to refine the work area boundary to protect resources. The refined work area was included in the Soil NTCRA Work Plan.</p> <p>Field Implementation</p> <p>a) Before Ground-disturbing Activities – ERTC, Preconstruction Survey and Staking of the Work Area Boundary, Installation of Protection Measures, and Worker Training</p> <p>AE and PG&E Archaeologists participated in the ERTC process for the Soil NTCRA. The purpose of the ERTCs is to provide Contractors with the information necessary to comply with the protection measures and project requirements.</p> <p>Before initiating ground-disturbing activities, surveys and staking of the work area boundary occurred with participation from Tribes, Tribal Monitors, and DOI.</p> <p>In addition, PG&E conducted a mandatory WEAT for its Employees, Subcontractors, and Consultants who were involved in the soil removal action. All new field personnel are required to have this mandatory training before starting field work.</p> <p>b) During Ground-disturbing Activities – Monitoring</p> <p>Cross-trained AE and PG&E Archaeological and Paleontological Monitors observed all ground-disturbing activities during the Soil NTCRA. Archaeological Monitors have the authority to temporarily divert or stop activities if previously unidentified potentially significant cultural resources are discovered. Tribal Monitors were also invited to observe ground-disturbing activities.</p>

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4	Stipulation IV(B)(1) (<i>Characterizing, Remediating, and Mitigating Soil Contamination, Rows 576-580</i>)	As a general rule, only soils that have been contaminated by human activity are to be remediated. Response actions to address contaminated soils will be selected in compliance with the requirements of CERCLA. No soils remediation or mitigation will proceed until consultation with all Signatories and Invited Signatories has been completed in accordance with guidelines in Appendix B.	Agency Approval of Soil NTCRA Action Memorandum and Work Plan	This measure was fulfilled with DOI's approval of the Soil NTCRA Action Memorandum in October 2021 and the Soil NTCRA Work Plan on June 27, 2022.
5	Stipulation IV(B)(2) (<i>Characterizing, Remediating, and Mitigating Soil Contamination, Rows 582-583</i>)	Any and all projects to remove or otherwise remediate the contamination of soils are planned in accordance with the principles set forth in Stipulation I of this PA.	Implementation of the Soil NTCRA	This measure was implemented as directed.
6	Stipulation IV(B)(3) (<i>Characterizing, Remediating, and Mitigating Soil Contamination, Rows 585-587</i>)	Tribal and Archaeological Monitors shall be authorized to monitor all soils characterization, remediation, and mitigation activities in accordance with Appendix C.	Implementation of the Soil NTCRA	Cross-trained Archaeological and Paleontological Monitors observed all ground-disturbing activities during the Soil NTCRA. The Monitors have the authority to temporarily divert or stop any activities if previously unidentified potentially significant cultural resources are discovered. Tribal Monitors were also invited to observe ground-disturbing activities.
7	Stipulation IV(B)(4) (<i>Characterizing, Remediating, and Mitigating Soil Contamination, Rows 589-597</i>)	Because the final design of the selected remedy may differ from its conceptual design, the Federal Agencies agree to ensure that: <ul style="list-style-type: none"> • Consultation between the Signatories, Tribes, and Invited Signatories is initiated prior to final design of the selected remedy. • Every effort shall be made to avoid and minimize adverse effects to the maximum extent practicable, in accordance with the principles set forth in Stipulation I. 	Implementation of the Soil NTCRA	Refer to responses to Item 1 in this table.
8	Stipulation IV(B)(5)(a) (<i>Characterizing, Remediating, and Mitigating Soil Contamination, Rows 605-612</i>)	Whatever the selected alternative, the Federal Agencies will consult with all Signatories, Tribes, and Invited Signatories during the design activities to determine how to best restore the areas affected by the Topock Remediation Project. These areas include, but are not limited to, the site of the existing treatment plant and related facilities, but exclude the Topock Compressor Station and related facilities to ensure that environmental restoration to the conditions existing prior to the construction of the Project is planned and conducted, to the extent practicable.	Implementation of the Soil NTCRA	Refer to responses to Item 1D of this table.
9	Stipulation IV(B)(5)(b) (<i>Characterizing, Remediating, and Mitigating Soil Contamination, Rows 613-615</i>)	BLM will include the results of consultation as part of the Treatment Plan specified in the CHPMP and document specific consultation activities as part of the administrative record.	Implementation of the Soil NTCRA	PG&E defers to BLM.
10	Stipulation IX(A)-(D) (<i>Discoveries, Rows 755-806</i>)	A. If the Undertaking affects a previously unidentified cultural and/or historic resource, including human remains and/or associated funerary objects or graves, or affect such resources in a way not previously anticipated, or have greater adverse effect than previously anticipated, all work in the vicinity of the discovery shall cease. No further action will be taken until the BLM, in consultation with Tribal and Archaeological Monitors and PG&E in the field, has determined the nature of the discovery and delineated an area not to exceed 50 meters from the approximate center point of the discovery (or a smaller or larger areas if warranted by specific circumstances) in which no further work is to take place until treatment of the discovery is resolved. At such point BLM will notify all Signatories, Tribes, and Invited Signatories of the nature and general location of the discovery. The BLM will implement appropriate measures, including stabilization or covering, to protect any discovery (human remains, funerary objects, sacred objects, or objects of cultural patrimony) from further disturbance in accordance with the principles set forth in Stipulation I. Ongoing work not within 50 meters (or a smaller area if determined appropriate by parties in the field) of the discovery may continue. If human remains and/or associated funerary objects compose all or part of the discovery, then BLM shall ensure the stipulations of the POA included in the CHPMP, as described in Stipulation VII (H) hereof, will be completed. Also, if human remains and/or funerary objects are encountered, all activities shall follow the procedures and direction provided in NAGPRA and California Public Resources Code sections 5097.98 and 5097.991. For Arizona, such activities shall follow the procedures and direction provided in	Discovery of A Previously Unidentified Cultural or Historic Resource, or Unanticipated Adverse Effects Occur during Ground-disturbing Activities	This measure was implemented as directed. No discovery of a previously unidentified cultural or historic resource or unanticipated adverse effects occurred during Soil NTCRA.

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		<p>NAGPRA and applicable state laws, including the Arizona Antiquities Act of 1927 (Arizona Revised Statute [ARS] § 41- 841 to 41-846), Burial Protection Law of 1990 (ARS §41- 865), and ARS §41-844 of 1990.</p> <p>2016. The BLM, in consultation with Signatories, Invited Signatories, and Tribes, will implement appropriate measures, including stabilization or covering, to protect any discovery (human remains, funerary objects, sacred objects, or objects of cultural patrimony) from further disturbance in accordance with principles set forth in Stipulation I.</p> <p>2016. The Discovery Plan and/or Plan of Action (CHPMP, Appendices C and D) will be followed if previously unrecorded resources, human remains, or items of cultural patrimony are discovered.</p> <p>B. If the Tribes, PG&E, and BLM can resolve treatment of the discovery in a manner that does not cause adverse effects to significant cultural and historic properties, BLM shall document the resolution, the activities within the work area may proceed and the AZ SHPO and the CA SHPO shall be notified of the discovery and resolution. The Tribes, PG&E, and BLM will use their best efforts to resolve treatment as quickly as possible.</p> <p>C. If there is failure to resolve treatment of the discovery in consultation with the Tribes and PG&E, BLM shall then consult with the AZ SHPO or the CA SHPO to develop a treatment plan that takes into account the effects of the Undertaking on the discovery. Within fifteen (15) days of notification of discovery, BLM shall provide the consulted SHPO(s), via email, a recommendation for resolving the discovery situation that takes into account the potential effects of the Undertaking on the discovery.</p> <p>D. If the CA SHPO or AZ SHPO (as appropriate, depending on the location of the discovery) does not object to BLM's recommendation(s) within fifteen (15) days, BLM will implement the recommendation(s). If the consulted SHPO objects to the recommendation, BLM will utilize the dispute resolution process in Stipulation XV of this PA to resolve any objection.</p>		
11	Appendix C Monitoring Protocol	<p>Prior to execution of the PA for the Undertaking, PG&E sometimes invited the Tribes to be present on site during construction to monitor and observe non-maintenance grading, trenching, or other excavation for any facilities, new roads, or other project components related to the Undertaking which may have had the potential to adversely impact cultural and historic resources. The Tribal and Archaeological Monitors shall both be invited to monitor such field work.</p>	Implementation of Ground-disturbing Activities in Support of the Soil NTCRA	Cross-trained AE and PG&E Archaeological and Paleontological Monitors observed all ground-disturbing activities. The Monitors had the authority to temporarily divert or stop any activities if previously unidentified potentially significant cultural resources are discovered. Tribal Monitors were invited to observe ground-disturbing activities.
12	Appendix C Monitoring Protocol	<p>This Protocol specifies ways in which the Tribes, BLM, and PG&E may ensure that:</p> <ol style="list-style-type: none"> 1. Tribes, BLM, and PG&E, each are kept well informed of Undertaking activities and outcomes; 2. Tribal and Archaeological Monitors have the opportunity to alert PG&E's site supervisor (or designee) to potentially sensitive areas or issues that Monitors may be aware of or may become aware of while fieldwork is in progress; 3. PG&E's site supervisor (or designee) notifies BLM of potentially complicated situations. These situations may include discovery of a new cultural or historical resource, damage to a previously recorded cultural or historical resource, or unanticipated effects identified; 4. Tribal concerns regarding work activities are addressed while fieldwork is in progress. 	Implementation of Ground-disturbing Activities in Support of the Soil NTCRA	This measure was implemented as directed.
13	Appendix C Monitoring Protocol (Discoveries)	<p>If the Undertaking will affect previously unidentified resources, or affect a previously recorded cultural or historical resource in a way not previously anticipated, or have greater or different effects than previously anticipated, all work having potential for adverse effect shall cease within a fifty (50)-meter radius (or a smaller or larger area if determined appropriate by the BLM, the Monitors, and PG&E in the field) of the point of discovery. The Archaeological and Tribal Monitors will work with BLM and PG&E to ensure that the PA requirements of Stipulation VII (CHPMP) and Stipulation IX (Discoveries) are met.</p> <p>The archaeological and tribal monitors will comply with the PA requirements of Stipulation IX (Discoveries). Protocols to be followed are found in the Discovery Plan (Appendix C of the CHPMP).</p>	Discovery of A Previously Unidentified Cultural or Historic Resource, or Unanticipated Adverse Effects Occur during Ground-disturbing Activities	This measure was implemented as directed. No discovery of a previously unidentified cultural or historic resource or unanticipated adverse effects occurred during the Soil NTCRA.

Item No.	Reference Location in PA Document ^{[a], [b], [c]}	Relevant Excerpt from Document	Triggering Event	Actions Taken for Compliance with This Measure
14	Appendix C Monitoring Protocol (Human Remains)	If the Undertaking affects previously unidentified human remains and/or associated funerary objects or graves, or affects such resources in a way not previously anticipated, or has greater adverse effect than previously anticipated, all work in the vicinity of the discovery shall cease. No further action will be taken until the BLM, in consultation with Tribal and Archeological Monitors and PG&E in the field, has determined the nature of the discovery and delineated an area not to exceed 50 meters from the approximate center point of the discovery (or a smaller or larger area if warranted) in which no further work is to take place until treatment of the discovery is resolved.	Discovery of Previously Unidentified Human Remains or Associated Funerary Objects or Graves, or Unanticipated Adverse Effects Occur during Ground-disturbing Activities	This measure was implemented as directed. No discovery of a previously unidentified cultural or historic resource or unanticipated adverse effects occurred during the Soil NTCRA.
15	Appendix C Monitoring Protocol (Monitoring and Reporting Requirements)	<p>Monitors shall check-in and out with the designated site supervisor and/or PG&E's site manager (or designee) each day. Each monitor shall complete a Daily Monitoring Log detailing monitoring activities. This log will provide the Tribe, BLM, and PG&E with details on the activities that took place during each day, any concerns or issues, and how those concerns or issues were resolved.</p> <p>The Daily Monitoring Log must be completed and signed by the monitor and the designated site supervisor and/or PG&E's onsite project manager (or designee), both, at the end of each day. PG&E will also provide copies of the Daily Monitoring Log to the BLM Topock Project Manager. This Log will provide details on the activities that took place during each day, any concerns or issues, and how those concerns or issues were resolved. In the event that the designated site supervisor and/or PG&E's onsite project manager is not available to sign the log at the end of the day, the monitor will acquire their signature(s) the next time they meet. The Daily Monitoring Log will be the property of PG&E; and the company shall fax or email a copy to the Tribe, upon request. The Tribal and Archeological Monitors may also maintain additional monitoring notes and photos, which will be the property of the Tribes and BLM, respectively.</p> <p>Tribal Monitors will sign in with PG&E's designated site supervisor or onsite project manager (or designee) at the beginning of each workday or upon arrival. PG&E will maintain logs reflecting the names and tribal affiliation of all monitors who report to work. The use of Daily Monitoring Logs by Tribal Monitors is encouraged although each tribe is responsible for establishing reporting requirements for its monitors. All Daily Monitoring Logs submitted to PG&E shall be retained.</p>	Implementation of Ground-disturbing Activities in Support of the Soil NTCRA	<p>AE's cross-trained Archaeological and Paleontological Monitors checked in with the PG&E's Site Manager each day during the morning meeting to discuss the daily monitoring activities and areas. AE Monitors completed Daily Monitoring Logs that documented where they worked throughout the day, and documented other information, as follows:</p> <ul style="list-style-type: none"> • Geographic setting of this work • Proximity to known archaeological resources • Specific activities they monitored • Any archaeological discoveries • How they were addressed <p>Photographs of the construction activities were taken throughout the day and included in the Daily Monitoring Log. Daily Monitoring Logs were compiled into weekly summaries, which were compiled into monthly statistics on hours worked relative to safety incidents and observations. The monthly reports were used to create the quarterly compliance reports.</p>
16	Appendix C Monitoring Protocol (Safety)	Tribal and Archeological Monitors will be required to meet with PG&E's site supervisor prior to initiating monitoring activity and will be required to obtain any applicable training required under 29 CFR 1910.120 and 40 CFR 300.150. The PG&E site supervisor will identify the safety and logistical guidelines that are appropriate for the monitoring activity. Tribal and Archeological Monitors are invited to attend the safety meetings at the start of each workday or new work task. If the Monitors do not attend this meeting, they will be instructed about the safety concerns of the day by a PG&E representative. Tribal and Archeological Monitors will be expected to wear all personal protective equipment specified by PG&E's site supervisor and required of other similarly situated field workers. Tribal and Archeological Monitors will be expected to actively participate to enhance the safety of themselves and the other workers onsite by communicating with PG&E's site supervisor if any safety concerns are identified. Due to safety considerations at the Project site, Tribal and Archeological Monitors will also be prohibited from conducting any monitoring within designated construction exclusion zones, unless otherwise authorized by PG&E. Such zones are to be clearly delineated to the Tribal and Archeological Monitors by PG&E's site supervisor. In these situations, other efforts to provide alternative methods for accommodating Monitors including, but not limited to, high-powered binoculars, spotting scopes, or other vision enhancement tools or alternative viewing platforms will occur.	Implementation of Ground-disturbing Activities in Support of the Soil NTCRA	<p>PHESP</p> <p>Before Soil NTCRA monitoring, AE prepared and submitted a PHESP to PG&E for their review and approval. The PHESP identified all forms of work that AE would undertake onsite, including:</p> <ul style="list-style-type: none"> • Conducting supplemental pedestrian surveys • Evaluating new discoveries • Performing annual site conditions assessments • Monitoring <p>For each of these work activities, the PHESP identified the associated risk according to PG&E's risk criteria and identified the safety measures that would be implemented to protect the Archaeological Monitors. PG&E identified areas of concern in the Project Area and APE, where known soil contamination was present; and only persons with 40-hour HAZWOPER training were allowed to work in these areas.</p> <p>Daily Safety and Trainings</p> <p>AE's cross-trained Archaeological and Paleontological Monitors and Tribal Monitors checked into and out of the project daily by signing in during the morning onsite safety meeting and signing out at the end of the day. In addition, AE's Monitors participated in online PG&E safety trainings, as required. AE's cross-trained Archaeological and Paleontological Monitors and Tribal Monitors wore all necessary personal protective equipment required for Soil NTCRA monitoring.</p>

Sources: Jacobs. 2022. *Work Plan for Soil Non-Time Critical Removal Action, Pacific Gas and Electric Company Topock Compressor Station, Needles, California*. June 17.

^[a] U.S. Bureau of Land Management (BLM). 2010, 2017. *Programmatic Agreement among the Bureau of Land Management, Arizona Historic Preservation Officer, California State Historic Preservation Officer, and the Advisory Council on Historic Preservation for the Topock Remediation Project in San Bernardino County, California and Mohave County, Arizona*. October 4, 2010. Amended April 18, 2017.

^[b] Stipulations III, Remediating Groundwater Contamination, and V, Removal of Existing Treatment Plants and Other Remediation Facilities, are related to the selection and implementation of the groundwater remedy, unrelated to the Soil NTCRA; therefore, they are not included in this table.

^[c] The following stipulations are related to the governance and administration of the PA. For brevity, these stipulations are not included in this table:

- IV, Interim Measures for Implementation of the Undertaking

- VII, CHPMP
- VIII, Identification of National Register of Historic Places Properties
- X, Administrative Stipulations
- XI, Standards
- XII, Confidentiality
- XIII, Curation
- XIV, Amendments to the Agreement
- XV, Dispute Resolution
- XVI, Termination
- XVII, Annual Report and Evaluation
- XVIII, Appendices
- XIX, Duration of this Agreement
- XX, Effective Date
- XXI, Signatures

AE = Applied Earthworks

AOC = area of concern

APE = area of potential effects

ARS = Arizona Revised Statute

BCW = Bat Cave Wash

BLM = U.S. Bureau of Land Management

CHPMP = Cultural and Historic Property Management Plan

CHQ = Construction Headquarters

DOI = U.S. Department of the Interior

ERTC = Environmental Release to Construct

HAZWOPER = Hazardous Waste Operations and Emergency Response

NTCRA = Non-Time-Critical Removal Action

PA = Programmatic Agreement

PG&E = Pacific Gas and Electric Company

PHSEP = Project Health, Safety, and Environment Plan

ROD = Record of Decision

SPY = Soil Processing Yard

SWMU = solid waste management unit

TAA = target action area

USBR = U.S. Bureau of Reclamation

WEAT = Worker Environmental Awareness Training

Revised Table 4-3. Summary of Compliance with Applicable Cultural and Historic Property Management Plan Provisions

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1	Section 6.2	<p>Measures and principles to avoid, minimize, or resolve adverse effects include the following:</p> <ul style="list-style-type: none"> Existing facilities shall be used to the maximum extent practicable. The need for and placement of any new facilities or activities will be determined in consultation with the Tribes and the Consulting Parties following the Guidelines in Appendix B. New facilities or activities will be placed in areas already disturbed by previous grading and other mechanized activities to the extent practicable, consistent with human health and the environment and achieving cleanup in a timely manner. The performance of all field activities in support of the NTCRA shall be executed in such a way as to avoid and/or minimize adverse effects to cultural and historic properties to the maximum extent practicable. Subject to PA Stipulation I(A) above, direct, indirect and cumulative impacts shall be considered and mitigated. 	Implementation of Field Activities in Support of the Soil NTCRA	<p>With regard to the first three bullets, PG&E used existing facilities, including access routes, where practicable. With respect to the last two bullets, refer to responses to Revised Table 4-2, Item 1.</p>
2	Section 6.3	"Environmental Restoration" refers to the restoration obligations in the Programmatic Agreement and the Consent Decree.	Restoration of Areas Affected by the Soil NTCRA	Refer to response to Revised Table 4-2, Item 8.
3	Section 6.6.3	<p>"Avoidance Measures/Management Thresholds" provides that:</p> <p>"The primary means for achieving avoidance will be through careful planning and placement of project facilities and installation of temporary barrier fences around significant cultural and historic properties. Metal fence posts and orange mesh all- weather fabric will be used, unless other appropriate materials are identified as preferable, for temporary fencing and will be regularly inspected and maintained. Permanent post-and double cable fencing may be required in high traffic areas. An archaeologist and/or Tribal representative(s) will clearly delineate the sensitive areas to be avoided by construction and supervise fence installation. Project personnel will be notified that fenced locations are to be completely avoided."</p>	Implementation of Field Activities in Support of the Soil NTCRA	<p>The Soil NTCRA was designed to avoid, minimize, or mitigate impacts on historical and archaeological resources to the maximum extent feasible.</p> <p>Desktop Review</p> <p>During the development of the Work Plan, AE and PG&E Archaeologists performed a desktop review of a preliminary draft of the work area boundary to confirm there were no major conflicts with locations of previously identified resources. Through this review, AE concluded that all areas within the work boundary have been surveyed multiple times within the past 20 years. Most of these areas have been surveyed as recently as 2021. There is only one area, the USBR rock quarry, that has not been surveyed since 2004. For details, refer to a memorandum from AE in Appendix J.</p> <p>Review of archaeological sites within 30 meters of proposed action areas revealed that only one isolate, 36-027735, is within 30 meters of a removal action area where actual ground excavations are proposed. A closer examination revealed that this isolate is not located within an excavation footprint; rather, it is in the planned material processing and staging area in BCW.</p> <p>Field Review</p> <p>Subsequently, AE and PG&E Archaeologists participated in a field review to walk the work area and discuss details, including work boundary and means and methods to protect sensitive resources, including the isolate in BCW. Inputs were provided and used to refine the work area boundary to protect resources. The refined work area was included in the Soil NTCRA Work Plan.</p> <p>Field Implementation</p> <p>a) <u>Before Ground-disturbing Activities – ERTC, Preconstruction Survey and Staking of the Work Area Boundary, Installation of Protection Measures, and Worker Training</u></p> <p>AE and PG&E Archaeologists participated in the ERTC process for the Soil NTCRA. The purpose of the ERTCs is to provide Contractors with the information necessary to comply with the protection measures and project requirements.</p> <p>Before initiating ground-disturbing activities, surveys and staking of the work area boundary occurred with participation from Tribes, Tribal Monitors, and DOI.</p>

Item No.	Reference Location in CHPMP Document ^{[a], [b]}	Relevant Excerpt from Document	Triggering Event	Actions Taken for Compliance With This Measure
				<p>In addition, PG&E conducted a mandatory WEAT for its Employees, Subcontractors, and Consultants who were involved in the soil removal action. All new field personnel are required to have this mandatory training before starting field work.</p> <p>b) <u>During Ground-disturbing Activities – Monitoring</u> Cross-trained AE and PG&E Archaeological and Paleontological Monitors observed all ground-disturbing activities during the Soil NTCRA. The Monitors have the authority to temporarily divert or stop any activities if previously unidentified potentially significant cultural resources are discovered. Tribal Monitors were also invited to observe ground-disturbing activities.</p>
4	Section 6.6.4	<p>Construction Monitoring Monitoring of all earth-disturbing Project activities will be in accordance with Appendix C of the PA (Tribal and Archaeological Monitoring Protocol). Qualified archaeological and Tribal monitors will be notified in advance and invited to be on site during earth- disturbing construction activities (grading, trenching, boring, drilling, or other excavation). Due to safety considerations at the Project site, Tribal and Archaeological Monitors will comply with all safety requirements.</p>	Implementation of Field Activities in Support of the Soil NTCRA	This measure was implemented as directed.
5	Section 6.6.5	<p>Periodic Site Monitoring Sound management of the archaeological and historical properties requires that any progressive degradation of sites be identified. Additionally, it is recognized that a mechanism is needed to identify any accidental damage that may occur. To accomplish these goals, PG&E will develop a proposal describing a program of periodic site monitoring and condition assessment. BLM, following consultation with the Tribes and other appropriate parties, will approve any monitoring program before implementation by PG&E. The program will include all historic properties within the APE. Any previously unknown properties that may be encountered during the Project also will be included in the monitoring program unless such properties are evaluated as ineligible. During its initial phase, periodic monitoring and condition assessment will consist of annual field visits to monitor site conditions and disturbances</p>	Annual Site Condition Assessment	The 2024 annual site condition assessment is scheduled for October 2, 3, and 4, 2024, to monitor site conditions and disturbances pursuant to this measure.
6	Section 6.8	"Protocols for Tribal and Archaeological Monitoring" states that monitoring for the Project will be performed in accordance with the PA's Appendix C (Tribal and Archaeological Monitoring Protocol).	Implementation of Field Activities in Support of the Soil NTCRA	This measure was implemented as directed.
7	Section 6.9	If the Undertaking extends beyond the APE, BLM will determine, in consultation with the PA Signatories, Tribes, and Invited Signatories, what (if any) changes are required in the APE. If BLM determines that the APE must be revised, BLM will redefine the APE, taking into account the advice of the other Consulting Parties. Should such revision to the APE be needed, BLM will amend the CHPMP to include any changes to the APE (BLM et al. 2010:8).	Identification of a Need to Revise the APE	The Soil NTCRA did not occur beyond the APE; therefore, this measure does not apply.
8	Section 7.1	<p>a) Physical avoidance of the Topock Maze and associated prehistoric sites.</p> <p>b) To the maximum extent practicable, PG&E will avoid all archaeological sites within the APE and protect all historic properties regardless of their National Register of Historic Places status. The primary means for accomplishing avoidance will be through careful planning and placement of proposed access routes and drilling sites and by the installation of barrier fences around significant historic properties. A pre- project archaeological survey field verification will be conducted prior to any ground-disturbing activities. Consistent with other phases of work conducted at the Topock Remediation Project site, agency representatives and other stakeholders (including representatives of Native American Indian Tribes involved with the Project) will be invited to the site for a project initiation meeting to discuss various cultural sensitivities associated with the Project.</p> <p>c) Ensure that PG&E shall, to the extent practicable, restore the areas affected by the Topock Remediation Project within the APE, including but not limited to the site of the existing treatment plant and related facilities but excluding the Topock Compressor Station and related facilities, to the conditions existing prior to the construction of the PG&E investigation and remediation related appurtenances and facilities per PA Stipulation I.D.</p>	Implementation of Field Activities in Support of the Soil NTCRA	<ul style="list-style-type: none"> • For Items a and b, please refer to Item 3 of this table. • For Item c, please refer to Revised Table 4-2 Item 1D. • For Item d, PG&E and DOI coordinated with Tribes on impacts to culturally significant native plant species during the Soil NTCRA. The following are examples of coordination with Tribes: <ol style="list-style-type: none"> 1. Before the start of ground disturbance, PG&E coordinated preconstruction field verifications with agencies and Tribes to stake the TAA and work area boundaries. Impacts to vegetation were discussed during the field verifications. 2. PG&E discussed work to be performed, including impacts to vegetation, during the daily morning meetings with Agency Representatives and Tribal Monitors. 3. PG&E inventoried the removal of honey mesquite, palo verde, and cat-claw acacia plants during the Soil NTCRA and are currently coordinating with federal agencies and Tribes to replace these plants. 4. DOI consulted with the Tribes on the removal of the mesquite trees at AOC10 TAA2, middle of East Ravine. 5. DOI consulted with the Tribes on the protection of the mesquite trees at AOC10 TAA4, near the entrance to East Ravine. • For Item e, the Soil NTCRA does not involve monitoring wells; therefore, Item e does not apply.

Item No.	Reference Location in CHPMP Document ^{[a], [b]}	Relevant Excerpt from Document	Triggering Event	Actions Taken for Compliance With This Measure
		<p>d) Remediation activities that propose the removal or introduction of vegetation on public lands shall be undertaken after coordination with Tribes to assess if culturally significant native plant species are being impacted and if there could be potential visual impacts to the Topock Traditional Cultural Property (TCP).</p> <p>e) Existing monitoring wells and related facilities shall be used to the extent practicable per PA Stipulation III.B.2(a).</p> <p>f) The need for and placement of any new facilities or activities will be determined in consultation with the Tribes and the Consulting Parties following the Guidelines in Appendix B and per PA Stipulation III.B.2(b).</p> <p>g) New facilities or activities will be placed in areas already disturbed by previous grading and other mechanized activities to the extent practicable, consistent with human health and the environment and achieving cleanup in a timely manner per PA Stipulation III.B.2(c).</p> <p>h) Clay deposits are an important resource identified by the Hualapai in their creation, and may be important as well to other Tribes. Accordingly, BLM, PG&E, and those Tribes that ascribe importance to clay deposits shall meet to identify the clay deposits that are considered a resource and develop a protocol to be followed if such clay deposits are encountered.</p>		<ul style="list-style-type: none"> • Items f and g were fulfilled with DOI's approval of the Soil NTCRA Work Plan on June 27, 2022. • Item h, clay deposits, as defined in the clay handling protocols, were not encountered during Soil NTCRA. Therefore, Item h was not triggered.
9	Section 7.2	<p>Accommodation of Tribal Activities and Ceremonies Involving the Topock Maze/TCP</p> <p>The BLM will continue to work with the Tribes to identify Tribal activities and ceremonies that are associated with the Topock TCP. When such activities and ceremonies are identified, BLM will consult with the Tribes and PG&E to develop treatment measures to accommodate them. Treatment measures may address scheduling of Undertaking work to accommodate ceremonial activities and to mitigate audible and visual impacts.</p>	Request to Accommodate Tribal Activities and Ceremonies	During the Soil NTCRA, PG&E did not receive request from Tribes to accommodate Tribal activities and ceremonies.
10	Section 7.3	<p>Treatment of other cultural, historical, and archaeological properties within the APE</p> <p>"The only properties identified within the APE that are not contributing properties to the Topock TCP are the properties from the historic period (i.e., Route 66, the AT&SF Railroad Grade, and National Old Trails Road). None of these properties has been impacted, to date, by this Undertaking. These properties shall be avoided, to the extent practicable, in the implementation of the Undertaking. These properties are periodically monitored for condition assessment to assure that they are being protected."</p>	Implementation of Field Activities in Support of the Soil NTCRA	This measure was implemented as directed.
11	Section 8.1	Discoveries - Steps to be taken if previously unrecorded properties are found	Discovery of a Previously Unidentified Cultural or Historic Resource, or Unanticipated Adverse Effects Occur during Ground-disturbing Activities	Refer to response to Revised Table 4-2, Item 10.
12	Section 8.2	Discoveries - Treatment of any human remains, funerary objections, ceremonial objects and items of cultural patrimony	Discovery of Associated Funerary Objects or Graves during Ground-disturbing Activities	No human remains, associated funerary objects, or graves were discovered during the Soil NTCRA.
13	Section 8.3	<p>Consultation Procedures Related to Unanticipated Discoveries</p> <ul style="list-style-type: none"> • The BLM will notify all Signatories of the PA, Tribes and Invited Signatories of the nature and general location of any discovery. If the Tribes, PG&E and BLM can resolve treatment of the discovery in a manner that does not cause adverse effects to significant cultural and historic properties, BLM shall document the resolution, the activities within the work area may proceed and the AZ SHPO and the CA SHPO shall be notified of the discovery and resolution. The Tribes, PG&E and BLM will use their best efforts to resolve treatment as quickly as possible. • If there is failure to resolve treatment of the discovery in consultation with the Tribes and PG&E, BLM shall then consult with the AZ SHPO or the CA SHPO to develop a treatment plan that takes into account the 	Discovery of a Previously Unidentified Cultural or Historic Resource, or Unanticipated Adverse Effects Occur during Ground-disturbing Activities	This measure was implemented as directed. No discovery of previously unidentified cultural or historic resources, or unanticipated adverse effects occurred during Soil NTCRA.

Item No.	Reference Location in CHPMP Document ^{[a], [b]}	Relevant Excerpt from Document	Triggering Event	Actions Taken for Compliance With This Measure
		effects of the Undertaking on the discovery. Within fifteen (15) days of notification of discovery, BLM shall provide the consulted SHPO(s), via email, a recommendation for resolving the discovery situation that takes into account the potential effects of the Undertaking on the discovery. If the CA SHPO or AZ SHPO (as appropriate, depending on the location of the discovery) does not object to BLM's recommendation(s) within fifteen (15) days, BLM will implement the recommendation(s). If the consulted SHPO objects to the recommendation, BLM will utilize the dispute resolution process in Stipulation XV of the PA to resolve any objection.		

^[a] U.S. Bureau of Land Management (BLM). 2012. *Cultural and Historic Properties Management Plan, PG&E Topock Compressor Station, Needles, California*. January 20.

^[b] Section 6.2.3 is related to the decommissioning, removal, and restoration of the IM-3 facility and removal of groundwater remediation facilities that are unrelated to the Soil NTCRA; therefore, it is not included in this table.

AT&SF = Atchison, Topeka, and Santa Fe Railway

AE = Applied Earthworks

AOC = area of concern

APE = area of potential effects

BCW = Bat Cave Wash

DOI = U.S. Department of the Interior

ERTC = Environmental Release to Construct

NTCRA = Non-Time-Critical Removal Action

PG&E = Pacific Gas and Electric Company

TAA = target action area

USBR = U.S. Bureau of Reclamation

WEAT = Worker Environmental Awareness Training

Revised Table 4-4. Summary of Compliance with the Cultural and Historical Property Treatment Plan

Soil Non-Time Critical Removal Action Completion Report

PG&E Topock Compressor Station, Needles, California

CHPTP ^[a] Section	Requirements	Actions Taken for Compliance With This Measure
4.2.1	PG&E and its archaeological subcontractor will add the Tribes' cultural perspectives to site documentation through the use of a site form Continuation Sheet or other means. Section 13 of Form 523A (Primary Form) will reference the Continuation Form if available (BLM request). PG&E will also review and update all site forms not updated in the past 10 years and add Tribal perspective continuation sheets. Updates will be conducted in conjunction with annual monitoring or other monitoring events.	This measure was implemented as directed.
4.2.1	In consultation with the Tribes, revisions to the Annual Monitoring and Site Condition Assessments strategy will be assessed, such as reviewing access routes to particular sites to reduce possible site disturbance and perhaps the removal of some sites from the monitoring target list based on concerns, including worker safety, legal access, and potential harm to sites form monitoring-associated foot traffic.	The 2024 annual site condition assessment has been scheduled for October 2, 3, and 4, 2024, to monitor site conditions and disturbances pursuant to this measure.
4.2.1	PG&E will protect trail segment CA-SBR-29943 near Maze Locus A and monitoring well MW-15 by implementing specific measures to protect the trail from being physically impacted by well monitoring activities. Methods will entail physically preventing sampling hoses from touching the ground surface within 20 feet of either side of the trail (if sawhorses or similar equipment is used, it will be weighed down to function properly, such as weighing down the sawhorses or similar equipment with sandbags so they do not tip over). In addition, BLM suggests erecting a post-and-cable fence on top of the mesa to block unauthorized access to the sensitive area and MW-15 from that direction. PG&E will access the monitoring well by way of an existing defined vehicle path.	This measure does not apply to the Soil NTCRA.
4.2.1	PG&E will establish an Informational Outreach Trailer at Moabi Regional Park during the construction phase of the project to explain to visitors the nature of the project and the cultural sensitivity of the area, as deemed appropriate in coordination with Tribal representatives. PG&E will solicit input on design of a multiple panel, high-quality information kiosk from representatives from federal agencies, Tribes, and other interested parties, such as the California Historic Route 66 Association. Information panels will provide relevant information (e.g., Topock Maze and its meaning to Colorado River Indian Tribes) aimed at educating the public and stressing respect for the area's prehistoric and spiritual resources. Signage may include information on local history and natural resources of the Colorado River. Signage and infrastructure will compliment and be compatible with a proposed Route 66 kiosk and other agency requirements. PG&E will be responsible for long-term care and maintenance of the kiosk and replacement of panels as necessary due to extreme climate (i.e., usually every 5 years).	This measure was implemented during the Soil NTCRA. The SPY trailer served as the Visitor management location during the Soil NTCRA, where daily morning meetings were held with Tribal Monitors, agencies, and Visitors.
4.2.2.1	<p>PG&E will minimize impacts to NOTH and Route 66 to the greatest extent practicable through careful placement of liquid conveyance pipeline trenches and drill locations, and limiting access of construction vehicles and equipment along road segments that retain historical integrity. To accomplish this goal, the following measures will be applied to all segments with integrity that may be affected by the project:</p> <ul style="list-style-type: none"> a. A Qualified Cultural Resource Consultant will inspect each location of proposed project activity once identifiably marked on the ground prior to commencement of construction so that road segments and associated features are avoided to the greatest extent feasible. b. PG&E will minimize visual intrusions through methods consistent with Final SEIR Mitigation Measure AES-1 (DTSC 2018), including minimizing impacts to mature plant specimens and use of matte paints in muted, earth-tone colors for aboveground and exterior project elements, that are consistent with the surrounding color palette. c. To prevent damage to the fabric of the roadways, portions of the roads may be closed to construction use, or other protective measures (e.g., dirt or gravel covering, metal or wood protective plates) may be placed over the existing road surfaces where they are needed for construction work. The road will remain covered with protective materials until all construction activities are completed, including IM-3 decommissioning. d. A Qualified Cultural Resource Consultant will monitor grading, trenching, installation of extraction or injection wells, pipelines, access roads, and other transportation facilities, or other ground-disturbing activities during construction. The purpose of the monitoring will be to confirm that construction does not inadvertently damage the integrity of NOTH and Route 66 roadway segments and associated features beyond what is anticipated. The Qualified Cultural Resource Consultant will work as part of the construction crew, will participate in all daily construction meetings, and will advise the project manager and construction site superintendent regarding impact avoidance and other historic resource issues. The Qualified Cultural Resource Consultant will have the authority to halt construction if unanticipated disturbances to significant road segments are observed. e. Upon completion of the groundwater remediation process, the historical setting will be restored to the extent practicable. f. All planned or inadvertent disturbances to erosion control structures or other road-related features of historical significance will be restored following completion of the work to the extent practicable. g. Establish selected photo points (with GPS coordinates) along those portions of the road segments that will be impacted to aid in restoration following the Soil NTCRA. h. Temporary barrier fences will be installed around work locations to aid in avoidance of inadvertent disturbance of the road features away from the immediate location of planned construction activity. Metal fence posts and orange mesh all-weather fabric will be used for temporary fencing unless other appropriate materials are identified as preferable, and will be regularly inspected and maintained. Permanent post and double-cable fencing may be required in sustained traffic areas. Project personnel will be notified that project activity is to not extend beyond the established barriers. 	The Soil NTCRA only used NOTH and Route 66 as established access routes. Therefore, this measure does not apply.

CHPTP [a] Section	Requirements	Actions Taken for Compliance With This Measure
	<p>i. As specified, during construction of the project, PG&E will establish the Informational Outreach Trailer at Moabi Regional Park. This temporary visitor center in a modular building will provide visitors with information about the nature of the project and the cultural sensitivity of the area, as deemed appropriate in coordination with Tribal representatives.</p>	
4.2.2.2(A)	<p>PG&E will minimize impacts to individual segments of NOTH and Route 66 that will be affected by the project through the application of the following segment-specific measures:</p>	<p>The Soil NTCRA only used NOTH and Route 66 as established access routes. There was no improvement to any segments as part of the Soil NTCRA. Therefore, this measure does not apply.</p>
4.2.2.2(A)	<p>Segment A: PG&E will perform a detailed condition assessment and develop a plan that will guide careful restoration of the existing circa-1935 Route 66 Welcome sign near the western terminus of Segment A, including such components as the terra cotta tiles on top of the sign. Restoration of the sign will be consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties and Guidelines for Restoration. As lead agency, the BLM will seek plan approval from the HNWR, the land managing agency. Prior to construction to provide guidance for any needed restoration, PG&E also will complete HAER Level II documentation following NPS standards of the affected portions of the Segment A roadbed and associated character-defining features, such as the guardrail.</p>	<p>The Soil NTCRA did not involve Segment A.</p>
4.2.2.2(J)	<p>Segment J: To remedy the adverse effect on the Segment J roadway resulting from trenching to bury the liquid conveyance pipelines and conduits along the northern shoulder of Route 66, the disturbed surface area will be compacted and restored after placement of the pipe using materials that blend with the adjoining areas to the extent feasible. In addition, well sites will be similarly restored when the wells are removed at the conclusion of remediation efforts. To protect remaining undisturbed roadway surfaces, use of this segment by construction vehicles and equipment will be limited to the extent feasible. Prior to construction to provide guidance for any needed restoration, PG&E will complete HAER Level II documentation following NPS standards for the affected portions of the Segment J roadbed noted and the following associated character-defining features. Two small historic-era refuse scatters (Features 37 and 38), one cement highway marker (Feature 20), a wooden culvert (Feature 35), and a rock gutter (Feature 33) associated with Segment J also may be adversely affected by the project. The rock gutter is a long, linear feature made of flat stone slabs set in cement; it lines the roadway edge on some slopes to control erosion by channeling runoff away from the road. These features will be avoided and protected to the greatest extent feasible, but the precise nature and extent of effects cannot be determined until the field inspection is conducted immediately prior to construction. If the preconstruction field inspection determines that these features will be affected, PG&E will perform additional documentation of the rock and wooden culverts and historic highway marker prior to construction using appropriate recording procedures determined in consultation among the BLM, California State Historic Preservation Officer, and DTSC. Also, prior video recordings of Segment J should be used to produce a DVD of the road segment and its associated features. Additionally, if the highway marker (Feature 20) cannot be avoided and protected during construction, PG&E will remove the object prior to disturbance and determine its disposition in consultation with BLM and DTSC. Options for disposition may include replacement at its original location following project completion, placement in an alternative location to be determined, or use as part of an interpretative display. The refuse scatters (Features 37 and 38) represent discrete roadside dumping episodes. Each feature was recorded thoroughly during the previous field surveys; nonetheless, each will be revisited prior to construction to collect additional information not captured during the prior documentation to confirm the archaeological data potential of these features has been thoroughly captured.</p>	<p>The Soil NTCRA only used Segment J as part of an established access route. There was no improvement to this segment as part of the Soil NTCRA. Therefore, this measure does not apply.</p>
4.2.2.2(L)	<p>Segment L: To remedy the adverse effect on the short stretch of Segment L where the liquid conveyance pipeline and conduits will be buried and two wells (MW-1 and IRL-2) will be installed, disturbed areas will be restored and compacted using materials that blend with the adjoining roadway material to the extent feasible. Prior to commencement of construction activities, photo documentation will both capture the character-defining features of the roadway and provide guidance for restoration. To protect remaining undisturbed roadway surfaces, use of this segment by construction vehicles and equipment will be limited to the extent feasible. Prior to construction to provide guidance for needed restoration, PG&E will complete HAER Level II documentation following NPS standards for the affected portions of the Segment L roadbed and the associated character-defining features.</p>	<p>The Soil NTCRA did not involve Segment L. Therefore, this measure does not apply.</p>
4.2.2.2(X)	<p>Segment X: PG&E anticipates installing approximately 35 wells along a 2,000-foot-long section of the eastern portion of Segment X and the underlying railway bed (CA-SBR-6693H). In addition, a liquid conveyance pipeline and conduits will be buried along the eastern shoulder of Route 66 and the railway bed. To prevent Soil NTCRA adverse effects on these features, PG&E will document any newly exposed road or railway historic materials identified during monitoring. Additionally, the trench along the eastern shoulder of Route 66 and railway bed will be compacted. For two buried pipeline trenches intersecting the roadway, Route 66 will be repaved to County standards. For the proposed well locations along the eastern side of the roadway at the road surface level, the disturbed surface will be restored using local materials to blend with the surrounding landscape to the extent feasible. For the numerous wells within the road or rail substructure itself, Route 66 will be repaved to County standards, as will the two pipeline crossings. Off-road access will be limited to the extent feasible for construction vehicles and equipment along this segment.</p>	<p>The Soil NTCRA only used Segment X as part of an established access route. There was no improvement to this segment as part of the Soil NTCRA. Therefore, this measure does not apply.</p>
4.2.2.2(Y)	<p>Segment Y: To remedy project impacts on Segment Y, the pipeline trench along the western shoulder of Route 66 will be compacted, and the portion of the pipeline trench under the railroad undercrossing and within Route 66 will be repaved to County standards.</p>	<p>The Soil NTCRA did not involve work in Arizona; therefore, this measure does not apply.</p>
4.3	<p>Periodic site monitoring and condition assessments are a critically important treatment measure to confirm known archaeological and historical sites within the project area and APE are adequately protected. PG&E will pursue the following actions in this regard:</p> <p>a. Continue implementing the periodic monitoring and condition assessments in a manner that considers all historic properties, as directed by Section 6.6.5 of the CHPMP and Final SEIR Mitigation Measure CUL-1a-3a.</p>	<p>This measure was implemented as directed.</p>

CHPTP ^[a] Section	Requirements	Actions Taken for Compliance With This Measure
	<p>b. Prior to completing the construction phase, evaluate the monitoring program, and propose changes that consider ongoing site access problems; potential impacts to sensitive resources by the monitoring activities themselves; and site locations that pose safety hazards to employees, contractors, and monitors.</p> <p>c. The revised periodic monitoring strategies will consider monitoring at specific sites performed during the Soil NTCRA. The results of construction monitoring will be included in the next periodic monitoring event to avoid duplication in site visits and unnecessary site impacts.</p> <p>d. PG&E will continue monitoring those sites potentially vulnerable to future effects associated with the project on a periodic schedule determined in consultation with BLM and interested parties; the CHPMP anticipates that the frequency of periodic monitoring will decline over time.</p> <p>e. After each periodic monitoring event, PG&E and other interested parties will assess the effectiveness of the program and consider possible adjustments.</p>	
4.4	<p>Procedures for monitoring ground-disturbing construction activities are provided in CHPMP Section 6.6.4; the SEIR MM CUL-1b/c-4a; and CIMP Sections 2.10, 2.12, and 2.13. Protocols applicable to all are provided in Appendix C (Tribal and Archaeological Monitoring Protocol) of the PA. As with periodic site monitoring and condition assessments, construction monitoring is a critically important treatment measure to confirm protective measures are implemented effectively, and to identify and provide appropriate protection for previously undiscovered archaeological and historical sites encountered during construction. As stated in CHPMP Section 6.6.4, "The purpose of the monitoring will be to ensure that construction does not adversely affect the Topock Maze, the TCP within the APE, Route 66, or any other historic properties within the APE." Through implementation of this project guidance, PG&E will pursue the following actions:</p>	Not applicable.
4.4	<p>Notify qualified archaeological and Tribal monitors at least 2 weeks in advance, and invite them to be onsite during grading, trenching, boring, drilling, or other excavation for new injection, extraction, or monitoring wells; new pipelines; new treatment facilities; new access roads; new staging areas; other new transportation facilities; or other new project components (CHPMP Section 6.6.4; CUL-1b/c-4a; CIMP Section 2.12).</p>	<p>Consistent with site practices, PG&E published a daily construction activities list and discussed the list at the morning meetings with Tribes and Agency Representatives. This daily list was intended to inform and facilitate observations by Tribes and Agency Representatives onsite on that day.</p> <p>These weekly and daily communication tools were used to fulfill the requirements of the PA Appendix C Monitoring Protocol to keep Tribes and BLM well informed of project activities and outcomes.</p>
4.4	<p>Confirm Tribal and Archaeological Monitors comply with all safety requirements (CHPMP Section 6.6.4).</p>	<p>Consistent with site practices, Archaeological Monitors attended the site safety training and daily meetings where safety topics were discussed. Tribal Monitors were also invited.</p>
4.4	<p>Confirm monitors are qualified and perform their duties as specified in Appendix C of the PA.</p>	<p>This measure was implemented as directed.</p>
4.4	<p>Monitor remediation facilities and staging areas during construction (CIMP Section 2.16).</p>	<p>This measure was implemented as directed.</p>
4.4	<p>Confirm monitors work as part of the construction crew, participating in all daily construction meetings and advising the Project Manager and Construction Site Superintendent regarding avoidance of effects and other cultural resource issues.</p>	<p>Archaeological Monitors attended daily meetings where planned construction activities are discussed. Tribal Monitors were also invited.</p>
4.4	<p>Maintain Daily Monitoring Logs detailing results of the monitoring effort and follow these steps:</p> <ol style="list-style-type: none"> 1. Keep Daily Monitoring Logs on file with PG&E's Archaeologist and the PG&E Topock Site Manager. 2. Forward copies of the Daily Monitoring Logs to BLM and, upon request, to any of the concerned Tribes (CHPMP Section 6.6.4). 	<p>Consistent with site practices, Archaeological Monitors maintained Daily Monitoring Logs, and these logs are on file with PG&E's Archaeologist and available to BLM immediately upon request.</p>
4.4	<p>During construction, PG&E will document monitoring activities in monthly reports (CUL-1b/c-4a).</p>	<p>This measure was implemented as directed.</p>
4.4	<p>Tribal monitors will prepare and submit Daily Monitoring Logs (CIMP Section 2.12).</p>	<p>Not applicable to PG&E.</p>
4.4	<p>Confirm monitors record date- and time-stamped digital photos of cultural sites to document site conditions at the time of surface disturbance (CHPMP Section 6.6.4).</p>	<p>Archaeologists recorded date and time-stamped digital photos of cultural sites to document site conditions at the time of surface disturbance.</p>
4.4	<p>After each monitoring event, assess the effectiveness of the construction monitoring program, and consider possible adjustments.</p>	<p>This measure was implemented as directed.</p>
4.4	<p>If monitoring reveals previously unknown remains during grading, trenching, or other construction work, cease activities in the vicinity of the discovery until the archaeological or Tribal monitor have evaluated the discovery and a course of action is decided upon in accordance with the Discovery Plan (CHPMP Section 6.6.4; CHPMP, Appendix C; CIMP Section 2.15).</p>	<p>No discovery of unknown remains occurred during the Soil NTCRA.</p>
4.4	<p>Confirm the following treatment actions in the TCP are implemented prior to the initiation of ground-disturbing activities:</p> <ol style="list-style-type: none"> 1. Temporary barriers are placed around sensitive locations near proposed actions (CIMP Section 2.15). 2. Tribal access for cultural activity purposes is provided to the extent feasible during construction (CIMP Section 2.11). 3. Cultural sensitivity training is provided to workers (PA, Appendix C; CUL-1a-13a). 4. Plant transplantation and monitoring is implemented according to protocols (CUL-1a-5; CIMP, Appendix A). 5. Clean soil cuttings are repatriated according to protocols (CUL-1a-17). 6. The public education initiative is implemented, including the brochure (CUL-1a-3c). 	<p>This measure was implemented as directed.</p>
4.4	<p>In regard to treatment actions proposed for NOTH and Route 66, confirm monitors conduct a preconstruction field verification to examine the proximity of flagged activity areas to resources.</p>	<p>Not related to the Soil NTCRA.</p>

CHPTP ^[a] Section	Requirements	Actions Taken for Compliance With This Measure
4.4	Confirm appropriate paints are used to minimize visual intrusions and mature plants are placed where feasible for screening (CIMP Section 2.9).	Not related to the Soil NTCRA.
4.4	Prior to completing the groundwater remedy construction phase: <ol style="list-style-type: none"> 1. Evaluate implications for the periodic monitoring program, and propose changes that consider ongoing site access problems; potential impacts to sensitive resources by the monitoring activities themselves; and site locations that pose safety hazards to employees, contractors, and monitors. 2. Provide results of construction monitoring during the next periodic monitoring event to avoid duplication in site visits and unnecessary site impacts. 	Not related to the Soil NTCRA.

Sources: California Department of Toxic Substances Control (DTSC). 2018. *Final Subsequent Environmental Impact Report for the Pacific Gas and Electric Company Topock Compressor Station Final Groundwater Remediation Project*. April 24.

^[a] Applied Earthworks (AE). 2018. *Final Cultural and Historic Properties Treatment Plan for Groundwater Remediation the Topock Compressor Station Remediation Project, San Bernardino County, California, and Mohave County, Arizona*. August.

BLM = U.S. Bureau of Land Management

CHPTP = Cultural and Historical Property Treatment Plan

CIMP = Cultural Impact Minimization Program

County = San Bernardino County, California

GPS = global positioning system

HAER = Historic American Engineering Record

NOTH = National Old Trails Highway

NTCRA = Non-Time-Critical Removal Action

PA = Programmatic Agreement

SEIR = Subsequent Environmental Impact Report

SPY = Soil Processing Yard

Revised Table 4-5. Summary of Compliance with the Bird Impact Avoidance and Minimization Plan

Soil Non-Time Critical Removal Action Completion Report

PG&E Topock Compressor Station, Needles, California

Item No.	Reference Location in BIAMP Document	Relevant Excerpt from Document ^[a]	Actions Taken to Comply with this Measure
1	Section 6.1	Prior to the initiation of any ground disturbing or noise generating project activities outside of the fenced areas of the Compressor Station between March 15 and September 30, a qualified biologist shall conduct a preconstruction survey in areas of potentially suitable habitat for nests and nesting bird behavior. The appropriate area to be surveyed and the timing of the survey may vary depending on the activity and species that could be affected.	During the nesting season for migratory birds from March 15 through September 30, Biological Monitors conducted daily preconstruction surveys to verify there were no nesting birds adjacent to the primary work zones during the Soil NTCRA. During the duration of the project, one active ash-throated flycatcher nest was observed within the project area.
2	Section 6.1	The location of any active nest shall be flagged, mapped, and communicated to the project foreperson. For each identified active nest, the biologist will record species, nest location, behavior, site conditions, estimated date of nest establishment, and estimated fledge date.	This measure was implemented as directed. During the duration of the project, one active ash-throated flycatcher nest was observed within the project area. Construction buffers were established to protect the nest until the fledglings left the nesting area.
3	Section 6.1	To avoid impacts to nesting MBTA protected and California Fish and Game Code §3503 and 3503.5 species, a buffer of up to 400 feet will be established around all identified active nests, as recommended in Table 6-1. Buffer distances will be dependent on feasibility and practicability, and a biologist will develop a site-specific plan (i.e., a plan that considers the type and extent of the proposed activity, the duration and timing of the activity, and the sensitivity and habituation of the birds, and the dissimilarity of the proposed activity with background activity) to minimize impacts to nesting birds. As discussed in Section 7.2, the biologist will assess the activity effect, ambient activities, site conditions, and bird behavior to determine the efficacy of activity-free areas.	This measure was implemented as directed. During the duration of the project, one active ash-throated flycatcher nest was observed within the project area. Construction buffers were established as recommended in Table 6-1 ^[a] to protect the nest until the fledglings left the nesting area.
4	Section 6.1	To avoid impacts to other special-status bird species, a buffer of up to 500 feet will be established around identified active nests as recommended in Table 6-2. Riparian areas surrounding the proposed action site and subject to influence of operations and maintenance activities shall be surveyed for southwestern willow flycatcher according to the protocol established by the USFWS. Passive listening surveys for southwestern willow flycatcher will be completed by a biologist prior to activities beginning within Southwestern willow flycatcher habitat and the floodplain during nesting season (May 15 – July 17). Passive listening surveys shall follow the survey protocol previously established between PG&E and USFWS. Species-specific Avoidance and Minimization Measures (AMMs) in Section 6.2 include additional restrictions for southwestern willow flycatcher, Yuma clapper rail, and the western yellow-billed cuckoo.	Soil NTCRA activities did not occur in or within any of the BIAMP buffers for riparian or marsh habitat for southwestern willow flycatcher, Yuma Ridgway's rail, or western yellow-billed cuckoo. Therefore, preconstruction nesting bird surveys for special-status bird species were not needed. The only exception was the Soil NTCRA staging area near the Route 66 sign on NOTH that was within 300 feet of Yuma Ridgway's rail habitat. Protocol-level Yuma Ridgway's rail surveys were completed jointly with HNWR and PG&E's onsite Biologists before use of the staging area. Survey results were negative.
5	Section 6.1	Activity-free buffers should be designated around active nesting areas in conformance with the BIAMP. Project activities within the activity-free area will be prohibited until the nesting pair and young have vacated the nests. The biologist will use maps, flagging, signage, and tailboard meetings as needed to ensure that project crews are aware of the location and intent of the activity-free area.	This measure was implemented as directed. During the duration of the project, one active ash-throated flycatcher nest was observed within the project area. Construction buffers were established as recommended in Table 6-1 ^[a] to protect the nest until the fledglings left the nesting area.
6	Section 6.1	The biologist will monitor bird behavior in relation to project activities. With approval from DOI, the activity-free area may be reduced if specific factors or additional protection measures (e.g., visual screening) will ensure the protection of the nest.	The activity-free area or buffer was not reduced for the ash-throated flycatcher nest.
7	Section 6.1	All PG&E employees and the contractors involved with the project shall be required to attend a worker education program prior to working on-site and outside of fenced areas (e.g., the compressor station). This program shall include information about protected bird species (and where they may occur in the project area) and the AMMs described in this Plan to ensure impacts on special-status birds are not significant. New employees shall receive training prior to working onsite.	PG&E conducted a mandatory WEAT for its Employees, Contractors, and Consultants who were involved in the Soil NTCRA project before starting field work. The WEAT covers the rules and requirements for working onsite, including protected bird species. A total of 504 Employees and Contractors completed the WEAT training for the Soil NTCRA.
8	Section 6.1	Project activity footprints and access routes shall be confined to pre-determined areas. No vehicle travel off of established roads or approved access routes shall be permitted.	Only existing, approved access routes were used; and any new access routes were approved by BLM and HNWR when the designated work areas were expanded. No cross-country travel occurred during construction.
9	Section 6.1	Any vertical pipes or small cavities on equipment or materials that may trap birds shall be capped or otherwise covered when work activity is not occurring at site.	The mandatory WEAT and accompanying brochures for PG&E Employees, Contractors, and Consultants for the Soil NTCRA construction project addressed this measure. No vertical pipes were used for Soil NTCRA field activities.
10	Section 6.1	Trash and food items shall be contained in closed containers and removed daily to reduce attractiveness to opportunistic predators such as coyotes and feral animals.	The mandatory WEAT and accompanying brochures for PG&E Employees, Contractors, and Consultants for the Soil NTCRA construction project addressed this measure. Monitoring for compliance with this measure was conducted throughout the project. Any trash found was immediately removed. Trash container lids were monitored to verify they remained closed.

Item No.	Reference Location in BIAMP Document	Relevant Excerpt from Document ^[a]	Actions Taken to Comply with this Measure
11	Section 6.1	Night-time project site lights outside of the compressor station shall be angled toward the ground and reduced in intensity to levels compatible with safety concerns and limited in duration of usage.	<p>The Lighting Plan developed for the SPY for the groundwater remedy (Jacobs 2019) was implemented for the Soil NTCRA project. The plan described measures regarding:</p> <ul style="list-style-type: none"> ▪ Seasonal restrictions ▪ Lighting angles ▪ Shielding ▪ Lighting hues least damaging to wildlife <p>Lighting at the SPY was only used during the early morning hours and turned off during the day.</p>
12	Section 6.1	Upon project completion, all unused material and equipment shall be removed from the site. This condition does not apply to fenced sites.	Throughout the Soil NTCRA, all unused material, equipment, and SWPPP BMPs were removed from the work area after completion of construction at each location. The final conditions were verified after completion using ERTC closeout site walks with agencies, Landowners and Land Managers, and Tribal Stakeholders to identify punch list items; when those were completed, final compliance with this measure was achieved.
13	Section 6.1	Intentional harassment, killing or collection of any wildlife (including birds) at construction sites and surrounding areas shall be prohibited. Wildlife shall not be handled except in the case of entrapment, injury, or mortality, as described in AMM 15.	The mandatory WEAT and the accompanying brochures for PG&E Employees, Contractors, and Consultants for the Soil NTCRA construction project also addressed this measure. Monitoring for compliance with this measure was conducted throughout the project.
14	Section 6.1	PG&E shall designate a field contact representative (FCR) who will be responsible for overseeing compliance with the AMMs during major ground disturbing (including vegetation removal) or loud noise generating (above ambient levels) project activities outside of the compressor station or fenced areas. The FCR must be onsite during all construction activities. The FCR shall have authority to halt activities that are in violation of the AMMs and/or pose a danger to protected bird species. The FCR will have a copy of the AMMs when work is being conducted on site. The FCR may be a project manager, PG&E representative, or a biologist.	All Soil NTCRA field activities were conducted under the supervision of an FCR. There were 11 PG&E Employees, Contractors, and Biologists who were trained to function as FCRs.
15	Section 6.1	Any dead or injured special status bird species found in the project area shall be reported to the PG&E project biologist, USFWS, CDFW, BLM and, as appropriate, AGFD. Upon locating an individual dead or injured special-status bird species, PG&E shall make initial notification to the BLM and USFWS within three working days of its finding. The notification must be made by telephone and writing to the Lake Havasu BLM Office (1785 Kiowa Avenue Lake Havasu City AZ 86403-2847, 928-505-1200) and the US Fish and Wildlife Service, Ecological Services Field Office (9828 North 31st Ave #C3, Phoenix, AZ 85051-2517, 602-242-0210). The report will include the date and time of the finding or incident (if known), location of the carcass, a photograph, cause of death (if known), and other pertinent information. Animals injured through PG&E activities shall be transported to a qualified veterinarian for treatment at the expense of PG&E. If an injured animal recovers, the USFWS, CDFW, BLM and, as appropriate, AGFD, shall be contacted for final disposition of the animal.	The mandatory WEAT and the accompanying brochures for PG&E Employees, Contractors, and Consultants who were involved in the remedy construction project addressed this measure. During the Soil NTCRA, no dead or injured special-status species were encountered.
16	Section 6.2.1 (Southwestern Willow Flycatcher)	<ol style="list-style-type: none"> 1. The intent of PG&E will be to minimize the net increase of disturbed habitat in the area of potential effect (APE). 2. Riparian areas surrounding the proposed action site and subject to influence of operations and maintenance activities shall be surveyed for southwestern willow flycatcher according to the protocol established by the USFWS. These surveys shall be completed every three years by a biologist permitted by the USFWS to carry out flycatcher surveys until the action has been completed and all facilities have been removed. Reports shall be provided to the biologists in the BLM Lake Havasu Field Office. 3. Construction and development activities that use heavy equipment should occur between July 18 and May 14. The use of any heavy equipment in or near southwestern willow flycatcher habitat after May 15 will require passive listening surveys for southwestern willow flycatcher to be completed by a biologist prior to activities beginning. 4. Minimization measures outlined in the BIAMP for southwestern willow flycatcher will be implemented including preconstruction surveys during the nesting season, awareness training, pre-activity surveys, compliance monitoring, and reporting during field activities. 	<p>Regarding Item 1, no SWFL habitat was disturbed.</p> <p>Regarding Item 2, the email from USFWS on February 11, 2014, which was memorialized in the 2014 Groundwater PBA re-initiation, extended the protocol-level survey frequency to once every 3 years starting in 2017. SWFL surveys were conducted on the following dates in 2024:</p> <ul style="list-style-type: none"> ▪ May 21 to 23 ▪ June 5 to 7 ▪ June 18 to 20 ▪ June 26 to 28 ▪ July 9 to 11 <p>Regarding Items 3 and 4, Soil NTCRA activities did not occur in or within any of the habitat for SWFL. Therefore, preconstruction nesting bird surveys for SWFL were not needed.</p>

Item No.	Reference Location in BIAMP Document	Relevant Excerpt from Document ^[a]	Actions Taken to Comply with this Measure
18	Section 6.2.3. (Yuma Clapper Rail)	<ol style="list-style-type: none"> 1. The intent of PG&E will be to avoid investigative or response actions in or near marshes or wetlands, if at all possible. 2. If future actions are proposed to occur within 300 feet of wetlands or marshes (specifically the eastern boundary of the APE on the Arizona floodplain), project specific review will occur to ensure compliance with the PBA and associated USFWS consultation. 3. Where feasible, actions should not be proposed within the tamarisk habitat under the Interstate 40 and BNSF railway bridges that occur on the HNWR unless otherwise agreed to by the USFWS. 	<p>Regarding Item 1, no Soil NTCRA activities occurred in or near Yuma Ridgway's rail habitat.</p> <p>Regarding Item 2, in compliance with the Soil NTCRA Biological Assessment, protocol-level Yuma Ridgway's rail surveys were completed jointly with HNWR and PG&E's onsite Biologists before construction activities commencing within 300 feet of Yuma Ridgway's rail habitat. Survey results were negative.</p> <p>Regarding Item 3, Soil NTCRA activities did not occur in or within the tamarisk habitat under the Interstate 40 and BNSF railway bridges that occur on the HNWR.</p>

[a] CH2M HILL (CH2M). 2014. *Final Bird Impact Avoidance and Minimization Plan Topock Groundwater Remediation Project*. April 30.

Sources:

Jacobs. 2019. *Soil Processing Yard Lighting Plan*. January 2.

BIAMP = Bird Impacts Avoidance and Minimization Plan

BLM = U.S. Bureau of Land Management

BMP = best management practice

ERTC = Environmental Release to Construct

FCR = Field Contact Representative

HNWR = Havasu National Wildlife Refuge

NOTH = National Old Trails Highway

PA = Programmatic Agreement

PBA = Programmatic Biological Assessment

PG& SPY = Soil Processing Yard

SWFL = southwestern willow flycatcher

PG&E = Pacific Gas and Electric Company

SWPPP = Stormwater Pollution Prevention Plan

USFWS = U.S. Fish and Wildlife Service

WEAT = Worker Environmental Awareness Training

***D-3. Soil Non-Time Critical Removal Action
(NTCRA) Air Monitoring Report***



Topock Compressor Station, Needles, California

Soil Non-Time Critical Removal Action (NTCRA) Air Monitoring Report

Final

January 2025

Pacific Gas and Electric Company



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Acronyms and Abbreviations

°C	degree(s) Celsius
µg/kg	microgram(s) per kilogram
µg/m ³	microgram(s) per cubic meter
AMP	<i>Air Monitoring Plan for Soil Non-Time Critical Removal Action</i>
AOC	area of concern
ARA	ARA Instruments
ASTM	ASTM International
BLM	Bureau of Land Management
CARB	California Air Resources Board
Cr(VI)	hexavalent chromium
D/F	dioxins and furans
DOI	U.S. Department of the Interior
DTSC	California Department of Toxic Substances Control
EPA	U.S. Environmental Protection Agency
IUR	inhalation unit risk
L/min	liter(s) per minute
LOC	level of concern
MDAQMD	Mojave Desert Air Quality Management District
mg/kg	milligram(s) per kilogram
mm	millimeter(s)
NIOSH	the National Institute for Occupational Safety and Health
NTCRA	Non-Time Critical Removal Action
OEHHA	California Office of Environmental Health Hazard Assessment
OSHA	Occupational Safety and Health Administration
PG&E	Pacific Gas and Electric Company
Program QAPP	PG&E Quality Assurance Program Plan
PUF	polyurethane foam
QA	quality assurance
QC	quality control
RPD	relative percent difference
SPY	soil-processing yard
SWMU	solid waste management unit
TAA	Target Action Area

Soil Non-Time Critical Removal Action (NTCRA) Air Monitoring Report

TO-9A	Toxic Organics – 9A
TRC	Technical Review Committee
TWA	time-weighted average
U.S.	United States
yd ³	cubic yard(s)

1. Introduction

This air monitoring report describes the program and procedures that were implemented during the soil Non-Time Critical Removal Action (NTCRA) at the Pacific Gas and Electric Company (PG&E) Topock site. Air monitoring was performed from July 25, 2022, through April 19, 2024, in accordance with the *Air Monitoring Plan for Soil Non-Time Critical Removal Action (AMP)*, Appendix E of the *Work Plan for Soil NTCRA* (Jacobs 2022). Only periodic visual observations of fugitive dust by Compliance personnel were conducted between April 19 and 30, 2024. This report also summarizes the air monitoring results.

1.1 Purpose of Air Monitoring

Air monitoring was conducted during construction to fulfill the following objectives:

- To evaluate the ongoing effectiveness of the dust control program
- To guide modifications to field activities and engineering control measures
- To document that soil removal activities do not result in the migration of soil contaminants beyond the work area boundaries

Perimeter air monitoring was planned when soil NTCRA activities had the potential to generate visible dust. The air monitoring program consisted of both real-time fugitive-dust monitoring and perimeter air sampling for select soil contaminants.

1.2 Site Background

The Topock site is in eastern San Bernardino County, California, approximately 12 miles southeast of Needles, California, south of Interstate 40, near the northern end of the Chemehuevi Mountains. Under direction of the U.S. Department of the Interior (DOI), PG&E commenced the NTCRA soil removal action on July 25, 2022. Field work was substantially completed in February 2024, and approximately 34,706 cubic yards (yd³) of contaminated soil and debris was removed.

From March to May 2024, work was conducted to stabilize the excavation areas as well as remove residual contamination at the soil-processing yard (SPY), west of Moabi Regional Park. Between April 19 and 30, 2024, work occurred primarily at the SPY and involved removal of pockets of residual contamination and final confirmation sampling.

After April 30, 2024, there was minimal groundwater disturbance while awaiting confirmation sampling results. Due to the nature of work activities between April 19 and 30, 2024, only periodic visual observations of fugitive dust were conducted. Compliance personnel demobilized on April 30, 2024. On May 20, 2024, the soil NTCRA field implementation was completed.

Figure 1-1 is a site map that shows the extent of soil excavation under the soil NTCRA.

1.3 Risk-based Levels of Concern

Risk-based levels of concern (LOCs) were developed as a basis for project-specific action levels for the protection of receptors outside the work area. The work area boundary is defined herein as the exclusion zone of a Target Action Area (TAA). The LOCs represent conservative concentrations of compounds that receptors outside the work area could be safely exposed to during construction, have been evaluated for all compounds that have been detected in soil samples collected at the site during prior investigations.

The LOCs were initially developed in the AMP using these assumptions:

- Receptors would be present outside the perimeter of the work areas.
- Exposure from inhalation would be 10 hours per day for an exposure frequency of 10 days on and 4 days off.
- Duration of the soil NTCRA would be 5 months, which is also the exposure duration. However, the construction period was actually 21 months, and the LOCs were recalculated, as shown in Section 1.4, to reflect the 21-month construction period.

1.4 Site Contaminants

Similar to the LOCs established for use during groundwater remedy construction, the LOCs for the soil NTCRA were developed using standard U.S. Environmental Protection Agency (EPA) and California Department of Toxic Substances Control (DTSC) risk assessment methodology, toxicology data, and exposure assumptions (EPA 2009, 2021; DTSC 2020). Both cancer and noncancer health effects were considered. For each type of health effect, the LOC was back-calculated from an established target or from an acceptable cancer risk or noncancer hazard when EPA or DTSC toxicity values are available. The LOCs for cancer effects are based on a target excess cancer risk of 1 in 1 million (1×10^{-6}). The LOCs for noncancer effects are based on a target hazard quotient of 1.

The equations and constants used to calculate the LOCs for this removal action are as follows:

Cancer Effects:

$$(1) \quad LOC_c = \frac{RISK \times AT_c \times 24}{IUR \times EF \times ED \times ET}$$

Where:

Symbol	Parameter	Value
LOC _c	Level of concern for cancer risks (micrograms per cubic meter [$\mu\text{g}/\text{m}^3$])	Compound-specific
RISK	Target cancer risk (unitless)	10^{-6}
AT _c	Averaging time for carcinogenic effects (days)	25,550
IUR	Inhalation unit risk (IUR) ($\mu\text{g}/\text{m}^3$) ⁻¹	Compound-specific
EF	Exposure frequency (days per year)	261
ED	Exposure duration (years)	1.75
ET	Exposure time (hours per day)	10

Noncancer Effects:

$$(2) \quad LOC_{nc} = \frac{HQ \times RfC \times AT_{nc}}{EF \times ED}$$

Where:

Symbol	Parameter	Value
LOC _{nc}	Level of concern for noncancer effects ($\mu\text{g}/\text{m}^3$)	Compound-specific
HQ	Target hazard quotient (unitless)	1
RfC	Reference concentration ($\mu\text{g}/\text{m}^3$)	Compound-specific
AT _{nc}	Averaging time for noncarcinogenic effects (days)	365
EF	Exposure frequency (days per year)	261
ED	Exposure duration (years)	1.75

Table 1-1 presents the LOCs for compounds detected in soil samples. These LOCs were used to determine action levels presented in Section 1.5.

1.5 Action Levels

The project-specific action levels were developed as an indicator to determine whether the dust control measures were effective.

1.5.1 Fugitive Dust

The action level for fugitive-dust monitoring is 100 $\mu\text{g}/\text{m}^3$ for a net (downwind minus upwind) dust concentration at the property line. This action level was based on Mojave Desert Air Quality Management District (MDAQMD) Rule 403, Part C. Use of a direct reading field instrument for fugitive dust monitoring was approved by MDAQMD (Attachment 1).

1.5.2 Hexavalent Chromium, Dioxins and Furans, and Mercury

The equation used to calculate maximum allowable airborne particulate concentrations (based on the approach presented by Marlowe [1999]) for receptor exposure outside the work area was as follows:

$$(3) \quad AL = \frac{LOC \times 1,000,000 \text{ mg/kg}}{CS}$$

Where:

Symbol	Parameter
AL	Action level for airborne particulates ($\mu\text{g}/\text{m}^3$)
LOC	Risk-based level of concern ($\mu\text{g}/\text{m}^3$)
CS	Maximum detected concentration of compound in site soil (milligrams per kilogram [mg/kg])

Table 1-1 presents the action levels for hexavalent chromium (Cr[VI]), dioxins and furans (D/F), and mercury, which were determined as follows:

- Soil data from historical investigations were gathered for the entire site.
- Sample locations within the potential excavation footprint were evaluated (Figure 1-1).
- The maximum reported soil concentration for each compound was determined (Table 1-2) and then used to calculate an airborne particulate action level (Table 1-1).
- All compounds had allowable airborne particulate action levels greater than 100 $\mu\text{g}/\text{m}^3$, except for Cr(VI), at a few locations.

Therefore, the fugitive dust action level of 100 $\mu\text{g}/\text{m}^3$ was used as a conservative indicator to keep airborne particulate concentrations of contaminants potentially leaving the work areas less than their respective LOCs, except for Cr(VI). Using the initial 5-month exposure duration, it was calculated that work areas where Cr(VI) concentrations in soil are greater than 37,000 micrograms per kilogram ($\mu\text{g}/\text{kg}$) could potentially exceed the LOC with fugitive dust concentrations less than 100 $\mu\text{g}/\text{m}^3$.

Confirmation air sampling for Cr(VI) was targeted in TAAs where concentrations in soil were greater than 37,000 $\mu\text{g}/\text{m}^3$ (Table 1-3). Some TAAs with greater concentrations of mercury and D/F were also selected for sampling as a conservative measure to document the effectiveness of the dust control program and that soil removal activities do not result in the migration of these compounds beyond the work area boundaries.

1.5.3 Asbestos

The action levels for asbestos were calculated based on both EPA and California Office of Environmental Health Hazard Assessment (OEHHA) IUR factors and the assumptions in Tables D1-3 and D1-4. The assumptions include target risk values of 10^{-6} for EPA and 10^{-5} for OEHHA. These target risk values were selected because the resulting action levels are greater than the detection limit, based on logistic sampling constraints related to maximum flow rates and sample time limitations.

These values were calculated on an expected 5-month exposure frequency. Unlike Cr(VI), D/F, and mercury, the LOCs for asbestos were updated to the actual 21-month construction period, as actual activities in areas with the potential for asbestos disturbance were much less than 5 months.

2. Air Monitoring and Sampling

This section describes the methods and procedures used for air monitoring and the sampling results.

2.1 Real-time Air Monitoring

This section describes fugitive dust data measurements and meteorological data collection.

2.1.1 Meteorological Data

Meteorological data were obtained from a local reporting station (NOAA-KEED-Needles) (EarthSoft 2024). Handheld wind speed meters were also used near the work areas. Wind speed and wind direction data were documented on an electronic field form with each dust measurement and with each air sampling event. These data were used to inform the upwind and downwind locations for fugitive dust monitoring and air sampling. Supplemental meteorological data were also obtained from sensors mounted on select continuous particulate monitoring equipment (Aeroqual), as well as a sensor permanently stationed at the SPY. All meteorological data are available electronically upon request.

2.1.2 Fugitive Dust

Real-time fugitive dust monitoring was planned at the perimeter of work areas (outside of the exclusion zone of a TAA) that had potential to generate visible dust, including at the SPY. The dust monitoring was initially performed with a direct reading instrument (TSI DustTrak), with a reporting limit of $1 \mu\text{g}/\text{m}^3$, from July 2022 to September 2023. Observations were collected on electronic field forms presented in Table D2-1. Where visible dust was observed, dust measurements were collected from one upwind and two downwind locations. The measurements were collected just outside the work area perimeter at breathing zone height, approximately 5 to 6 feet above the ground surface. The measurements were recorded on an electronic field form.

During soil NTCRA, 532 real-time dust monitoring events were conducted (Table D2-2). The upwind reading was subtracted from the average of the downwind readings for each event. The Construction Managers were often notified when conditions for fugitive dust generation were high (for example, high winds, heavy equipment operation) or if a fugitive dust level of greater than $20 \mu\text{g}/\text{m}^3$ was detected. During many of these instances, additional dust suppression measures were proactively applied. Eleven of the events had fugitive dust levels exceeding the $100 \mu\text{g}/\text{m}^3$ limit. In 10 out of 11 of these instances, it was documented that more water was applied, construction activities were stopped, or a combination of both. From February to September 2023, the TSI DustTraks were also used for 20 events to monitor dust continuously (Table D2-3).

A 10-hour time-weighted average (TWA) of readings collected throughout the workday was used to document compliance with MDAQMD Rule 403. None of the 10-hour TWA concentrations exceeded the $100 \mu\text{g}/\text{m}^3$ limit (Table D2-4).

From September 2023 to April 2024, due to the rapid expansion and dynamic nature of the NTCRA excavation areas, perimeter air monitors from Aeroqual Dust Sentry were used instead of the TSI DustTrak to allow for continuous dust measurements (5-minute intervals). During this period, the Aeroqual Dust Sentry monitors were set up to collect data for 180 events around the TAAs or the SPY, and data were averaged over the entire day at each monitoring location (Table D2-5). The average upwind reading was subtracted from the average of the downwind readings for each event (Table D2-6). An instantaneous fugitive dust measurement of greater than $100 \mu\text{g}/\text{m}^3$ was recorded 17 times (Table D2-5).

Compliance personnel were notified by email from the Aeroqual Dust Sentry monitor, and they immediately evaluated the potential sources of the dust. If the source was construction related, Compliance personnel notified Construction Managers for corrective action, such as applying more water or slowing down truck traffic. After the dust level dropped to less than $100 \mu\text{g}/\text{m}^3$, the Aeroqual Dust Sentry monitors cleared the notification alarms.

Calculations of the average of downwind minus upwind dust measurements collected throughout the workday were used to document compliance with MDAQMD Rule 403. None of the daily average calculated concentrations (downwind minus upwind) exceeded the $100 \mu\text{g}/\text{m}^3$ limit (Table D2-6).

2.2 Confirmation Air Sampling

This section describes confirmation air sampling. To the extent practicable, the samples were collected from one upwind and two downwind locations just outside the work area perimeter at breathing zone height, approximately 5 to 6 feet above the ground surface. The following information was recorded on an electronic field form:

- Wind speed
- Wind direction
- Flow rates
- Start and stop times
- Location coordinates

2.2.1 Hexavalent Chromium

Air sampling for Cr(VI) was performed at the perimeter of the work areas inside or near TAAs; specifically, those where Cr(VI) concentrations greater than $37,000 \mu\text{g}/\text{m}^3$ in soil had been historically reported (Table D1-3). This included four different TAAs: areas of concern (AOCs) 9, 10, and 14 and solid waste management unit (SWMU) 1. Air sampling for Cr(VI) in the SPY was also performed several times when soil from TAAs with reported elevated concentrations of Cr(VI) was actively being processed.

Air samples for Cr(VI) were collected following California Air Resources Board (CARB) Method 039 (CARB 2018) using an ARA Instruments (ARA) N-FRM ambient air sampler. The samplers pulled ambient air into a sample inlet and through a 47-millimeter (mm)-diameter sodium bicarbonate cellulose acid-washed filter. The filters were preloaded into cassettes by the laboratory. The sampler was set to a flow rate of 15 liters per minute (L/min) for approximately 5 to 6 hours to bracket the construction activities.

A total of 215 Cr(VI) air samples were collected over 74 different events. Samples were sent to Chester LabNet in Tigard, Oregon, and analyzed following a proprietary standard operating procedure based on CARB Method 039 (CARB 2018) and ASTM International (ASTM) standard ASTM D7614-12 (ASTM 2020). Table D2-7 presents the results.

The project LOC of $0.0009 \mu\text{g}/\text{m}^3$ was exceeded during one air sampling event at AOC10 TAA1 on July 26, 2023. The air samples were sent to the laboratory, and results were received on August 7, 2023. The average of the downwind Cr(VI) concentrations minus the upwind Cr(VI) concentration was $0.0117 \mu\text{g}/\text{m}^3$. After validation of the laboratory data, PG&E notified DOI by email on August 30, 2023, of the Cr(VI) air exceedance, with a copy to the following entities:

- DTSC, HNWR Manager
- Bureau of Land Management (BLM)
- U.S. Bureau of Reclamation

- Interested Tribes:
 - Chemehuevi Indian Tribe
 - Cocopah Indian Tribe
 - Colorado River Indian Tribe
 - Fort Mohave Indian Tribe
 - Hualapai Indian Tribe
- Technical Review Committee (TRC)

Attachment 2 provides the laboratory reports.

2.2.2 Mercury

Air sampling for mercury was performed at the perimeter of the work areas inside or near TAAs; specifically, those where elevated mercury concentrations in soil had been historically reported. This included two different TAAs: AOCs 10 and 14. Air sampling for mercury in the SPY was also performed on one occasion when soil from a TAA with reported elevated concentrations of mercury was actively being processed.

Air samples for mercury were collected following an Occupational Safety and Health Administration (OSHA) modified Method OSHA ID-145 using a battery-operated pump (AirChek) (OSHA 1989). The samplers pulled ambient air through a 37-mm-diameter cellulose ester-membrane filter in a cassette. The sampler was set to a flow rate of 2 L/min for approximately 5 to 6 hours to bracket the construction activities.

A total of 14 mercury air samples were collected over 5 different events. Samples were sent to LA Testing in Huntington Beach, California, and analyzed following Method OSHA ID-145. Table D2-8 presents the results. Mercury was not detected in the upwind or downwind samples. Therefore, the average of the downwind concentrations minus the upwind concentration was not calculated. Attachment 2 provides the laboratory reports.

2.2.3 Asbestos

Air sampling for asbestos was limited to locations where potential asbestos-containing material was observed during NTCRA construction activities. This consisted of two AOCs (AOC 14 and 27) and the SPY. Air samples for asbestos were collected following the National Institute for Occupational Safety and Health (NIOSH) Method NIOSH 7400 (CDC 2019) using a battery-operated pump (Flite 3). The samplers pulled ambient air into a through a 25-mm-diameter cellulose ester-membrane filter in a cassette with a conductive cowl. The sampler was set to a flow rate of 8 L/min for approximately 6 to 7 hours of construction activities.

A total of nine asbestos air samples were collected during four events. Samples were sent to LA Testing in Huntington Beach, California, and analyzed following Methods NIOSH 7400 and 7402 (CDC 2019, 2022). Table D2-9 presents the results. Asbestos was not detected in the upwind or downwind samples. Therefore, the average of the downwind concentrations minus the upwind concentration was not calculated. Attachment 2 provides the laboratory reports.

2.2.4 Dioxins and Furans

Air sampling for D/F was performed at the perimeter of the work areas inside or near TAAs; specifically, those where elevated D/F concentrations in soil had been historically reported. This included three different TAAs: AOCs 10 and 11 and SWMU 1. Air sampling for D/F in the SPY was also performed several times when soil from TAAs with reported elevated concentrations of D/F was actively being processed.

Air samples for D/F were collected following a modified EPA Method Toxic Organics – 9A (TO-9A) (low-volume) using a battery-operated pump (AirChek) (EPA 1999). The samplers pulled ambient air through a polyurethane foam (PUF) cartridge. The sampler was set to a flow rate of 5 L/min for approximately 6 to 8 hours to bracket the construction activities.

A total of 53 D/F air samples were collected over 17 different events. Samples were sent to Pace Analytical Services in Minneapolis, Minnesota, and analyzed following EPA Method TO-9A. Table D2-10 presents the results. All upwind and downwind D/F results were either not detected or detected at concentrations less than the project LOC for D/F. The average of the downwind concentrations minus the upwind concentration was not calculated. Attachment 2 provides the laboratory reports.

3. Quality Assurance and Quality Control Activities

This section describes the quality assurance (QA) and quality control (QC) activities for the NTCRA monitoring events.

3.1 Field Quality Assurance and Quality Control Activities

This section describes the field QA/QC activities.

3.1.1 Field Verifications

The ARA sampler's temperature, barometric pressure, and flow rate were verified every other week. A single-point check was performed using a calibration standard that was sent to the manufacturer and recertified annually. Acceptance criteria of ± 10 mm of mercury for pressure, ± 2 degrees Celsius ($^{\circ}\text{C}$) for temperature, and $\pm 7\%$ for flow rate were not exceeded.

A zero verification was performed on the DustTrak's sensor daily before use, and each unit was sent to the manufacturer annually for recalibration.

3.1.2 Field Quality Control Samples

Field replicates for Cr(VI), mercury, and D/F were collected to confirm the precision of the sample results. Replicate samples consisted of co-located samples at a frequency of approximately 10% of the total number of samples. The relative percent difference (RPD) between the primary and duplicate was calculated and compared to a criterion of 40%. The RPD criterion was not exceeded in the following samples:

- 28 primary and field duplicate pairs collected for Cr(VI)
- 3 primary and field duplicate pairs collected for mercury
- 7 primary and field duplicate pairs collected for D/F

Trip blanks for Cr(VI) and D/F were used to evaluate the potential for contamination from sources not associated with the air being sampled. The trip blanks were chosen at random from the media supplied by the laboratory. Trip blanks were taken to the field stored in the same manner as the field samples, then shipped back to the laboratory along with a group of field samples. Trip blanks were included with each shipment of up to 20 samples. A total of 13 trip blanks for Cr(VI) and 15 trip blanks for D/F were submitted to the laboratories.

Cr(VI) was detected in 1 or more trip blanks, and 13 sample results were qualified as not detected. Various D/F congeners were detected less than the reporting limits in one or more trip blanks. A total of 158 associated detected sample results were less than or equal to 5 times the blank concentration and were qualified as not detected.

3.2 Overall Data Quality Indicator Assessment

Level 2 validation was performed on all data to satisfy the requirements of the AMP (Jacobs 2022) and the *PG&E Program Quality Assurance Program Plan* (Program QAPP) (CH2M 2014). The review aimed to demonstrate that enough representative samples were collected, and that the resulting analytical data could be used to support the project objectives.

The assessment included a review of the following:

- Chain-of-custody documentation
- Holding-time compliance
- Required QC samples at the specified frequencies
- Method blanks
- Laboratory control sample
- Matrix post-spike samples

Data flags were assigned according to the QC acceptance limits defined in the Program QAPP (CH2M 2014).

The assessment met the overall completeness goal of greater than 90%, and no other systematic protocol errors were identified during the monitoring of the field or laboratory efforts. Along with the evaluation for precision, accuracy, representativeness, completeness, compatibility, and sensitivity parameters, this result demonstrates that the overall quality of the analytical program and laboratory is sufficient to meet the project data quality objectives, and that the data are considered usable for making project decisions. The summary of the QA/QC activities and findings are presented in the Data Quality Evaluation (Attachment 3).

4. Summary

The air monitoring and sampling results showed that the dust control program was effective at controlling the migration of soil contaminants beyond the work area boundaries and helped guide modifications to field activities and dust suppression measures. Preemptively applying dust suppression measures when there was more potential for fugitive dust generation or when readings greater than $20 \mu\text{g}/\text{m}^3$ were recorded to help minimize exceedances of the $100 \mu\text{g}/\text{m}^3$ fugitive dust action level (about 2% of the overall events). None of the calculated TWA 10-hour dust concentrations or daily average dust concentrations exceeded the action level. Mercury, D/F, and asbestos were not detected exceeding the LOC in any of the samples collected. Cr(VI) was detected in one downwind pair from one sampling event (1% of total events) exceeding the LOC.

5. References

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Tables

Table 1-1. Levels of Concern and Action Levels for Air Monitoring

Investigation Area	Sample ID	Sample Date	Sample Matrix	Depth	Analyte	Result (µg/kg)	Inhalation Unit Risk (µg/m ³) ⁻¹	RfC or REL µg/m ³	Cancer		Non-Cancer	
									LOC µg/m ³	Airborne Particulate Action Level µg/m ³	LOC µg/m ³	Airborne Particulate Action Level µg/m ³
AOC11	AOC-11e1	9/23/2008	Soil	0 - 0.5	TEQ Human	12	3.80E+01	4.00E-05	0.0000035	294	0.000032	2664
AOC10	AOC-10-20	2/17/2016	Soil	0 - 0.5	Chromium, Hexavalent	2,700,000	1.50E-01	1.00E-01	0.0009	0.33	0.08	30
AOC14	AOC14-16W	2/22/2016	Soil	0.5 - 1	Mercury	180,000		3.00E-02			0.02	133

Notes:

California Department of Toxic Substances Control (DTSC). 2020. *Human Health Risk Assessment Note 3 – DTSC-Modified Screening Levels (DTSC-SLs)*. Human and Ecological Risk Office (HERO). June.

U.S. Environmental Protection Agency (EPA). 2020. *Regional Screening Levels (RSLs) - Generic Tables (May)*.

- µg/kg = microgram(s) per kilogram
- µg/m³ = microgram(s) per cubic meter
- AOC = area of concern
- ID = identification
- LOC = Level of Concern
- REL = Reference Exposure Level
- RfC = Reference Concentration
- TEQ = toxic equivalency

Table 1-2. Maximum Concentrations In Target Action Areas

Target Action Area	Chromium, Hexavalent (µg/kg)	Mercury (µg/kg)	TEQ Human (µg/kg)
AOC1 - TAA1	2,700	110	1.1
AOC1 - TAA2	80,000	260	0.87
AOC1 - TAA3	14,000	110	0.33
AOC10 - TAA1	2,700,000	35,000	1.6
AOC10 - TAA2	150,000	330	0.36
AOC10 - TAA3	2,600	100	0.29
AOC10 - TAA4	9,500	150	0.41
AOC11 - TAA1	3,780	110	3.2
AOC14 - TAA1	20,000	180,000	0.48
AOC16 - TAA1	ND	100	ND
AOC27 - TAA1	4,800	950	0.23
AOC9 - TAA1	114,000	100	0.081
SWMU1 - TAA1	42,000	270	12
SWMU1 - TAA2	47,500	110	ND
SWMU1 - TAA3	1,600	100	1.3
Maximum	2,700,000	180,000	12

µg/kg = microgram(s) per kilogram

AOC = area of concern

ND = not detected

SWMU = solid waste management unit

TAA = Target Action Area

TEQ = dioxin toxic equivalency value

Table 1-3. Asbestos in Air Action Levels, Based on EPA Inhalation Unit Risk

Parameter	Units	Value	Notes
Target risk	Unitless	10^{-6}	—
Unit risk factor	$(\text{f}/\text{cm}^3)^{-1}$	0.23	Based on continuous lifetime exposure
Averaging time	Hours	613,200	70 years, 365 days per year, 24 hours per day
Exposure time	Hours per day	10	—
Exposure frequency	Days per year	110	10 days on, 4 off for 5 months
Exposure duration	Years	1	—
Action level	f/cm^3	2.42×10^{-3}	—

— = not applicable

f/cm^3 = fiber(s) per cubic centimeter

Table 1-4. Asbestos in Air Action Levels, Based on OEHHA Inhalation Unit Risk

Parameter	Units	Value	Notes
Target risk	Unitless	10^{-5}	—
Unit risk factor	$(\text{f}/\text{cm}^3)^{-1}$	1.9	Based on continuous lifetime exposure
Averaging time	Hours	613,200	70 years, 365 days per year, 24 hours per day
Exposure time	Hours per day	10	—
Exposure frequency	Days per year	110	10 days on, 4 off for 5 months
Exposure duration	Years	1	—
Action level	f/cm^3	2.93×10^{-3}	—

— = not applicable

f/cm^3 = fiber(s) per cubic centimeter

Table 2-1. Field Observations

Survey ID	Survey Date	Location	Time Onsite	Time Offsite	Was Dust Observed While Onsite?	Description of Activities Happening Onsite
260703	7/25/2022	ERTC NTCRA 1-AOC11	10:22 AM	12:22 PM	No	NTCRA excavation of AOC11 starting. Area watered and water activity applied to excavator and dump truck activity.
261052	7/26/2022	ERTC NTCRA 1-AOC11	06:52 AM	02:02 PM	Yes	AOC11 NTCRA excavation work.
261612	7/27/2022	ERTC NTCRA 1-AOC10-1	08:46 AM	11:18 AM	Yes	AOC11 excavation for NTCRA.
262001	7/28/2022	ERTC NTCRA 1-AOC10-1	06:56 AM	08:15 AM	Yes	Excavation of AOC11 for NTCRA.
265307	8/8/2022	ERTC NTCRA 1-AOC10-3	08:12 AM	08:48 AM	No	Site prep and setup of exclusion zone in East Ravine for NTCRA excavation.
265574	8/9/2022	ERTC NTCRA 1-AOC11	07:01 AM	08:12 AM	No	Demobilization at AOC11 and decon of equipment to mobilize to AOC10-3/4.
265899	8/9/2022	ERTC NTCRA 1-AOC10-3	11:05 AM	01:39 PM	Yes	Excavation of AOC10-3.
265907	8/10/2022	ERTC NTCRA 1-AOC10-3	06:55 AM	08:24 AM	No	Excavation of NTCRA AOC10-3.
266073	8/10/2022	ERTC NTCRA 1-AOC10-4	08:24 AM	10:07 AM	Yes	Excavation of NTCRA AOC10-4.
269010	8/11/2022	ERTC NTCRA 1-AOC10-4	06:57 AM	07:48 AM	No	NTCRA AOC10-3/4 confirmation sampling.
269014	8/16/2022	ERTC NTCRA 1-AOC10-2	07:54 AM	09:14 AM	No	Site prep moving from AOC10-4 to AOC10-2 for NTCRA excavation.
269014	8/16/2022	ERTC NTCRA 1-AOC10-2	09:54 AM	01:53 AM	No	Site prep for access to AOC10-2.
269016	8/17/2022	ERTC NTCRA 1-AOC10-2	07:29 AM	08:27 AM	No	Final site prep and excavation to begin.
269583	8/19/2022	ERTC NTCRA 1-AOC10-2	07:22 AM	10:06 AM	Yes	NTCRA excavation at AOC10-2. After a series of high dust readings and attempts to apply more water before returning to excavating, work was paused to more thoroughly wet the entire work area before continue with excavation.
269967	8/20/2022	ERTC NTCRA 1-AOC10-2	07:01 AM	10:04 AM	Yes	Watering of AOC10-2 and removal of top of dam road.
269967	8/20/2022	ERTC NTCRA 1-AOC10-2	01:09 PM	03:29 PM	Yes	Removal of top of dam road at AOC10-2. Whole area has been thoroughly watered and water is continuously being added.
269971	8/21/2022	ERTC NTCRA 1-AOC10-2	07:08 AM	11:31 AM	Yes	NTCRA excavation at AOC10-2.
269971	8/21/2022	ERTC NTCRA 1-AOC10-2	12:40 PM	04:15 PM	Yes	NTCRA excavation at AOC10-2.
271240	8/23/2022	ERTC NTCRA 1-AOC10-2	07:04 AM	11:44 AM	Yes	AOC10-2 NTCRA excavation.
271240	8/23/2022	ERTC NTCRA 1-AOC10-2	12:55 PM	03:43 PM	Yes	AOC10-2 NTCRA excavation.
271242	8/24/2022	ERTC NTCRA 1-AOC10-2	07:09 AM	09:45 PM	Yes	AOC10-2 NTCRA excavation.
271242	8/24/2022	ERTC NTCRA 1-AOC10-2	02:05 PM	No time recorded	Yes	AOC10-2 NTCRA excavation.
277383	9/12/2022	ERTC NTCRA 1-AOC11	07:06 AM	No time recorded	No	AOC11 step out excavation for NTCRA. Heavy rains the night before. Area is very muddy.
280065	9/14/2022	ERTC NTCRA 1-AOC11	06:54 AM	02:42 PM	No	NTCRA AOC11 step out excavation. Area is still very damp from rain over last couple days.

Table 2-1. Field Observations

Survey ID	Survey Date	Location	Time Onsite	Time Offsite	Was Dust Observed While Onsite?	Description of Activities Happening Onsite
280069	9/15/2022	ERTC NTCRA 1-AOC11	07:30 AM	02:20 PM	No	AOC11 step out excavation. Area is still damp from in and if rains over the last few days.
280073	9/20/2022	ERTC NTCRA 1-AOC10-2	09:18 AM	10:44 AM	No	Moving mats and access road repair to AOC10-2.
280073	9/20/2022	ERTC NTCRA 1-AOC10-2	12:29 PM	02:49 PM	No	Moving mats and access road repair to AOC10-2.
281942	9/21/2022	ERTC NTCRA 1-AOC10-2	07:45 AM	02:38 PM	Yes	AOC10-2 step out excavations.
283079	9/22/2022	ERTC NTCRA 1-AOC10-2	08:06 AM	04:25 PM	Yes	AOC10-2 step out excavations.
283106	9/23/2022	ERTC NTCRA 1-AOC10-2	08:01 AM	02:52 PM	Yes	AOC10-2 step out excavations and continuation of original excavation area on North side.
283109	9/24/2022	ERTC NTCRA 1-AOC10-2	07:08 AM	01:51 AM	Yes	Excavation at AOC10-2.
283116	9/25/2022	ERTC NTCRA 1-AOC10-2	07:46 AM	01:17 PM	Yes	Excavation at AOC10-2.
283119	9/26/2022	ERTC NTCRA 1-AOC10-2	07:15 AM	04:12 PM	Yes	Excavation at AOC10-2
283334	9/27/2022	ERTC NTCRA 2-SWMU1	07:24 AM	03:35 PM	No	AOC10-2 excavation
283337	9/28/2022	ERTC NTCRA 1-AOC10-2	08:02 AM	02:15 PM	Yes	Excavation at AOC10-2.
283340	9/29/2022	ERTC NTCRA 1-AOC10-2	07:48 AM	02:29 PM	Yes	AOC10-2 excavation
285374	10/4/2022	ERTC NTCRA 1-AOC10-2	09:39 AM	01:35 PM	Yes	AOC10-2 excavation
287364	10/5/2022	ERTC NTCRA 1-AOC10-2	07:19 AM	03:05 PM	Yes	Excavation at AOC10-2.
287366	10/6/2022	ERTC NTCRA 2-SWMU1	12:50 PM	03:02 PM	No	Set up of work area such as fencing and decon area at SWMU1-1.
287367	10/7/2022	ERTC NTCRA 2-SWMU1	07:36 AM	02:42 PM	Yes	First day of SWMU1-1 excavation in BCW. Turn around pad built for trucks.
287370	10/8/2022	ERTC NTCRA 2-SWMU1	07:22 AM	02:43 PM	Yes	Excavation at SWMU1-1
287382	10/9/2022	ERTC NTCRA 2-SWMU1	07:01 AM	03:35 PM	Yes	Excavation at SWMU1-1
287384	10/10/2022	ERTC NTCRA 2-SWMU1	08:15 AM	02:49 PM	Yes	Excavation at SWMU1-1
287387	10/11/2022	ERTC NTCRA 2-SWMU1	07:42 AM	11:18 AM	Yes	Excavation at SWMU1-1.
287391	10/12/2022	ERTC NTCRA 2-SWMU1	07:14 AM	03:01 PM	Yes	Excavation at SWMU1-1
287397	10/13/2022	ERTC NTCRA 2-SWMU1	07:42 AM	09:44 AM	Yes	Excavation at SWMU1-1
288809	10/18/2022	ERTC NTCRA 2-SWMU1	08:21 AM	11:32 AM	No	Backfilling at SWMU1-1 for first part of excavation that transects Pipeline I2. Several rain events occurred over the weekend and whole site is still damp.
289627	10/19/2022	ERTC NTCRA 2-SWMU1	07:42 AM	02:59 PM	No	Backfilling at SWMU1-1 for first part of excavation that transects Pipeline I2. Several rain events occurred over the weekend and whole site is still damp.
290999	10/21/2022	ERTC NTCRA 2-SWMU1	07:24 AM	02:20 PM	Yes	SWMU1-1 backfilling and compaction.
291522	10/24/2022	ERTC NTCRA 2-SWMU1	07:20 AM	02:00 PM	Yes	SWMU1-1 backfilling and compaction.
291524	10/25/2022	ERTC NTCRA 2-SWMU1	07:02 AM	11:26 AM	Yes	SWMU1-1 backfilling and compaction.

Table 2-1. Field Observations

Survey ID	Survey Date	Location	Time Onsite	Time Offsite	Was Dust Observed While Onsite?	Description of Activities Happening Onsite
291527	10/26/2022	ERTC NTCRA 2-SWMU1	07:47 AM	11:46 AM	Yes	SWMU1-1 backfilling and compaction.
292005	10/27/2022	ERTC NTCRA 2-SWMU1	10:33 AM	12:26 PM	No	Dust observed but not from work activities. VERY windy day with sustained winds around 20 mph with gusts 35-40 mph. Safety has advised a shutdown due to high winds. .
293115	11/1/2022	ERTC NTCRA 1-AOC10-2	07:38 AM	01:23 PM	Yes	Sloping work of excavation walls at AOC10-2.
298132	11/2/2022	ERTC NTCRA 1-AOC10-2	08:04 AM	02:30 PM	Yes	Sloping work of excavation walls at AOC10-2.
298160	11/3/2022	ERTC NTCRA 1-AOC10-2	07:49 AM	01:33 PM	Yes	Sloping work at AOC10-2 for excavation safety.
298177	11/11/2022	ERTC NTCRA 1-AOC10-2	07:08 AM	12:45 PM	No	Sloping work at AOC10-2 for excavation safety.
298179	11/14/2022	ERTC NTCRA 1-AOC10-2	07:08 AM	02:45 PM	Yes	Step out excavations at AOC10-2.
298184	11/15/2022	ERTC NTCRA 1-AOC10-2	07:40 AM	03:48 PM	Yes	Step out excavations at AOC10-2.
298187	11/16/2022	ERTC NTCRA 1-AOC10-2	09:36 AM	01:50 PM	Yes	Step out excavations at AOC10-2. Very windy.
298189	11/17/2022	ERTC NTCRA 1-AOC10-2	07:23 AM	11:59 AM	Yes	Step out excavations at AOC10-2.
298203	11/18/2022	ERTC 5aq FW-02	08:44 AM	08:50 AM	No	Well development at FW-2b.
298209	11/18/2022	ERTC NTCRA 1-AOC10-2	11:03 AM	02:17 PM	Yes	Step out excavations at AOC10-2.
320246	3/1/2023	ERTC NTCRA 1-AOC10-2	10:10 AM	10:42 AM	No	Raining. Monitoring for trackout and SWPPP. AOC10-2.
320248	3/2/2023	ERTC NTCRA 1-AOC10-2	06:40 AM	06:53 AM	No	Lots of rain yesterday. Work site too muddy for any activities today. No work today for NTCRA.
320249	3/3/2023	ERTC NTCRA 1-AOC10-2	07:44 AM	08:54 AM	No	Whole site still very damp from rains. AOC10-2 step out excavations in Southwest end of East Ravine.
320249	3/3/2023	ERTC NTCRA 1-AOC10-2	10:06 AM	11:26 AM	No	Whole site still very damp from rains. AOC10-2 step out excavations in Southwest end of East Ravine.
320249	3/3/2023	ERTC NTCRA 1-AOC10-2	12:42 PM	02:28 PM	No	Whole site still very damp from rains. AOC10-2 step out excavations in Southwest end of East Ravine.
320252	3/6/2023	ERTC NTCRA 1-AOC10-2	10:22 AM	11:08 AM	No	AOC10-2 step out excavations.
320252	3/6/2023	ERTC NTCRA 1-AOC10-2	01:00 PM	02:18 PM	No	AOC10-2 step out excavations.
321746	3/7/2023	ERTC NTCRA 1-AOC10-2	08:47 AM	10:09 AM	No	AOC10-2 step out excavations.
321746	3/7/2023	ERTC NTCRA 1-AOC10-2	01:33 PM	03:01 PM	No	AOC10-2 step out excavations.
321756	3/8/2023	ERTC NTCRA 1-AOC10-2	08:51 AM	09:50 AM	No	AOC10-2 step out excavations.
321761	3/9/2023	ERTC NTCRA 1-AOC10-2	12:29 PM	03:18 AM	No	AOC10-2 step out excavations.
321762	3/10/2023	ERTC NTCRA 1-AOC10-2	06:46 AM	07:45 AM	No	AOC10-2 step out excavations.
321762	3/10/2023	ERTC NTCRA 1-AOC10-2	08:37 AM	11:43 AM	No	AOC10-2 step out excavations.
323127	3/13/2023	ERTC NTCRA 1-AOC10-2	10:05 AM	11:19 AM	No	Step out excavations at AOC10-2.
323127	3/13/2023	ERTC NTCRA 1-AOC10-2	01:15 PM	02:31 PM	No	Step out excavations at AOC10-2.

Table 2-1. Field Observations

Survey ID	Survey Date	Location	Time Onsite	Time Offsite	Was Dust Observed While Onsite?	Description of Activities Happening Onsite
323128	3/14/2023	ERTC NTCRA 1-AOC10-2	09:40 AM	11:22 AM	No	AOC10-2 step out excavations.
323128	3/14/2023	ERTC NTCRA 1-AOC10-2	01:01 PM	02:09 PM	No	AOC10-2 step out excavations. It has now begun to rain.
332364	4/6/2023	ERTC NTCRA 1-AOC10-2	01:17 PM	03:09 PM	No	Removing the water from east ravine
332386	4/11/2023	ERTC NTCRA 1-AOC10-4	12:24 PM	03:11 PM	No	Working in AOC 10-4
332395	4/13/2023	ERTC NTCRA 1-AOC10-4	09:12 AM	03:14 PM	No	NTCRA digging in AOC 10-4
332407	4/14/2023	ERTC NTCRA 1-AOC10-4	01:17 PM	No time recorded	No	NTCRA digging in AOC 10-5
332416	4/17/2023	ERTC NTCRA 1-AOC10-2	07:24 AM	03:24 PM	No	Working at AOC 10-2
332418	4/17/2023	ERTC NTCRA 1-AOC10-2	07:50 AM	No time recorded	No	Working at AOC 10-3
337172	4/18/2023	ERTC NTCRA 1-AOC10-2	10:38 AM	No time recorded	No	Working on backfilling AOC 10-2 at ramp
337188	4/19/2023	ERTC NTCRA 1-AOC10-2	12:24 PM	02:57 PM	No	Working at AOC 10-2
337190	4/20/2023	ERTC NTCRA 1-AOC10-2	01:34 PM	02:57 PM	No	Working on clearing out around the well heads at AOC10-2.
337217	4/26/2023	ERTC NTCRA 1-AOC10-2	01:33 PM	02:55 PM	No	AOC 10-2 cleaning up
337230	4/27/2023	ERTC NTCRA 1-AOC10-2	09:55 AM	03:02 PM	No	Removing soil that had washed into AOC 10-2 from rain event. Found concrete.
337244	4/28/2023	ERTC NTCRA 1-AOC10-2	08:03 AM	03:03 PM	No	Continue to excavate soil at AOC10-2.
350442	5/2/2023	ERTC NTCRA 1-AOC10-2	09:45 AM	02:47 PM	No	Working on NTCRA AOC 10-2
350449	5/3/2023	ERTC NTCRA 1-AOC10-2	08:26 AM	02:48 PM	No	Moving in-flow material from rain.
350456	5/4/2023	ERTC NTCRA 1-AOC10-2	07:57 AM	02:48 PM	No	Backfilling and compaction of excavation.
350482	5/17/2023	ERTC NTCRA 1-AOC10-2	02:10 PM	02:52 AM	No	Excavation on AOC 10-2
350485	5/18/2023	ERTC NTCRA 1-AOC10-4	11:14 AM	02:53 AM	No	Encountered white materials at AOC 10-4. Step out.
350512	5/25/2023	ERTC NTCRA 1-AOC10-2	07:41 AM	02:57 PM	No	Working in AOC 10-2 sloping
350880	6/1/2023	ERTC NTCRA 1-AOC10-2	08:48 AM	08:54 AM	No	make safe sloping
351370	6/2/2023	ERTC NTCRA 1-AOC10-2	09:05 AM	No time recorded	No	moving dirt to make safe slope
353166	6/7/2023	ERTC NTCRA 1-AOC10-4	09:24 AM	No time recorded	No	make safe sloping
353906	6/8/2023	ERTC NTCRA 1-AOC10-2	08:36 AM	No time recorded	No	make safe sloping
357844	6/14/2023	ERTC NTCRA 1-AOC10-4	07:16 AM	No time recorded	No	Continue to excavate at AOC 10-4 where white material was encountered.
357850	6/15/2023	ERTC NTCRA 1-AOC10-3	10:14 AM	No time recorded	No	No entry recorded
364300	6/20/2023	ERTC NTCRA 2-SWMU1	12:25 PM	No time recorded	No	Excavation at smwu 1-1
364299	6/21/2023	ERTC NTCRA 2-SWMU1	07:18 AM	02:00 PM	No	Excavation at smwu 1-1
364299	6/21/2023	ERTC NTCRA 2-SWMU1	07:22 AM	02:01 PM	No	Excavation at smwu 1-1
364299	6/21/2023	ERTC NTCRA 2-SWMU1	08:01 AM	02:05 PM	No	Excavation at smwu 1-1
364309	6/22/2023	ERTC NTCRA 2-SWMU1	07:50 AM	No time recorded	No	Excavation at smwu 1-1

Table 2-1. Field Observations

Survey ID	Survey Date	Location	Time Onsite	Time Offsite	Was Dust Observed While Onsite?	Description of Activities Happening Onsite
364316	6/23/2023	ERTC NTCRA 2-SWMU1	08:44 AM	No time recorded	No	Excavation at smwu 1-1
364318	6/26/2023	ERTC NTCRA 1-SPY	06:45 AM	02:19 PM	No	Excavation at smwu 1-1
364318	6/26/2023	ERTC NTCRA 1-SPY	06:46 AM	02:19 PM	No	Excavation at smwu 1-1
364318	6/26/2023	ERTC NTCRA 1-SPY	06:51 AM	02:22 PM	No	Excavation at smwu 1-1
364318	6/26/2023	ERTC NTCRA 1-SPY	07:00 AM	02:25 PM	No	Excavation at smwu 1-1
364336	6/27/2023	ERTC NTCRA 2-SWMU1	11:08 AM	No time recorded	No	No entry recorded
364337	6/29/2023	ERTC NTCRA 2-SWMU1	08:39 AM	No time recorded	No	No entry recorded
371313	7/11/2023	ERTC NTCRA 1-AOC9	09:00 AM	No time recorded	No	Fusing water line
371859	7/12/2023	ERTC NTCRA 1-AOC10-1	10:03 AM	No time recorded	No	Erecting fencing
371860	7/13/2023	ERTC NTCRA 1-AOC10-1	06:53 AM	No time recorded	No	Clearing vegetation at top of AOC10-1
371865	7/14/2023	ERTC NTCRA 1-AOC10-1	08:23 AM	No time recorded	No	Clearing vegetation at top of AOC10-2
374331	7/17/2023	ERTC NTCRA 1-AOC9	08:41 AM	No time recorded	No	Working in AOC9
374331	7/17/2023	ERTC NTCRA 1-AOC10-3	09:25 AM	No time recorded	No	AOC 10-3 backfill
374336	7/18/2023	ERTC NTCRA 1-AOC10-1	09:18 AM	No time recorded	No	Working on AOC10-1 site set up
374336	7/18/2023	ERTC NTCRA 1-AOC10-4	10:08 AM	No time recorded	No	Backfill and compaction
374339	7/19/2023	ERTC NTCRA 1-AOC10-1	09:26 AM	No time recorded	No	Erecting fence and barbed wire
374339	7/19/2023	ERTC NTCRA 1-AOC10-4	09:54 AM	No time recorded	No	Backfill and compaction
374343	7/20/2023	ERTC NTCRA 1-AOC10-1	08:25 AM	No time recorded	No	Excavation at AOC10-1. Day lighting utilities
374349	7/21/2023	ERTC NTCRA 1-AOC10-1	09:34 AM	No time recorded	No	Working at AOC 10-1
374352	7/24/2023	ERTC NTCRA 1-SPY	07:04 AM	02:26 PM	No	Soil management at SPY
374352	7/24/2023	ERTC NTCRA 1-SPY	07:07 AM	02:23 PM	No	Soil management at SPY
374352	7/24/2023	ERTC NTCRA 1-SPY	07:16 AM	02:30 PM	No	Soil management at SPY
374354	7/24/2023	ERTC NTCRA 1-AOC10-2	08:10 AM	No time recorded	No	Working at AOC10-2
374359	7/25/2023	ERTC NTCRA 1-AOC10-1	06:56 AM	No time recorded	No	Working at AOC10-1
374364	7/26/2023	ERTC NTCRA 1-AOC10-1	06:18 AM	01:37 PM	No	Working at AOC10-1
374364	7/26/2023	ERTC NTCRA 1-AOC10-1	06:45 AM	01:30 PM	No	Working at AOC10-1
374364	7/26/2023	ERTC NTCRA 1-AOC10-1	06:53 AM	01:30 PM	No	Working at AOC10-1
374366	7/26/2023	ERTC NTCRA 1-AOC10-1	08:39 AM	No time recorded	No	Excavation center cut top of AOC 10-1
374371	7/27/2023	ERTC NTCRA 1-AOC10-1	07:37 AM	No time recorded	No	No entry recorded
374375	7/28/2023	ERTC NTCRA 1-AOC10-1	07:44 AM	No time recorded	No	No entry recorded
374379	7/31/2023	ERTC NTCRA 1-AOC10-1	09:51 AM	No time recorded	No	No entry recorded
375673	8/3/2023	ERTC NTCRA 1-AOC10-1	08:25 AM	02:08 PM	No	Moving plates from TCS
385722	9/8/2023	ERTC NTCRA 1-AOC10-1	09:19 AM	09:34 AM	No	Working at AOC10-1

Table 2-1. Field Observations

Survey ID	Survey Date	Location	Time Onsite	Time Offsite	Was Dust Observed While Onsite?	Description of Activities Happening Onsite
386258	9/14/2023	ERTC NTCRA 1-SPY	11:40 AM	11:45 AM	N/A	PG&E · SPY2 (DS 18082020-1309) TSP exceeded set point (100.0 µg/m ³) at 9/14/2023 11:40 AM TSP set point cleared (50.0 µg/m ³) at 9/14/2023 11:45 AM The action taken is "To Inform CM to Apply more Water"
386259	9/14/2023	ERTC NTCRA 1-SPY	01:10 PM	01:15 PM	N/A	PG&E · SPY2 (DS 18082020-1309) Alert TSP exceeded set point (100.0 µg/m ³) at 9/14/2023 1:10 PM TSP set point cleared (50.0 µg/m ³) at 9/14/2023 1:15 PM The action taken is "To Inform CM to Apply more Water"
386260	9/14/2023	ERTC NTCRA 1-SPY	01:25 PM	01:30 PM	N/A	PG&E · SPY2 (DS 18082020-1309) Alert TSP exceeded set point (100.0 µg/m ³) at 9/14/2023 1:25 PM TSP set point cleared (50.0 µg/m ³) at 9/14/2023 1:30 PM The action taken is "To Inform CM to Apply more Water"
386262	9/14/2023	ERTC NTCRA 1-SPY	02:50 PM	No time recorded	N/A	PG&E · SPY2 (DS 18082020-1309) Alert TSP exceeded set point (100.0 µg/m ³) at 9/14/2023 2:50 PM No cleared alert The action taken is "To Inform CM to Apply more Water"
386502	9/14/2023	ERTC NTCRA 2-SWMU1	07:56 AM	No time recorded	No	Swmu1-1 excavation
387580	9/19/2023	ERTC NTCRA 1-SPY	12:25 PM	12:40 PM	N/A	PG&E · SPY2 (DS 18082020-1309) TSP exceeded set point (100.0 µg/m ³) at 9/19/2023 12:25 PM TSP set point cleared (50.0 µg/m ³) at 9/19/2023 12:40 PM
387589	9/19/2023	ERTC NTCRA 1-SPY	01:25 PM	No time recorded	N/A	PG&E · SPY2 (DS 18082020-1309) Alert TSP exceeded set point (100.0 µg/m ³) at 9/19/2023 1:25 PM
387590	9/19/2023	ERTC NTCRA 1-SPY	02:05 PM	02:10 PM	N/A	PG&E · SPY2 (DS 18082020-1309) Alert TSP exceeded set point (100.0 µg/m ³) at 9/19/2023 2:05 PM TSP set point cleared (50.0 µg/m ³) at 9/19/2023 2:10 PM
387609	9/19/2023	ERTC NTCRA 1-SPY	02:15 PM	02:30 PM	N/A	PG&E · SPY2 (DS 18082020-1309) Alert TSP exceeded set point (100.0 µg/m ³) at 9/19/2023 2:15 PM TSP set point cleared (50.0 µg/m ³) at 9/19/2023 2:30 PM
388330	9/20/2023	ERTC NTCRA 1-SPY	02:45 PM	02:50 PM	N/A	PG&E · SPY2 (DS 18082020-1309) Alert TSP exceeded set point (100.0 µg/m ³) at 9/20/2023 2:45 PM TSP set point cleared (50.0 µg/m ³) at 9/20/2023 2:50 PM
388654	9/21/2023	ERTC NTCRA 1-SPY	10:05 AM	10:10 AM	N/A	PG&E · SPY2 (DS 18082020-1309) Alert TSP exceeded set point (100.0 µg/m ³) at 9/21/2023 10:05 AM TSP set point cleared (50.0 µg/m ³) at 9/21/2023 10:10 AM

Table 2-1. Field Observations

Survey ID	Survey Date	Location	Time Onsite	Time Offsite	Was Dust Observed While Onsite?	Description of Activities Happening Onsite
388697	9/21/2023	ERTC NTCRA 1-SPY	10:35 AM	10:40 AM	N/A	PG&E · SPY2 (DS 18082020-1309) Alert TSP exceeded set point (100.0 µg/m ³) at 9/21/2023 10:35 AM TSP set point cleared (50.0 µg/m ³) at 9/21/2023 10:40 AM
388740	9/21/2023	ERTC NTCRA 1-SPY	01:05 PM	01:15 PM	N/A	PG&E · SPY2 (DS 18082020-1309) Alert TSP exceeded set point (100.0 µg/m ³) at 9/21/2023 1:05 PM TSP set point cleared (50.0 µg/m ³) at 9/21/2023 1:15 PM
390002	9/26/2023	ERTC NTCRA 1-SPY	01:25 PM	01:30 PM	N/A	PG&E · SPY2 (DS 18082020-1309) Alert TSP exceeded set point (100.0 µg/m ³) at 9/26/2023 1:25 PM TSP set point cleared (50.0 µg/m ³) at 9/26/2023 1:30 PM
395346	10/12/2023	ERTC NTCRA 2-AOC27	09:41 AM	09:43 AM	No	AOC27 excavation
395456	10/12/2023	ERTC NTCRA 1-AOC10-1	02:22 PM	02:23 PM	No	excavation and backfill top of AOC 10-1
397195	10/12/2023	ERTC NTCRA 2-AOC27	02:40 PM	No time recorded	No	AOC27 excavation
397979	10/18/2023	ERTC NTCRA 1-SPY	09:00 AM	09:05 AM	N/A	PG&E · SPY2 (DS 18082020-1309) Alert TSP exceeded set point (100.0 µg/m ³) at 10/18/2023 9:00 AM TSP set point cleared (50.0 µg/m ³) at 10/18/2023 9:05 AM The spike occurred right when the zero calibration filter was removed and the units cover was replaced. It was not an actual soil disturbance related event.
413317	12/19/2023	Other	01:45 PM	01:50 PM	N/A	Topock3 (DS 01082023-2384) Alert TSP exceeded set point (100.00 µg/m ³) at 12/19/2023 1:45 PM TSP set point cleared (50.00 µg/m ³) at 12/19/2023 1:50 PM
415957	1/9/2024	ERTC NTCRA 3 AOC1-1 & AOC14	01:21 PM		No	AOC14 excavation and ground disturbance
416147	1/10/2024	ERTC NTCRA 3 AOC1-1 & AOC14	08:29 AM	08:43 AM	No	AOC14 excavation
416331	1/10/2024	ERTC NTCRA 1-SPY	01:10 PM	01:15 PM		PG&E · SPY2 (DS 18082020-1309) Alert TSP exceeded set point (100.0 µg/m ³) at 1/10/2024 1:10 PM TSP set point cleared (50.0 µg/m ³) at 1/10/2024 1:15 PM
417614	1/17/2024	ERTC NTCRA 3 AOC1-1 & AOC14	09:46 AM	09:52 AM	No	AOC14 excavation
421590	2/6/2024	ERTC NTCRA 3 AOC1-1 & AOC14	09:32 AM	09:32 AM	No	AOC14 excavation
430421	3/20/2024	ERTC NTCRA 1-SPY	11:30 AM	11:35 AM	N/A	PG&E · SPY1 (DS 08052020-1216) TSP exceeded set point (100.0 µg/m ³) at 3/20/2024 11:30 AM TSP set point cleared (50.0 µg/m ³) at 3/20/2024 11:35 AM Triggered by dust from haul truck

Table 2-1. Field Observations

Survey ID	Survey Date	Location	Time Onsite	Time Offsite	Was Dust Observed While Onsite?	Description of Activities Happening Onsite
430887	3/21/2024	ERTC NTCRA 1-SPY	10:15 AM	10:20 AM	N/A	PG&E · SPY2 (DS 18082020-1309) Alert TSP exceeded set point (100.0 µg/m ³) at 3/21/2024 10:15 AM TSP set point cleared (50.0 µg/m ³) at 3/21/2024 10:20 AM movement of materials from upper SPY to lower SPY.
438038	4/17/2024	ERTC NTCRA 1-SPY	10:55 AM	11:15 AM	N/A	PG&E · SPY2 (DS 18082020-1309) Alert TSP exceeded set point (100.0 µg/m ³) at 4/17/2024 11:15 AM TSP set point cleared (50.0 µg/m ³) at 4/17/2024 11:35 AM
438522	4/18/2024	ERTC NTCRA 1-SPY	01:50 PM	01:55 PM	N/A	PG&E · SPY2 (DS 18082020-1309) Alert TSP exceeded set point (100.0 µg/m ³) at 4/18/2024 1:50 PM TSP set point cleared (50.0 µg/m ³) at 4/18/2024 1:55 PM
306232	01/03/2023	ERTC NTCRA 1-AOC10-3	11:46 AM	No time recorded	No	Back filling at AOC103.
306236	01/04/2023	ERTC NTCRA 1-AOC10-1	10:50 AM	03:50 PM	No	Work at AOC10-1
306426	01/05/2023	ERTC NTCRA 1-AOC10-2	07:59 AM	No time recorded	No	NTCRA AOC10-2 excavation
307361	01/06/2023	ERTC NTCRA 1-AOC10-2	08:43 AM	No time recorded	No	NTCRA AOC10-2 excavation
308109	01/11/2023	ERTC NTCRA 1-AOC10-1	09:45 AM	No time recorded	No	Working on AOC 1 site prep ground work
312718	01/26/2023	ERTC NTCRA 2-SWMU1	06:46 AM	02:08 PM	No	Excavate at SWMU1-1
312718	01/26/2023	ERTC NTCRA 2-SWMU1	07:02 AM	02:18 PM	No	Excavate at SWMU1-1
312718	01/26/2023	ERTC NTCRA 2-SWMU1	07:52 AM	02:10 PM	No	Excavate at SWMU1-1
312720	01/26/2023	ERTC NTCRA 1-SPY	08:04 AM	02:34 PM	No	Soil management at SPY
312720	01/26/2023	ERTC NTCRA 1-SPY	08:10 AM	02:40 PM	No	Soil management at SPY
312720	01/26/2023	ERTC NTCRA 1-SPY	08:16 AM	02:43 PM	No	Soil management at SPY
313956	02/06/2023	ERTC NTCRA 3 AOC1-1 & AOC14	08:59 AM	11:35 AM	Yes	AOC14 site prep work. Building entrance from I40.
313956	02/06/2023	ERTC NTCRA 3 AOC1-1 & AOC14	02:38 PM	03:17 PM	Yes	AOC14 site prep work. Building entrance from I40.
315199	02/07/2023	ERTC NTCRA 3 AOC1-1 & AOC14	10:36 AM	11:49 AM	Yes	Beginning of AOC14 excavation.
315199	02/07/2023	ERTC NTCRA 3 AOC1-1 & AOC14	12:12 PM	01:28 PM	Yes	Beginning of AOC14 excavation.
315202	02/08/2023	ERTC NTCRA 3 AOC1-1 & AOC14	08:39 AM	11:33 AM	Yes	Continuation of AOC14 excavation.
315202	02/08/2023	ERTC NTCRA 3 AOC1-1 & AOC14	12:40 PM	02:07 PM	Yes	Continuation of AOC14 excavation.
315216	02/09/2023	ERTC NTCRA 3 AOC1-1 & AOC14	07:20 AM	08:37 AM	Yes	AOC14 excavation. High winds condition, fugitive dust generation could not be controlled, shutdown work.
315211	02/10/2023	ERTC NTCRA 3 AOC1-1 & AOC14	08:37 AM	09:01 AM	Yes	AOC14 excavation. Smokey day.
315211	02/10/2023	ERTC NTCRA 3 AOC1-1 & AOC14	10:19 AM	11:11 AM	Yes	AOC14 excavation. Smokey day.
315766	02/13/2023	ERTC NTCRA 2-SWMU1	07:17 AM	11:50 AM	Yes	SWMU1-1 step outs into berm on East side and backfilling.
315766	02/13/2023		12:59 PM	02:16 PM	Yes	SWMU1-1 step outs into berm on East side and backfilling.

Table 2-1. Field Observations

Survey ID	Survey Date	Location	Time Onsite	Time Offsite	Was Dust Observed While Onsite?	Description of Activities Happening Onsite
315774	02/14/2023	ERTC NTCRA 3 AOC1-1 & AOC14	06:49 AM	07:13 AM	No	AOC14 wind level check. Sustained reading ~20mph with gusts hitting above 30mph. Work canceled.
315775	02/14/2023	ERTC NTCRA 3 AOC1-1 & AOC14	10:02 AM	10:52 AM	No	AOC1-1 removal of safety ramp and backfilling.
315775	02/14/2023	ERTC NTCRA 3 AOC1-1 & AOC14	11:24 AM	12:58 PM	Yes	AOC1-1 removal of safety ramp and backfilling.
317177	02/15/2023	ERTC NTCRA 2-SWMU1	07:30 AM	08:16 AM	Yes	SWMU1-1 step out excavation at East side of BCW into berm by I2 Pipeline.
317177	02/15/2023	ERTC NTCRA 2-SWMU1	09:05 AM	10:47 AM	Yes	SWMU1-1 step out excavation at East side of BCW into berm by I2 Pipeline.
317177	02/15/2023	ERTC NTCRA 2-SWMU1	12:35 PM	03:27 PM	Yes	SWMU1-1 step out excavation at East side of BCW into berm by I2 Pipeline.
317774	02/16/2023	ERTC NTCRA 2-SWMU1	10:00 AM	11:28 AM	Yes	SWMU1-1 step out excavation at East side of BCW into berm by I2 Pipeline.
317774	02/16/2023	ERTC NTCRA 2-SWMU1	12:34 PM	01:02 PM	Yes	SWMU1-1 step out excavation at East side of BCW into berm by I2 Pipeline.
318743	02/23/2023	ERTC NTCRA 1-AOC10-2	12:30 PM	03:16 PM	Yes	Dedicated continuous dust monitoring set up at site. Upwind, D1, and D2.
318756	02/24/2023	ERTC NTCRA 1-AOC10-2	09:55 AM	10:24 AM	No	Step out excavations at AOC10-2.
318814	02/27/2023	ERTC NTCRA 3 AOC1-1 & AOC14	08:07 AM	No time recorded	No	gwp offloading clean soil to put over top of the ramp at AOC14
318745	02/28/2023	ERTC NTCRA 2-SWMU1	09:23 AM	10:11 AM	No	Step out excavations at SWMU1-1 after confirmation samples came back hot.
284254	10/03/2022	ERTC 18 TCS Pipeline, Conduit and Vault	09:30 AM	11:08 AM	No	Was told the clay pipe inside TCS was to be cut at 9am. Waited two hours and had to leave to ship samples from FedEx.
300611	11/30/2022	ERTC NTCRA 1-AOC10-2	07:51 AM	No time recorded	No	Work at AOC10-2
300611	11/30/2022	ERTC NTCRA 1-AOC10-2	07:57 AM	No time recorded	No	Work at AOC10-2
300611	11/30/2022	ERTC NTCRA 1-AOC10-2	07:58 AM	No time recorded	No	Work at AOC10-2
300628	12/01/2022	ERTC NTCRA 1-AOC10-2	08:19 AM	No time recorded	No	Work at AOC10-2
302903	12/02/2022	ERTC NTCRA 1-AOC10-2	02:07 PM	No time recorded	No	Work at AOC10-2
302906	12/05/2022	ERTC NTCRA 1-AOC10-2	08:34 AM	No time recorded	No	Work at AOC10-2
302911	12/06/2022	ERTC NTCRA 1-AOC10-2	08:30 AM	No time recorded	No	Work at AOC10-2
302931	12/08/2022	ERTC NTCRA 1-AOC10-1	10:13 AM	No time recorded	No	Work at AOC10-1
302935	12/13/2022	ERTC NTCRA 1-AOC10-3	10:15 AM	No time recorded	No	Work at AOC10-3
303347	12/14/2022	ERTC NTCRA 1-AOC10-4	09:12 AM	No time recorded	No	Work at AOC10-4
305833	12/15/2022	ERTC NTCRA 1-AOC10-4	11:04 AM	No time recorded	No	Excavation on 10-4

Table 2-1. Field Observations

Survey ID	Survey Date	Location	Time Onsite	Time Offsite	Was Dust Observed While Onsite?	Description of Activities Happening Onsite
305839	12/16/2022	ERTC NTCRA 1-AOC10-2	09:55 AM	No time recorded	No	Work at AOC10-2
305841	12/19/2022	ERTC NTCRA 1-AOC10-2	08:14 AM	No time recorded	No	Work at AOC10-2
305843	12/20/2022	ERTC NTCRA 1-AOC10-2	09:08 AM	No time recorded	No	Work at AOC10-2
305843	12/20/2022	ERTC NTCRA 1-SPY	10:33 AM	No time recorded	No	Soil management at SPY
305851	12/21/2022	ERTC NTCRA 1-AOC10-2	10:25 AM	No time recorded	No	Work at AOC10-2

µg/m³ = microgram(s) per cubic meter

AOC = area of concern

Avg = average

BCW = Bat cave wash

ERTC = environmental release to construction

ETIC =

gwp = Groundwater Partners

ID = identification

L/min = liter(s) per minute

mph = mile(s) per hour

NTCRA = Non-Time Critical Removal Action

SPY = soil-processing yard

SWMU = solid waste management unit

TCS = Topock Compressor Station

TSP = Total suspended particulate

TWB = Trans western bench

Table 2-2. Real-Time Fugitive-Dust Measurements

Survey Id	Survey Date	Daily Summary - ERTC	ERTC	Time	Description of Ground Disturbance Activity	Wind Direction	Wind Speed (mph)	Upwind Dust Value (µg/m³)	Downwind 1 Dust Value (µg/m³)	Downwind 2 Dust Value (µg/m³)	Average Downwind Value (µg/m³)	Average Downwind Minus Upwind Value (µg/m³)	Additional Comments on High Dust Levels (Exceeding 20 µg/m³)	Action Based on Dust Concentration	CM Action (if necessary)	Entry - Other
260704	7/25/2022	ERTC NTCRA 1-AOC11	AOC11	10:49	Using Excavator/Trenching	Southeast	5	18	12	17	14.5	0	Noted more dust coming from upwind (offsite) than dust from the excavation site	None (default)		
260704	7/25/2022	ERTC NTCRA 1-AOC11	AOC11	11:14	Using Excavator/Trenching	Southeast	7	13	33	28	30.5	17.5	None	None (default)		
260704	7/25/2022	ERTC NTCRA 1-AOC11	AOC11	11:06	Using Excavator/Trenching	Southeast	7	15	26	37	31.5	16.5	None	None (default)		
261053	7/26/2022	ERTC NTCRA 1-AOC11	AOC11	8:03	Using Excavator/Trenching	Southeast	4	13	9	2	5.5	0	5.5	None (default)	None (default)	
261053	7/26/2022	ERTC NTCRA 1-AOC11	AOC11	8:27	Using Excavator/Trenching	Southeast	5	5	83	5	44	39	Instructed water sprayer to direct water towards dry spot that caused some dust.	Informed CM that dust levels are approaching 100 µg/m³	Applied more water	
261053	7/26/2022	ERTC NTCRA 1-AOC11	AOC11	10:21	Using Excavator/Trenching		6	7	10	8	9	2	None	None (default)	None (default)	
261053	7/26/2022	ERTC NTCRA 1-AOC11	AOC11	12:03	Using Excavator/Trenching	Southeast	8	9	39	13	26	17	None	None (default)	None (default)	
261053	7/26/2022	ERTC NTCRA 1-AOC11	AOC11	8:35	Using Excavator/Trenching	South	6	7	39	14	26.5	19.5	None	None (default)	None (default)	
261053	7/26/2022	ERTC NTCRA 1-AOC11	AOC11	12:40	Using Excavator/Trenching	Southeast	7	13	0	22	11	0	None	Other	Other	
261053	7/26/2022	ERTC NTCRA 1-AOC11	AOC11	12:14	Using Excavator/Trenching		8	9	15	44	29.5	20.5	None	None (default)	None (default)	
261471	7/27/2022	ERTC NTCRA 1-SPY	SPY	13:42	Driving, Other	Southeast	10	9	22	10	16	7	None	None (default)	None (default)	SPY readings during AOC11 and BCW I2 line excavation spoils hauling and dumping.
261471	7/27/2022	ERTC NTCRA 1-SPY	SPY	12:37	Other	South	8	8	12	22	17	9	some visible dust. applying lots of water	None (default)	None (default)	Dumping of AOC11 excavation material at SPY.
261471	7/27/2022	ERTC NTCRA 1-SPY	SPY	7:08	Other	Southeast	6	28	28	28	28	0	None	None (default)	None (default)	SPY readings during AOC11 and BCW I2 line excavation spoils hauling and dumping.
261471	7/27/2022	ERTC NTCRA 1-SPY	SPY	10:24	Other	Northeast	0	18	20	30	25	7	Applying a good amount of water. no visible dust	None (default)	None (default)	SPY readings during AOC11 and BCW I2 line excavation spoils hauling and dumping.
261471	7/27/2022	ERTC NTCRA 1-SPY	SPY	12:53	Other	Northeast	5	5	17	80	48.5	43.5	Watering continuously being applied, dirt very hydrophobic.	None (default)	None (default)	Dumping of AOC11 excavation material at SPY.
261613	7/27/2022	ERTC NTCRA 1-AOC11	AOC11	12:22	Using Excavator/Trenching	Northeast	5	10	15	15	15	5	None	None (default)	None (default)	
261613	7/27/2022	ERTC NTCRA 1-AOC11	AOC11	12:35	Other, Using Excavator/Trenching	South	8	8	12	22	17	9	Noted some visible dust. Applying lots of water. Unloading AOC11 excavation material at SPY.	None (default)	None (default)	Dumping of AOC11 excavation material at SPY.
261613	7/27/2022	ERTC NTCRA 1-AOC11	AOC11	9:25	Using Excavator/Trenching	Southeast	1	9	38	31	34.5	25.5	Watering continuously being applied, dirt is very hydrophobic.	Informed CM that dust levels are approaching 100 µg/m3	Stopped construction activities	
261613	7/27/2022	ERTC NTCRA 1-AOC11	AOC11	9:18	Using Excavator/Trenching	Southeast	1	23	55	43	49	26	Watering continuously being applied, dirt is very hydrophobic.	None (default)	None (default)	
261613	7/27/2022	ERTC NTCRA 1-AOC11	AOC11	9:37	Using Excavator/Trenching	Southeast	3	10	50	45	47.5	37.5	Watering continuously being applied, dirt is very hydrophobic.	None (default)	None (default)	
261613	7/27/2022	ERTC NTCRA 1-AOC11	AOC11	9:20	Using Excavator/Trenching	Southeast	1	10	34	60	47	37	Watering continuously being applied, dirt is very hydrophobic.	Informed CM that dust levels are approaching 100 µg/m3	Applied more water	
261613	7/27/2022	ERTC NTCRA 1-AOC11	AOC11	8:51	Using Excavator/Trenching	Southeast	6	21	55	62	58.5	37.5	Watering continuously being applied, dirt is very hydrophobic.	None (default)	None (default)	
261613	7/27/2022	ERTC NTCRA 1-AOC11	AOC11	12:53	Other	Northeast	5	5	17	80	48.5	43.5	Unloading AOC11 excavation material at SPY.	None (default)	None (default)	Dumping of AOC11 excavation material at SPY.
262002	7/28/2022	ERTC NTCRA 1-AOC11	AOC11	7:23	Using Excavator/Trenching	East	6	10	5	18	11.5	1.5	None	None (default)	None (default)	
262002	7/28/2022	ERTC NTCRA 1-AOC11	AOC11	7:29	Using Excavator/Trenching	East	6	12	32	24	28	16	None	None (default)	None (default)	
262002	7/28/2022	ERTC NTCRA 1-AOC11	AOC11	7:42	Using Excavator/Trenching	East	0	0	68	390	229	229	Stopped/paused excavator until more water could be applied and area thoroughly soaked.	Informed CM of exceedance of 100 µg/m3	Stopped construction activities	
262022	7/26/2022	ERTC NTCRA 1-SPY	SPY	8:59	Driving, Other	Southeast	1	5	8	5	6.5	1.5	None	None (default)	None (default)	GWP dumping load of NTCRA soil in spy
262040	7/27/2022	ERTC NTCRA 1-SPY	SPY	12:10	Driving, Other	Southeast	4	4	5	2	3.5	0	None	None (default)	Other	GWP dumping NTCRA soil
262040	7/27/2022	ERTC NTCRA 1-SPY	SPY	13:31	Other	Southeast	4	4	18	6	12	8	None	None (default)	None (default)	GWP dumping NTCRA load
262529	7/28/2022	ERTC NTCRA 1-AOC11	AOC11	10:14	Using Excavator/Trenching	Northeast	4	3	24	9	16.5	13.5	None	None (default)	None (default)	
262529	7/28/2022	ERTC NTCRA 1-AOC11	AOC11	8:17	Driving, Using Excavator/Trenching	Northeast	1	4	24	21	22.5	18.5	None	None (default)	None (default)	
262529	7/28/2022	ERTC NTCRA 1-AOC11	AOC11	8:35	Using Excavator/Trenching	Northeast	4	4	23	27	25	21	None	None (default)	None (default)	
262529	7/28/2022	ERTC NTCRA 1-AOC11	AOC11	10:14	Using Excavator/Trenching	Northeast	4	10	26	31	28.5	18.5	None	None (default)	None (default)	
265900	8/9/2022	ERTC NTCRA 1-AOC10-3	AOC10-3	12:44		Southeast	9	0	49	7	28	28	None	None (default)	None (default)	
265900	8/9/2022	ERTC NTCRA 1-AOC10-3	AOC10-3	12:09	Using Excavator/Trenching	South	9	11	18	8	13	2	None	None (default)	None (default)	
265900	8/9/2022	ERTC NTCRA 1-AOC10-3	AOC10-3	12:22	Using Excavator/Trenching	Southeast	10	0	20	10	15	15	None	None (default)	None (default)	
265900	8/9/2022	ERTC NTCRA 1-AOC10-3	AOC10-3	11:34	Using Excavator/Trenching	Southeast	9	21	12	23	17.5	0	None	None (default)	None (default)	
265900	8/9/2022	ERTC NTCRA 1-AOC10-3	AOC10-3	12:26	Using Excavator/Trenching	South	9	0	35	29	32	32	None	None (default)	None (default)	
265900	8/9/2022	ERTC NTCRA 1-AOC10-3	AOC10-3	13:23	Using Excavator/Trenching	South	9	0	67	32	49.5	49.5	Informed crew that dust was coming off tracks of excavator and directed more water to that area.	Informed CM that dust levels are approaching 100 µg/m3	Applied more water	
265900	8/9/2022	ERTC NTCRA 1-AOC10-3	AOC10-3	12:56	Using Excavator/Trenching	South	10	0	23	42	32.5	32.5	None	None (default)	None (default)	
265900	8/9/2022	ERTC NTCRA 1-AOC10-3	AOC10-3	11:31	Using Excavator/Trenching	Southeast	9	15	57	179	118	103	Stopped work until more thorough soaking could happen.	Informed CM of exceedance of 100 µg/m3	Stopped construction activities	

Table 2-2. Real-Time Fugitive-Dust Measurements

Survey Id	Survey Date	Daily Summary - ERTC	ERTC	Time	Description of Ground Disturbance Activity	Wind Direction	Wind Speed (mph)	Upwind Dust Value ($\mu\text{g}/\text{m}^3$)	Downwind 1 Dust Value ($\mu\text{g}/\text{m}^3$)	Downwind 2 Dust Value ($\mu\text{g}/\text{m}^3$)	Average Downwind Value ($\mu\text{g}/\text{m}^3$)	Average Downwind Minus Upwind Value ($\mu\text{g}/\text{m}^3$)	Additional Comments on High Dust Levels (Exceeding 20 $\mu\text{g}/\text{m}^3$)	Action Based on Dust Concentration	CM Action (if necessary)	Entry - Other
265908	8/10/2022	ERTC NTCRA 1-AOC10-3	AOC10-3	7:15	Using Excavator/Trenching	East	2	0	13	6	9.5	9.5	None	None (default)	None (default)	
265908	8/10/2022	ERTC NTCRA 1-AOC10-3	AOC10-3	7:20	Using Excavator/Trenching	East	2	0	8	12	10	10	None	None (default)	None (default)	
265908	8/10/2022	ERTC NTCRA 1-AOC10-3	AOC10-3	7:27	Using Excavator/Trenching	East	2	0	18	14	16	16	None	None (default)	None (default)	
265908	8/10/2022	ERTC NTCRA 1-AOC10-3	AOC10-3	6:57	Using Excavator/Trenching	East	2	0	11	18	14.5	14.5	None	None (default)	None (default)	
265908	8/10/2022	ERTC NTCRA 1-AOC10-3	AOC10-3	7:04	Using Excavator/Trenching	East	2	0	27	33	30	30	Instructed to more thorough soak in the excavation area to minimize dust.	Informed CM that dust levels are approaching 100 $\mu\text{g}/\text{m}^3$	Applied more water	
266074	8/10/2022	ERTC NTCRA 1-AOC10-4	AOC10-4	8:57	Using Excavator/Trenching	Southeast	5	0	11	12	11.5	11.5	None	None (default)	None (default)	
266074	8/10/2022	ERTC NTCRA 1-AOC10-4	AOC10-4	8:47	Using Excavator/Trenching	Southeast	5	0	21	34	27.5	27.5	Noted exhaust smell from dump truck.	None (default)	None (default)	
266074	8/10/2022	ERTC NTCRA 1-AOC10-4	AOC10-4	8:45	Using Excavator/Trenching	Southeast	5	0	10	36	23	23	None	None (default)	None (default)	
266074	8/10/2022	ERTC NTCRA 1-AOC10-4	AOC10-4	8:25	Using Excavator/Trenching	Southeast	4	0	66	78	72	72	Beginning of new area and still a bit dry. Instructed careful watering and allow soak in.	Informed CM that dust levels are approaching 100 $\mu\text{g}/\text{m}^3$	Applied more water	
269015	8/16/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	10:07	Backfilling, Grading, Staging	Northwest	6	0	5	6	5.5	5.5	None	None (default)	None (default)	
269015	8/16/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	10:46	Backfilling, Grading, Staging	Northwest	4	0	10	8	9	9	None	None (default)	None (default)	
269015	8/16/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	13:24	Backfilling, Grading, Staging	Southwest	4	6	8	12	10	4	Water is actively being applied.	None (default)	None (default)	
269584	8/19/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:13	Driving, Using Excavator/Trenching	South	6	0	26	12	19	19	None	None (default)	None (default)	
269584	8/19/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:16	Driving, Using Excavator/Trenching	Southeast	6	0	46	23	34.5	34.5	Changed the angle of the water hose to focus in the bucket. Dirt is very hydrophobic.	Other	Applied more water	
269584	8/19/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:09	Driving, Using Excavator/Trenching	South	6	0	10	28	19	19	None	None (default)	None (default)	
269584	8/19/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	7:55	Driving, Using Excavator/Trenching	South	6	0	316	45	180.5	180.5	None	Informed CM of exceedance of 100 $\mu\text{g}/\text{m}^3$	Adjusted pace of excavation	
269584	8/19/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:48	Driving, Using Excavator/Trenching	Southeast	6	0	43	54	48.5	48.5	None	Informed CM that dust levels are approaching 100 $\mu\text{g}/\text{m}^3$	Applied more water	
269584	8/19/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:33	Driving, Using Excavator/Trenching	Southeast	6	0	6	345	175.5	175.5	None	Informed CM of exceedance of 100 $\mu\text{g}/\text{m}^3$	Adjusted pace of excavation	
269584	8/19/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:54	Driving, Using Excavator/Trenching	Southeast	6	0	21	350	185.5	185.5	None	Other	Stopped construction activities	
269609	8/10/2022	ERTC NTCRA 1-SPY	SPY	8:01	Driving, Other	Southeast	2	0	2	0	1	1	None	None (default)	None (default)	GWP offloading NTCRA soil in the spy
269609	8/10/2022	ERTC NTCRA 1-SPY	SPY	8:25	Other	Southeast	2	12	11	13	12	0	None	None (default)	None (default)	GWP offloading NTCRA soil in spy
269968	8/20/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	13:35	Driving, Staging	South	10	0	15	10	12.5	12.5	None	None (default)	None (default)	
269968	8/20/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	7:59	Driving, Staging, Using Excavator/Trenching	South	9	0	15	32	23.5	23.5	None	None (default)	None (default)	
269968	8/20/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	7:37	Driving, Using Excavator/Trenching	South	9	0	15	37	26	26	Encountered fine silty material. Area has been watered and gently mixed with excavator to get water absorbed throughout soil to be loaded into dump truck. Watering and gentle mixing before loading.	None (default)	None (default)	
269968	8/20/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	7:56	Driving, Using Excavator/Trenching	South	9	0	14	50	32	32	None	None (default)	None (default)	
269968	8/20/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:30	Driving, Staging, Using Excavator/Trenching	South	9	0	38	52	45	45	Instructed team to use two water hoses, one for the excavator bucket and one for the treads and road.	Informed CM that dust levels are approaching 100 $\mu\text{g}/\text{m}^3$	Applied more water	
269968	8/20/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	14:49	Driving, Staging, Using Excavator/Trenching	South	8	0	23	75	49	49	None	Informed CM that dust levels are approaching 100 $\mu\text{g}/\text{m}^3$	Applied more water	
269968	8/20/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	15:16	Driving, Staging, Using Excavator/Trenching	South	9	0	50	388	219	219	High dust reading from dropping of last mat at the very end of the day. Activities complete for day.	Informed CM of exceedance of 100 $\mu\text{g}/\text{m}^3$	Stopped construction activities	
269972	8/21/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	9:59	Driving, Using Excavator/Trenching	South	11	0	27	15	21	21	None	None (default)	None (default)	
269972	8/21/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:10	Driving, Using Excavator/Trenching	Southwest	13	0	30	15	22.5	22.5	None	None (default)	None (default)	
269972	8/21/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:29	Driving, Using Excavator/Trenching	South	13	0	54	21	37.5	37.5	Watering and mixing is the technique being employed. Paused excavator to allow more soaking before continuing.	None (default)	None (default)	
269972	8/21/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:32	Driving, Using Excavator/Trenching	South	12	0	11	23	17	17	None	None (default)	None (default)	
269972	8/21/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	10:44	Driving, Using Excavator/Trenching	South	10	0	16	25	20.5	20.5	None	None (default)	None (default)	
269972	8/21/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	10:39	Driving, Using Excavator/Trenching	South	10	0	18	25	21.5	21.5	None	None (default)	None (default)	
269972	8/21/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	13:10	Driving, Using Excavator/Trenching	South	10	0	22	25	23.5	23.5	Directed watering to dry corner of excavation.	None (default)	Applied more water	
269972	8/21/2022	ERTC NTCRA 1-AOC10-2	AOC10-2			South	10	0	35	25	30	30	None	None (default)	None (default)	

Table 2-2. Real-Time Fugitive-Dust Measurements

Survey Id	Survey Date	Daily Summary - ERTC	ERTC	Time	Description of Ground Disturbance Activity	Wind Direction	Wind Speed (mph)	Upwind Dust Value (µg/m³)	Downwind 1 Dust Value (µg/m³)	Downwind 2 Dust Value (µg/m³)	Average Downwind Value (µg/m³)	Average Downwind Minus Upwind Value (µg/m³)	Additional Comments on High Dust Levels (Exceeding 20 µg/m³)	Action Based on Dust Concentration	CM Action (if necessary)	Entry - Other
269972	8/21/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	10:08	Driving, Using Excavator/Trenching	South	11	0	14	27	20.5	20.5	None	None (default)	None (default)	
269972	8/21/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	11:02	Driving, Using Excavator/Trenching	South	10	0	30	27	28.5	28.5	Noted green tinted dirt becoming very prominent as excavation continues.	None (default)	None (default)	
269972	8/21/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:59	Driving, Using Excavator/Trenching	South	12	0	11	28	19.5	19.5	None	None (default)	None (default)	
269972	8/21/2022	ERTC NTCRA 1-AOC10-2	AOC10-2		Driving, Using Excavator/Trenching	South	10	0	42	29	35.5	35.5	Communicated with crew again about the importance of controlling dust.	Informed CM that dust levels are approaching 100 µg/m3	Applied more water	
269972	8/21/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	9:08	Driving, Using Excavator/Trenching	South	12	0	11	30	20.5	20.5	None	None (default)	None (default)	
269972	8/21/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:15	Driving, Using Excavator/Trenching	South	13	0	24	30	27	27	None			
269972	8/21/2022	ERTC NTCRA 1-AOC10-2	AOC10-2			South	11	0	32	30	31	31	None	None (default)	None (default)	
269972	8/21/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	12:56	Driving, Using Excavator/Trenching	South	9	0	22	36	29	29	Due to the obvious green tint in the excavation area I advised additional watering.	Informed CM that dust levels are approaching 100 µg/m3	Applied more water	
269972	8/21/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	13:21	Driving, Using Excavator/Trenching	South	10	0	31	36	33.5	33.5	Levels still good but to head off spikes with the green tinted dirt continued to direct water to the dry corner.	Informed CM that dust levels are approaching 100 µg/m3	Applied more water	
269972	8/21/2022	ERTC NTCRA 1-AOC10-2	AOC10-2		Driving, Using Excavator/Trenching	South	10	0	22	42	32	32	In an abundance of caution due to green tinted soil communicated with crew the importance of keeping dust even lower.	None (default)	Applied more water	
269972	8/21/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	13:38	Driving, Using Excavator/Trenching	South	10	0	70	46	58	58	Increase in temperature late in day is becoming an additional challenge for keeping the soil damp.	Informed CM that dust levels are approaching 100 µg/m3	Applied more water	
269972	8/21/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	14:09	Driving, Using Excavator/Trenching	South	11	0	63	48	55.5	55.5	None	Informed CM that dust levels are approaching 100 µg/m3	Applied more water	
269972	8/21/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	9:55	Driving, Using Excavator/Trenching	South	11	0	32	50	41	41	Directed water to dry spots and paused excavator until area could be soaked more.	None (default)	Applied more water	
269972	8/21/2022	ERTC NTCRA 1-AOC10-2	AOC10-2		Driving, Using Excavator/Trenching	South	11	0	75	56	65.5	65.5	Increase in temperature late in day is becoming an additional challenge for keeping the soil damp.	Informed CM that dust levels are approaching 100 µg/m3	Applied more water	
269972	8/21/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	13:07	Driving, Using Excavator/Trenching	South	10	0	113	88	100.5	100.5	Paused excavation until more soaking could occur.	Informed CM of exceedance of 100 µg/m3	Applied more water	
269972	8/21/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	10:36	Driving, Using Excavator/Trenching	South	10	0	23	128	75.5	75.5	Paused excavator to allow more thorough soaking before continuing.	Informed CM that dust levels are approaching 100 µg/m3	Applied more water	
269972	8/21/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	14:11	Driving, Using Excavator/Trenching	South	11	0	32				None	None (default)	None (default)	
271241	8/23/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	7:58	Driving, Using Excavator/Trenching	Southeast	8	0	26	4	15	15	None	None (default)	None (default)	
271241	8/23/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	10:32	Driving, Using Excavator/Trenching	South	7	0	7	5	6	6	None	None (default)	None (default)	
271241	8/23/2022	ERTC NTCRA 1-AOC10-2	AOC10-2		Driving, Using Excavator/Trenching	South	9		35	8	21.5	21.5	None	None (default)	None (default)	
271241	8/23/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	7:51	Driving, Using Excavator/Trenching	Southeast	8	0	76	8	42	42	More direction to dry spots and side walls causing dust.	Informed CM that dust levels are approaching 100 µg/m3	Applied more water	
271241	8/23/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	10:42	Driving, Using Excavator/Trenching	South	7	0	11	9	10	10	None	None (default)	None (default)	
271241	8/23/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	15:10	Driving, Using Excavator/Trenching	South	9	0	16	12	14	14	None	None (default)	None (default)	
271241	8/23/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:43	Driving, Using Excavator/Trenching	South	9	0	17	12	14.5	14.5	None	None (default)	None (default)	
271241	8/23/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	13:17	Driving, Using Excavator/Trenching	South	9	0	17	12	14.5	14.5	None	None (default)	None (default)	
271241	8/23/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	7:24	Driving, Using Excavator/Trenching	Southeast	7	0	4	15	9.5	9.5	None	None (default)	None (default)	
271241	8/23/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	14:27	Driving, Using Excavator/Trenching	South	10	0	32	18	25	25	None	None (default)	None (default)	
271241	8/23/2022	ERTC NTCRA 1-AOC10-2	AOC10-2		Driving, Using Excavator/Trenching	South	9		26	21	23.5	23.5	None	None (default)	None (default)	
271241	8/23/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	9:19	Driving, Using Excavator/Trenching	South	8	0	13	27	20	20	Encountered more green-colored soils.	None (default)	None (default)	
271241	8/23/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	14:05	Driving, Using Excavator/Trenching	South	8	0	13	27	20	20	None	None (default)	None (default)	
271241	8/23/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	10:52	Driving, Using Excavator/Trenching	Southeast	8	0	29	32	30.5	30.5	None	Informed CM that dust levels are approaching 100 µg/m3	Applied more water	
271241	8/23/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	9:33	Driving, Using Excavator/Trenching	South	8	0	8	46	27	27	None	None (default)	None (default)	

Table 2-2. Real-Time Fugitive-Dust Measurements

Survey Id	Survey Date	Daily Summary - ERTC	ERTC	Time	Description of Ground Disturbance Activity	Wind Direction	Wind Speed (mph)	Upwind Dust Value (µg/m³)	Downwind 1 Dust Value (µg/m³)	Downwind 2 Dust Value (µg/m³)	Average Downwind Value (µg/m³)	Average Downwind Minus Upwind Value (µg/m³)	Additional Comments on High Dust Levels (Exceeding 20 µg/m³)	Action Based on Dust Concentration	CM Action (if necessary)	Entry - Other
271241	8/23/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	7:19	Driving, Using Excavator/Trenching	South	7	0	8	65	36.5	36.5	None	None (default)	None (default)	
271241	8/23/2022	ERTC NTCRA 1-AOC10-2	AOC10-2		Driving, Using Excavator/Trenching	Southeast	7		22	195	108.5	108.5	Instructed team to pause excavation and directed water to dry spots causing the problem.	Informed CM of exceedance of 100 µg/m3	Applied more water	
271241	8/23/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:10	Driving, Using Excavator/Trenching	Southeast	9	0	33				None	None (default)	None (default)	
271243	8/24/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:23	Driving, Using Excavator/Trenching	Southeast	6	0	17	8	12.5	12.5	None	None (default)	None (default)	
271243	8/24/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	7:24	Driving, Using Excavator/Trenching	Southeast	4	0	22	8	15	15	None	None (default)	None (default)	
271243	8/24/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	7:47	Driving, Using Excavator/Trenching	South	5	0	75	8	41.5	41.5	Paused excavation for now to allow time for water to soak into soil.	Informed CM that dust levels are approaching 100 µg/m3	Applied more water	
271243	8/24/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	14:12	Driving, Using Excavator/Trenching	South	10	0	7	10	8.5	8.5	None	None (default)	None (default)	
271243	8/24/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	9:10	Driving, Using Excavator/Trenching	Southeast	10	0	14	12	13	13	None	None (default)	None (default)	
271243	8/24/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:45	Driving, Using Excavator/Trenching	Southeast	10	0	25	16	20.5	20.5	None	None (default)	None (default)	
271243	8/24/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	7:29	Driving, Using Excavator/Trenching	Southeast	4	0	34	17	25.5	25.5	None	None (default)	None (default)	
271243	8/24/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:21	Driving, Using Excavator/Trenching	Southeast	6	0	12	36	24	24	None	None (default)	None (default)	
271243	8/24/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:04	Driving, Using Excavator/Trenching	South	5	0	19	41	30	30	Directed to dry spots causing the problem.	Informed CM that dust levels are approaching 100 µg/m3	Applied more water	
274864	8/23/2022	ERTC NTCRA 1-SPY	SPY	7:47	Driving, Other	South	8	4	6	2	4	0	None	None (default)	None (default)	GWP offloading aoc10-2 soil
274864	8/23/2022	ERTC NTCRA 1-SPY	SPY	13:32	Driving, Other	South	7	3	6	4	5	2	None	None (default)	None (default)	GWP off loading NTCRA soil
274864	8/23/2022	ERTC NTCRA 1-SPY	SPY	7:30	Driving, Other	South	7	3	11	4	7.5	4.5	None	None (default)	None (default)	GWP offloading AOC10-2 soil
274864	8/23/2022	ERTC NTCRA 1-SPY	SPY	13:28	Driving, Other	South	6	4	7	8	7.5	3.5	None	None (default)	None (default)	GWP off loading NTCRA soil
274889	8/24/2022	ERTC NTCRA 1-SPY	SPY	7:50	Driving, Other	South	4	0	3	2	2.5	2.5	None	None (default)	None (default)	GWP offloading soil
274889	8/24/2022	ERTC NTCRA 1-SPY	SPY	7:39	Driving, Other	South	4	4	2	8	5	1	None	None (default)	None (default)	GWP offloading soil
274899	8/24/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	11:15	Using Excavator/Trenching	Northeast	5	0	8	19	13.5	13.5	Could not get the upwind. Upwind values are arbitrary so that form can be saved.	None (default)	None (default)	
274899	8/24/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	10:29	Using Excavator/Trenching	Northeast	4	0	13	21	17	17	Can not get upwind to take upwind. Upwind values are arbitrary so that form can be saved.	None (default)	None (default)	
279172	9/14/2022	ERTC NTCRA 1-SPY	SPY	7:50	Driving, Staging	Northeast	6	0	0	2	1	1	None	None (default)	None (default)	
279172	9/14/2022	ERTC NTCRA 1-SPY	SPY	13:22	Driving, Other, Using Excavator/Trenching	Southeast	5	0	7	3	5	5	None	None (default)	None (default)	GWP off Loading NTCRA soil
279172	9/14/2022	ERTC NTCRA 1-SPY	SPY	13:02	Driving, Other, Staging	Southeast	4	0	13	3	8	8	None	None (default)	None (default)	GWP offloading NTCRA soil
279172	9/14/2022	ERTC NTCRA 1-SPY	SPY	10:30	Driving, Other, Staging	Southeast	5	4	22	18	20	16	None	None (default)	None (default)	GWP off loading NTCRA soil
279181	9/15/2022	ERTC NTCRA 1-SPY	SPY	11:37	Driving, Staging, Using Excavator/Trenching	Southeast	7	8	33	9	21	13	None	None (default)	None (default)	
280066	9/14/2022	ERTC NTCRA 1-AOC11	AOC11	7:56	Driving, Using Excavator/Trenching	Southeast	9		8	13	10.5	10.5	None	None (default)	None (default)	
280066	9/14/2022	ERTC NTCRA 1-AOC11	AOC11	7:26	Driving, Using Excavator/Trenching	East	11	8	31	15	23	15	Whole site is still damp from on and off rains over last few days.	None (default)	None (default)	
280066	9/14/2022	ERTC NTCRA 1-AOC11	AOC11	9:00	Driving, Using Excavator/Trenching	Southeast	12		24	25	24.5	24.5	None	None (default)	None (default)	
280070	9/15/2022	ERTC NTCRA 1-AOC11	AOC11	7:48	Driving, Using Excavator/Trenching	Southeast	2		13	10	11.5	11.5	Whole site is still damp from on and off rains over last few days.	None (default)	None (default)	
280070	9/15/2022	ERTC NTCRA 1-AOC11	AOC11	10:36	Driving, Using Excavator/Trenching	Southeast	3		26	22	24	24	None	None (default)	None (default)	
280070	9/15/2022	ERTC NTCRA 1-AOC11	AOC11	9:50	Driving, Using Excavator/Trenching	Southeast	3		11	28	19.5	19.5	None	None (default)	None (default)	
281943	9/21/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	10:50	Driving, Using Excavator/Trenching	South	17		54	12	33	33	None	None (default)	Applied more water	
281943	9/21/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:21	Driving, Using Excavator/Trenching	Southeast	15		26	18	22	22	A bit windy today.	None (default)	None (default)	
281943	9/21/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	9:44	Driving, Using Excavator/Trenching	Southeast	17		43	28	35.5	35.5	Slowing down and "mixing" seems to be helping and numbers are dropping.	None (default)	Applied more water	
281943	9/21/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	10:49	Driving, Using Excavator/Trenching	Southeast	17		19	40	29.5	29.5	None	None (default)	None (default)	
281943	9/21/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	11:19	Driving, Using Excavator/Trenching	South	14		8	48	28	28	None	None (default)	None (default)	
281943	9/21/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:41	Driving, Using Excavator/Trenching	Southeast	17		50	82	66	66	Sidewall excavations seem to be more difficult to get water to soak in to. Instructed crew to slow down and then "mix" the soil removed from the wall with water before loading into truck.	Informed CM that dust levels are approaching 100 µg/m3	Applied more water	

Table 2-2. Real-Time Fugitive-Dust Measurements

Survey Id	Survey Date	Daily Summary - ERTC	ERTC	Time	Description of Ground Disturbance Activity	Wind Direction	Wind Speed (mph)	Upwind Dust Value ($\mu\text{g}/\text{m}^3$)	Downwind 1 Dust Value ($\mu\text{g}/\text{m}^3$)	Downwind 2 Dust Value ($\mu\text{g}/\text{m}^3$)	Average Downwind Value ($\mu\text{g}/\text{m}^3$)	Average Downwind Minus Upwind Value ($\mu\text{g}/\text{m}^3$)	Additional Comments on High Dust Levels (Exceeding 20 $\mu\text{g}/\text{m}^3$)	Action Based on Dust Concentration	CM Action (if necessary)	Entry - Other
281943	9/21/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	11:26	Driving, Using Excavator/Trenching	South	14		13				None	None (default)	None (default)	
282225	9/22/2022	ERTC NTCRA 1-SPY	SPY	13:27	Driving, Staging, Using Excavator/Trenching	Southeast	4	0	12	5	8.5	8.5	None	None (default)	None (default)	
282225	9/22/2022	ERTC NTCRA 1-SPY	SPY	8:38	Driving, Staging, Using Excavator/Trenching	Southeast	1	0	46	30	38	38	None	None (default)	None (default)	
282225	9/22/2022	ERTC NTCRA 1-SPY	SPY	8:05	Driving, Staging, Using Excavator/Trenching	Southeast	2	0	42	37	39.5	39.5	None	None (default)	None (default)	
282225	9/22/2022	ERTC NTCRA 1-SPY	SPY	8:05	Driving, Staging, Using Excavator/Trenching	Southeast	2	0	35	55	45	45	None	None (default)	None (default)	
282241	9/23/2022	ERTC NTCRA 1-SPY	SPY	9:11	Driving, Staging, Using Excavator/Trenching	Southeast	3	3	4	0	2	0	None	None (default)	None (default)	
282265	9/26/2022	ERTC NTCRA 1-SPY	SPY	8:53	Driving, Staging	Northwest	1	0	5	6	5.5	5.5	None	None (default)	None (default)	
282265	9/26/2022	ERTC NTCRA 1-SPY	SPY	13:50	Driving, Staging	Southeast	3	4	12	6	9	5	None	None (default)	None (default)	
282265	9/26/2022	ERTC NTCRA 1-SPY	SPY	8:44	Staging, Using Excavator/Trenching	Northwest	1	4	4	7	5.5	1.5	None	None (default)	None (default)	
282265	9/26/2022	ERTC NTCRA 1-SPY	SPY	13:35	Driving, Staging	South	1	0	9	10	9.5	9.5	None	None (default)	None (default)	
282276	9/27/2022	ERTC NTCRA 1-SPY	SPY	8:45	Driving, Staging	Northwest	1	0	3	3	3	3	None	None (default)	None (default)	
282276	9/27/2022	ERTC NTCRA 1-SPY	SPY	8:52	Driving, Staging	Northwest	1	0	2	5	3.5	3.5	None	None (default)	None (default)	
283080	9/22/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	13:05	Driving, Using Excavator/Trenching	Southwest	8		39	4	21.5	21.5	None	None (default)	None (default)	
283080	9/22/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	10:23	Driving, Using Excavator/Trenching	South	5		13	7	10	10	None	None (default)	None (default)	
283080	9/22/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:34	Driving, Using Excavator/Trenching				64	8	36	36	More sidewall work.	None (default)	Applied more water	
283080	9/22/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	13:24	Driving, Using Excavator/Trenching	Southwest	7		3	10	6.5	6.5	None	None (default)	None (default)	
283080	9/22/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	13:40	Driving, Using Excavator/Trenching	Southwest	8		25	13	19	19	None	None (default)	None (default)	
283080	9/22/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	10:34	Driving, Using Excavator/Trenching	South	5		10	14	12	12	None	None (default)	None (default)	
283080	9/22/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:21	Driving, Using Excavator/Trenching	Northwest	4		16	14	15	15	None	None (default)	None (default)	
283080	9/22/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	12:37	Driving, Using Excavator/Trenching	Southwest	6		12	15	13.5	13.5	None	None (default)	None (default)	
283080	9/22/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:32	Driving, Using Excavator/Trenching	Northwest	4		47	16	31.5	31.5	More sidewall work.	None (default)	Applied more water	
283080	9/22/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	12:57	Driving, Using Excavator/Trenching	South	6		32	17	24.5	24.5	None	None (default)	None (default)	
283080	9/22/2022	ERTC NTCRA 1-AOC10-2	AOC10-2		Driving, Using Excavator/Trenching	Northwest	4		42	17	29.5	29.5	None	None (default)	Applied more water	
283080	9/22/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:07	Driving, Using Excavator/Trenching	Northwest	4		15	20	17.5	17.5	None	None (default)	None (default)	
283080	9/22/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	13:58	Driving, Using Excavator/Trenching	Southwest	8		45	20	32.5	32.5	None	None (default)	None (default)	
283080	9/22/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:52	Driving, Using Excavator/Trenching	Northwest	4		153	26	89.5	89.5	Very corner of excavation sides extremely dry and difficult to get water onto. Slowed down to slow soaking.	Informed CM that dust levels are approaching 100 $\mu\text{g}/\text{m}^3$	Applied more water	
283080	9/22/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:19	Driving, Using Excavator/Trenching	Northwest	4		27	30	28.5	28.5	Sidewall very dry and difficult to get water to soak. Crew slowed down without me even having to ask.	None (default)	None (default)	
283107	9/23/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	12:55	Driving, Using Excavator/Trenching	Northwest	3		20	9	14.5	14.5	None	None (default)	None (default)	
283107	9/23/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	10:51	Driving, Using Excavator/Trenching	Northwest	6		35	12	23.5	23.5	Area is fairly damp before work began thanks to grass growing in area, but is still very fine and silty. Jacob's excavation oversight stepped up to man a hose.	None (default)	None (default)	
283107	9/23/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:37	Driving, Using Excavator/Trenching	Southwest	3		13	15	14	14	None	None (default)	None (default)	
283107	9/23/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	9:26	Driving, Using Excavator/Trenching	Northwest	6		21	17	19	19	None	None (default)	None (default)	
283107	9/23/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:09	Driving, Using Excavator/Trenching	Southwest	3		15	23	19	19	None	None (default)	None (default)	
283110	9/24/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:08	Driving, Using Excavator/Trenching	West	1		10	8	9	9	None	None (default)	None (default)	
283110	9/24/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	9:20	Driving, Using Excavator/Trenching	Northwest	7		15	9	12	12	None	None (default)	None (default)	

Table 2-2. Real-Time Fugitive-Dust Measurements

Survey Id	Survey Date	Daily Summary - ERTC	ERTC	Time	Description of Ground Disturbance Activity	Wind Direction	Wind Speed (mph)	Upwind Dust Value (µg/m³)	Downwind 1 Dust Value (µg/m³)	Downwind 2 Dust Value (µg/m³)	Average Downwind Value (µg/m³)	Average Downwind Minus Upwind Value (µg/m³)	Additional Comments on High Dust Levels (Exceeding 20 µg/m³)	Action Based on Dust Concentration	CM Action (if necessary)	Entry - Other
283110	9/24/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	12:49	Driving, Using Excavator/Trenching	Northwest	9		14	10	12	12	None	None (default)	None (default)	
283110	9/24/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	9:01	Driving, Using Excavator/Trenching	West	4		23	10	16.5	16.5	None	None (default)	None (default)	
283110	9/24/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	7:08	Driving, Using Excavator/Trenching	West	1		19	11	15	15	None	None (default)	None (default)	
283110	9/24/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	12:29	Driving, Using Excavator/Trenching	Northwest	9		23	18	20.5	20.5	Moved to a new area in the excavation for the day. Water being applied.	None (default)	None (default)	
283110	9/24/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	9:52	Driving, Using Excavator/Trenching	Northwest	7		29	55	42	42	Hit a dry corner. Instructed crew to slow down and "stir" in the water.	None (default)	Applied more water	
283117	9/25/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	10:15	Driving, Using Excavator/Trenching	Northwest	10		10	8	9	9	None	None (default)	None (default)	
283117	9/25/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	12:14	Driving, Using Excavator/Trenching	Northwest	10		5	10	7.5	7.5	Crew really understands what needs to happen now for this site and is doing an amazing job soaking the sidewalls and keeping the access roads watered. And when they hit a dry spot they are pausing on their own for more water without my intervention.	None (default)	None (default)	
283117	9/25/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:57	Driving, Using Excavator/Trenching	Northwest	6		9	15	12	12	None	None (default)	None (default)	
283117	9/25/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	7:57	Driving, Using Excavator/Trenching	Northwest	4		13	16	14.5	14.5	None	None (default)	None (default)	
283117	9/25/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:58	Driving, Using Excavator/Trenching	Northwest	6		16	17	16.5	16.5	None	None (default)	None (default)	
283117	9/25/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	9:14	Driving, Using Excavator/Trenching	Northwest	6		31	17	24	24	More sidewall work.	None (default)	Applied more water	
283117	9/25/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	7:48	Driving, Using Excavator/Trenching	Northwest	4		16	33	24.5	24.5	More sidewall work for step out excavation. Paused to soak the wall more.	None (default)	Applied more water	
283117	9/25/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:59	Driving, Using Excavator/Trenching	Northwest	6		67	85	76	76	Crew into another very dry sidewall corner. Paused to soak and "stir".	Informed CM that dust levels are approaching 100 µg/m3	Applied more water	
283120	9/26/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	14:07	Driving, Using Excavator/Trenching	West	5		4	7	5.5	5.5	None	None (default)	None (default)	
283120	9/26/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	11:27	Driving, Using Excavator/Trenching	Northwest	7		10	8	9	9	None	None (default)	None (default)	
283120	9/26/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	9:22	Driving, Using Excavator/Trenching	Northwest	7		8	11	9.5	9.5	None	None (default)	None (default)	
283120	9/26/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	14:26	Driving, Using Excavator/Trenching	Northwest	5		9	12	10.5	10.5	None	None (default)	None (default)	
283120	9/26/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	10:18	Driving, Using Excavator/Trenching	Northwest	7		22	18	20	20	None	None (default)	None (default)	
283335	9/27/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	13:20	Driving, Using Excavator/Trenching	South	6		5	4	4.5	4.5	None	None (default)	None (default)	
283335	9/27/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	12:45	Driving, Using Excavator/Trenching	South	6		3	9	6	6	None	None (default)	None (default)	
283335	9/27/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	7:26	Driving, Using Excavator/Trenching	Southeast	3		8	9	8.5	8.5	None	None (default)	None (default)	
283335	9/27/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:28	Driving, Using Excavator/Trenching	Northeast	3		12	9	10.5	10.5	None	None (default)	None (default)	
283335	9/27/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	15:03	Driving, Using Excavator/Trenching	South	6		12	10	11	11	None	None (default)	None (default)	
283335	9/27/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	10:22	Driving, Using Excavator/Trenching	Northwest	3		15	12	13.5	13.5	None	None (default)	None (default)	
283335	9/27/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	11:10	Driving, Using Excavator/Trenching	Northwest	3		11	15	13	13	None	None (default)	None (default)	
283335	9/27/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	10:01	Driving, Using Excavator/Trenching	Northwest	3		7	16	11.5	11.5	None	None (default)	None (default)	
283335	9/27/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	9:27	Driving, Using Excavator/Trenching	Northwest	3		4	27	15.5	15.5	None	None (default)	None (default)	
283338	9/28/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	13:37	Driving, Using Excavator/Trenching	South	10		2	4	3	3	None	None (default)	None (default)	
283338	9/28/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	11:21	Driving, Using Excavator/Trenching	Northeast	5		9	8	8.5	8.5	None	None (default)	None (default)	
283338	9/28/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	13:51	Driving, Using Excavator/Trenching	South	11		10	8	9	9	None	None (default)	None (default)	
283338	9/28/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	10:38	Driving, Using Excavator/Trenching	Northeast	5		9	10	9.5	9.5	None	None (default)	None (default)	

Table 2-2. Real-Time Fugitive-Dust Measurements

Survey Id	Survey Date	Daily Summary - ERTC	ERTC	Time	Description of Ground Disturbance Activity	Wind Direction	Wind Speed (mph)	Upwind Dust Value (µg/m³)	Downwind 1 Dust Value (µg/m³)	Downwind 2 Dust Value (µg/m³)	Average Downwind Value (µg/m³)	Average Downwind Minus Upwind Value (µg/m³)	Additional Comments on High Dust Levels (Exceeding 20 µg/m³)	Action Based on Dust Concentration	CM Action (if necessary)	Entry - Other
283338	9/28/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	14:02	Driving, Using Excavator/Trenching	South	11		14	12	13	13	None	None (default)	None (default)	
283338	9/28/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	10:08	Driving, Using Excavator/Trenching	Northeast	4		15	13	14	14	None	None (default)	None (default)	
283338	9/28/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	13:26	Driving, Using Excavator/Trenching	South	10		4	21	12.5	12.5	Wind picking up a bit.	None (default)	None (default)	
283338	9/28/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	9:09	Driving, Using Excavator/Trenching	Northeast	4		12	27	19.5	19.5	None	None (default)	None (default)	
283341	9/29/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	7:50	Driving, Using Excavator/Trenching	Southeast	5		6	3	4.5	4.5	None	None (default)	None (default)	
283341	9/29/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	10:45	Driving, Using Excavator/Trenching	Southeast	6		2	5	3.5	3.5	None	None (default)	None (default)	
283341	9/29/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	13:00	Driving, Using Excavator/Trenching	Southeast	8		8	5	6.5	6.5	None	None (default)	None (default)	
283341	9/29/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:29	Driving, Using Excavator/Trenching	Southeast	6		32	7	19.5	19.5	None	None (default)	None (default)	
283341	9/29/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	14:13	Driving, Using Excavator/Trenching	South	10		3	8	5.5	5.5	None	None (default)	None (default)	
283341	9/29/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:39	Driving, Using Excavator/Trenching	Southeast	6		12	9	10.5	10.5	None	None (default)	None (default)	
283341	9/29/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	9:13	Driving, Using Excavator/Trenching	Southeast	6		4	12	8	8	None	None (default)	None (default)	
283341	9/29/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	14:05	Driving, Using Excavator/Trenching	South	10		7	12	9.5	9.5	None	None (default)	None (default)	
283341	9/29/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	11:01	Driving, Using Excavator/Trenching	Southeast	6		51	16	33.5	33.5	Again, crew added more water before I prompted. They are very attentive and doing a great job staying on top dust control.	None (default)	None (default)	
283341	9/29/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	12:37	Driving, Using Excavator/Trenching	Southeast	8		53	20	36.5	36.5	Crew applied more water before I even requested on the access road that caused a bit of dust.	None (default)	Applied more water	
283818	9/28/2022	ERTC NTCRA 1-SPY	SPY	12:46	Driving, Staging, Using Excavator/Trenching	Southeast	2	0	3	2	2.5	2.5	None	None (default)	None (default)	
283818	9/28/2022	ERTC NTCRA 1-SPY	SPY	12:55	Using Excavator/Trenching	Southeast	2	8	8	5	6.5	0	None	None (default)	None (default)	
283824	9/29/2022	ERTC NTCRA 1-SPY	SPY	9:07	Driving, Staging, Using Excavator/Trenching	Southeast	6	4	6	5	5.5	1.5	None	None (default)	None (default)	
283824	9/29/2022	ERTC NTCRA 1-SPY	SPY	9:26	Driving, Staging, Using Excavator/Trenching	Southeast	6	0	3	7	5	5	None	None (default)	None (default)	
283824	9/29/2022	ERTC NTCRA 1-SPY	SPY	9:38	Driving, Staging, Using Excavator/Trenching	Southeast	8	3	8	10	9	6	None	None (default)	None (default)	
285761	10/4/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	13:24	Driving, Using Excavator/Trenching	Northwest	5		26	3	14.5	14.5	None	None (default)	None (default)	
285761	10/4/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	10:16	Driving, Using Excavator/Trenching	West	3		7	5	6	6	None	None (default)	None (default)	
285761	10/4/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	12:53	Driving, Using Excavator/Trenching	Northwest	5		17	6	11.5	11.5	None	None (default)	None (default)	
285761	10/4/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	10:58	Driving, Using Excavator/Trenching	West	2		28	8	18	18	None	None (default)	None (default)	
285761	10/4/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	11:15	Driving, Using Excavator/Trenching	West	2		13	9	11	11	None	None (default)	None (default)	
285761	10/4/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	9:40	Driving, Using Excavator/Trenching	Northwest	3		5	13	9	9	None	None (default)	None (default)	
285761	10/4/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	10:38	Driving, Using Excavator/Trenching	West	2		3	22	12.5	12.5	None	None (default)	None (default)	
285761	10/4/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	10:52	Driving, Using Excavator/Trenching	West	2		17	27	22	22	None	None (default)	Applied more water	
285761	10/4/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	12:39	Driving, Using Excavator/Trenching	Northwest	6		14	41	27.5	27.5	Water being continuously applied.	None (default)	Applied more water	
285761	10/4/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	12:47	Driving, Using Excavator/Trenching	Northwest	6		17	77	47	47	Water still being continuously applied.	Informed CM that dust levels are approaching 100 µg/m3	Applied more water	
287127	10/4/2022	ERTC NTCRA 1-SPY	SPY	10:36	Driving, Staging, Using Excavator/Trenching	Northwest	3	0	10	13	11.5	11.5	None	None (default)	None (default)	
287127	10/4/2022	ERTC NTCRA 1-SPY	SPY	10:39	Driving, Staging, Using Excavator/Trenching	Northwest	3	0	12	13	12.5	12.5	None	None (default)	None (default)	
287127	10/4/2022	ERTC NTCRA 1-SPY	SPY	10:52	Driving, Staging, Using Excavator/Trenching	Northwest	3	0	15	13	14	14	None	None (default)	None (default)	
287127	10/4/2022	ERTC NTCRA 1-SPY	SPY	8:56	Driving, Staging, Using Excavator/Trenching	Northwest	1	4	8	21	14.5	10.5	None	None (default)	None (default)	

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Survey Id	Survey Date	Daily Summary - ERTC	ERTC	Time	Description of Ground Disturbance Activity	Wind Direction	Wind Speed (mph)	Upwind Dust Value (µg/m³)	Downwind 1 Dust Value (µg/m³)	Downwind 2 Dust Value (µg/m³)	Average Downwind Value (µg/m³)	Average Downwind Minus Upwind Value (µg/m³)	Additional Comments on High Dust Levels (Exceeding 20 µg/m³)	Action Based on Dust Concentration	CM Action (if necessary)	Entry - Other
287135	10/5/2022	ERTC NTCRA 1-SPY	SPY	9:03	Driving, Staging, Using Excavator/Trenching	Northwest	1	0	3	4	3.5	3.5	None	None (default)	None (default)	
287135	10/5/2022	ERTC NTCRA 1-SPY	SPY	9:27	Driving, Staging, Using Excavator/Trenching	Northwest	1	0	8	4	6	6	None	None (default)	None (default)	
287135	10/5/2022	ERTC NTCRA 1-SPY	SPY	9:39	Driving, Staging, Using Excavator/Trenching	Northwest	1	0	7	8	7.5	7.5	None	None (default)	None (default)	
287159	10/7/2022	ERTC NTCRA 1-SPY	SPY	11:13	Driving, Staging, Using Excavator/Trenching	North	1	0	16	7	11.5	11.5	None	None (default)	None (default)	
287159	10/7/2022	ERTC NTCRA 1-SPY	SPY	11:07	Driving, Staging, Using Excavator/Trenching	Northeast	1	0	8	10	9	9	None	None (default)	None (default)	
287159	10/7/2022	ERTC NTCRA 1-SPY	SPY	11:01	Driving, Staging, Using Excavator/Trenching	North	1	0	18	15	16.5	16.5	None	None (default)	None (default)	
287167	10/9/2022	ERTC NTCRA 1-SPY	SPY	13:40	Driving, Using Excavator/Trenching	Southeast	1	3	5	4	4.5	1.5	None	None (default)	None (default)	
287167	10/9/2022	ERTC NTCRA 1-SPY	SPY	13:29	Driving, Using Excavator/Trenching	Southeast	1	0	8	5	6.5	6.5	None	None (default)	None (default)	
287167	10/9/2022	ERTC NTCRA 1-SPY	SPY	13:53	Driving, Using Excavator/Trenching	South	1	0	13	7	10	10	None	None (default)	None (default)	
287167	10/9/2022	ERTC NTCRA 1-SPY	SPY	13:49	Driving, Using Excavator/Trenching	South	2	2	8	10	9	7	None	None (default)	None (default)	
287167	10/9/2022	ERTC NTCRA 1-SPY	SPY	14:02	Driving, Using Excavator/Trenching	Southeast	1	0	10	10	10	10	None	None (default)	None (default)	
287174	10/10/2022	ERTC NTCRA 1-SPY	SPY	13:15	Driving, Staging, Using Excavator/Trenching	Southeast	2	0	8	8	8	8	None	None (default)	None (default)	
287174	10/10/2022	ERTC NTCRA 1-SPY	SPY	12:48	Driving, Staging, Using Excavator/Trenching	Southeast	1	0	16	10	13	13	None	None (default)	None (default)	
287174	10/10/2022	ERTC NTCRA 1-SPY	SPY	12:56	Driving, Staging, Using Excavator/Trenching	South	1	0	7	16	11.5	11.5	None	None (default)	None (default)	
287174	10/10/2022	ERTC NTCRA 1-SPY	SPY	14:57		Southeast							None			
287193	10/12/2022	ERTC NTCRA 1-SPY	SPY	14:10	Driving, Staging, Using Excavator/Trenching	West	1	0	7	0	3.5	3.5	None	None (default)	None (default)	
287193	10/12/2022	ERTC NTCRA 1-SPY	SPY	14:19	Driving, Staging, Using Excavator/Trenching	West	2	0	5	3	4	4	None	None (default)	None (default)	
287193	10/12/2022	ERTC NTCRA 1-SPY	SPY	14:25	Driving, Staging, Using Excavator/Trenching	West	1	0	6	3	4.5	4.5	None	None (default)	None (default)	
287193	10/12/2022	ERTC NTCRA 1-SPY	SPY	13:53	Driving, Staging, Using Excavator/Trenching	West	1	0	12	5	8.5	8.5	None	None (default)	None (default)	
287193	10/12/2022	ERTC NTCRA 1-SPY	SPY	13:40	Driving, Staging, Using Excavator/Trenching	West	1	0	0	27	13.5	13.5	None	None (default)	None (default)	
287365	10/5/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:12	Driving, Using Excavator/Trenching	North	3		28	7	17.5	17.5	None	None (default)	None (default)	
287365	10/5/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	13:29	Driving, Using Excavator/Trenching	Northwest	5		15	9	12	12	None	None (default)	None (default)	
287365	10/5/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	14:58	Driving, Using Excavator/Trenching	Northwest	5		12	11	11.5	11.5	None	None (default)	None (default)	
287365	10/5/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	13:03	Driving, Using Excavator/Trenching	Northwest	1		19	13	16	16	None	None (default)	None (default)	
287365	10/5/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	14:14	Driving, Using Excavator/Trenching	Northwest	5		8	23	15.5	15.5	None	None (default)	None (default)	
287365	10/5/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	7:41	Driving, Using Excavator/Trenching	Northwest	3		13	23	18	18	None	None (default)	None (default)	
287365	10/5/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	9:28	Driving, Using Excavator/Trenching	North	2		42	38	40	40	More sidewall step outs.	Informed CM that dust levels are approaching 100 µg/m3	Applied more water	
287365	10/5/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	11:09	Driving, Using Excavator/Trenching	Northwest	2		31	42	36.5	36.5	Sidewall step out is very dry. Crew noticed and slowed down to soak area more.	None (default)	Applied more water	
287365	10/5/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:44	Driving, Using Excavator/Trenching	North	2		32	57	44.5	44.5	Sidewall step out work again.	Informed CM that dust levels are approaching 100 µg/m3	Applied more water	
287365	10/5/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	10:29	Driving, Using Excavator/Trenching	Northwest	2		58	73	65.5	65.5	Some final sidewall work being completed. Slowed down the crew for a more thorough soaking.	Informed CM that dust levels are approaching 100 µg/m3	Applied more water	
287368	10/7/2022	ERTC NTCRA 2-SWMU1	SWMU1	13:13	Driving, Using Excavator/Trenching	Southwest	4	0	26	6	16	16	None	None (default)	None (default)	
287368	10/7/2022	ERTC NTCRA 2-SWMU1	SWMU1	14:14	Driving, Using Excavator/Trenching	Southwest	4	0	12	10	11	11	None	None (default)	None (default)	
287368	10/7/2022	ERTC NTCRA 2-SWMU1	SWMU1	8:47	Backfilling, Driving, Grading, Staging, Using Excavator/Trenching	Northeast	1	0	10	16	13	13	None	None (default)	None (default)	

Table 2-2. Real-Time Fugitive-Dust Measurements

Survey Id	Survey Date	Daily Summary - ERTC	ERTC	Time	Description of Ground Disturbance Activity	Wind Direction	Wind Speed (mph)	Upwind Dust Value (µg/m³)	Downwind 1 Dust Value (µg/m³)	Downwind 2 Dust Value (µg/m³)	Average Downwind Value (µg/m³)	Average Downwind Minus Upwind Value (µg/m³)	Additional Comments on High Dust Levels (Exceeding 20 µg/m³)	Action Based on Dust Concentration	CM Action (if necessary)	Entry - Other
287368	10/7/2022	ERTC NTCRA 2-SWMU1	SWMU1	9:19	Driving, Using Excavator/Trenching	Northeast	2	0	67	17	42	42	Removal of a bush kicked up even more dry dirt. Crew paused themselves to soak the area more before continuing.	Informed CM that dust levels are approaching 100 µg/m3	Applied more water	
287368	10/7/2022	ERTC NTCRA 2-SWMU1	SWMU1	10:21	Driving, Using Excavator/Trenching	Northwest	2	0	17	35	26	26	Still getting dry patches as area is being watered.	None (default)	Applied more water	
287368	10/7/2022	ERTC NTCRA 2-SWMU1	SWMU1	9:05	Driving, Using Excavator/Trenching	Northeast	1	0	11	67	39	39	Very beginning of excavation. Paused to soak more before continuing	None (default)	Applied more water	
287368	10/7/2022	ERTC NTCRA 2-SWMU1	SWMU1	8:32	Backfilling, Driving, Grading, Staging, Using Excavator/Trenching	Northeast	1	0	26	230	128	128	Creation of turn around spot for trucks. Paused work to apply more water before continuing.	Informed CM of exceedance of 100 µg/m3	Applied more water	
287371	10/8/2022	ERTC NTCRA 2-SWMU1	SWMU1	14:32	Driving, Using Excavator/Trenching	Southwest	4	0	8	3	5.5	5.5	This area has been significantly easier for dust control than East Ravine locations. Crew knows the routine well at this point and material being excavated is not nearly as fine and hydrophobic.	None (default)	None (default)	
287371	10/8/2022	ERTC NTCRA 2-SWMU1	SWMU1	12:47	Driving, Using Excavator/Trenching	Southwest	4	0	15	3	9	9	None	None (default)	None (default)	
287371	10/8/2022	ERTC NTCRA 2-SWMU1	SWMU1	9:56	Driving, Using Excavator/Trenching	South	4	0	11	4	7.5	7.5	None	None (default)	None (default)	
287371	10/8/2022	ERTC NTCRA 2-SWMU1	SWMU1	14:01	Driving, Using Excavator/Trenching	Southwest	4	0	15	5	10	10	None	None (default)	None (default)	
287371	10/8/2022	ERTC NTCRA 2-SWMU1	SWMU1	7:44	Driving, Using Excavator/Trenching	Southeast	1	0	3	7	5	5	None	None (default)	None (default)	
287371	10/8/2022	ERTC NTCRA 2-SWMU1	SWMU1	13:02	Driving, Using Excavator/Trenching	Southwest	4	0	12	11	11.5	11.5	None	None (default)	None (default)	
287383	10/9/2022	ERTC NTCRA 2-SWMU1	SWMU1	7:37	Driving, Using Excavator/Trenching	Southeast	4	0	8	3	5.5	5.5	None	None (default)	None (default)	
287383	10/9/2022	ERTC NTCRA 2-SWMU1	SWMU1	9:15	Driving, Using Excavator/Trenching	Southeast	1	0	39	4	21.5	21.5	Cleaning up of sidewall which always has a harder time getting water to soak in to it. Crew adjusted water to focus on sidewall.	None (default)	Applied more water	
287383	10/9/2022	ERTC NTCRA 2-SWMU1	SWMU1	10:33	Driving, Using Excavator/Trenching	Southwest	4	0	9	5	7	7	None	None (default)	None (default)	
287383	10/9/2022	ERTC NTCRA 2-SWMU1	SWMU1	14:52	Driving, Using Excavator/Trenching	Southwest	6	0	19	5	12	12	None	None (default)	None (default)	
287383	10/9/2022	ERTC NTCRA 2-SWMU1	SWMU1	9:02	Driving, Using Excavator/Trenching	Southeast	3	0	5	7	6	6	None	None (default)	None (default)	
287383	10/9/2022	ERTC NTCRA 2-SWMU1	SWMU1	9:24	Driving, Using Excavator/Trenching	East	1	0	5	7	6	6	None	None (default)	None (default)	
287383	10/9/2022	ERTC NTCRA 2-SWMU1	SWMU1	7:59	Driving, Using Excavator/Trenching	Southeast	4	0	4	15	9.5	9.5	None	None (default)	None (default)	
287383	10/9/2022	ERTC NTCRA 2-SWMU1	SWMU1	11:00	Driving, Using Excavator/Trenching	Southwest	4	0	7	18	12.5	12.5	None	None (default)	None (default)	
287383	10/9/2022	ERTC NTCRA 2-SWMU1	SWMU1	12:53	Driving, Using Excavator/Trenching	Southwest	6	0	17	30	23.5	23.5	More sidewall scraping. Crew focusing water on sidewall.	None (default)	Applied more water	
287385	10/10/2022	ERTC NTCRA 2-SWMU1	SWMU1	10:12	Driving, Using Excavator/Trenching	Southeast	3		13	5	9	9	None	None (default)	None (default)	
287385	10/10/2022	ERTC NTCRA 2-SWMU1	SWMU1	8:43	Driving, Using Excavator/Trenching	Southeast	3		18	7	12.5	12.5	None	None (default)	None (default)	
287385	10/10/2022	ERTC NTCRA 2-SWMU1	SWMU1	8:31	Driving, Using Excavator/Trenching	Southeast	3		2	8	5	5	None	None (default)	None (default)	
287385	10/10/2022	ERTC NTCRA 2-SWMU1	SWMU1	13:00	Driving, Using Excavator/Trenching	South	4		4	8	6	6	None	None (default)	None (default)	
287385	10/10/2022	ERTC NTCRA 2-SWMU1	SWMU1	14:39	Driving, Using Excavator/Trenching	Southwest	4		12	19	15.5	15.5	None	None (default)	None (default)	
287385	10/10/2022	ERTC NTCRA 2-SWMU1	SWMU1	12:36	Driving, Using Excavator/Trenching	South	4		6	21	13.5	13.5	None	None (default)	None (default)	
287388	10/11/2022	ERTC NTCRA 2-SWMU1	SWMU1	11:07	Driving, Using Excavator/Trenching	South	3		1	2	1.5	1.5	None	None (default)	None (default)	
287388	10/11/2022	ERTC NTCRA 2-SWMU1	SWMU1	8:56	Driving, Using Excavator/Trenching	Southeast	3		17	3	10	10	None	None (default)	None (default)	
287388	10/11/2022	ERTC NTCRA 2-SWMU1	SWMU1	10:40	Driving, Using Excavator/Trenching	Southeast	3		2	5	3.5	3.5	None	None (default)	None (default)	
287388	10/11/2022	ERTC NTCRA 2-SWMU1	SWMU1	10:20	Driving, Using Excavator/Trenching	Southeast	3		2	9	5.5	5.5	None	None (default)	None (default)	
287392	10/12/2022	ERTC NTCRA 2-SWMU1	SWMU1	13:46	Driving, Using Excavator/Trenching	Northwest	2	0	8	5	6.5	6.5	None	None (default)	None (default)	

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Survey Id	Survey Date	Daily Summary - ERTC	ERTC	Time	Description of Ground Disturbance Activity	Wind Direction	Wind Speed (mph)	Upwind Dust Value (µg/m ³)	Downwind 1 Dust Value (µg/m ³)	Downwind 2 Dust Value (µg/m ³)	Average Downwind Value (µg/m ³)	Average Downwind Minus Upwind Value (µg/m ³)	Additional Comments on High Dust Levels (Exceeding 20 µg/m ³)	Action Based on Dust Concentration	CM Action (if necessary)	Entry - Other
287392	10/12/2022	ERTC NTCRA 2-SWMU1	SWMU1	8:15	Driving, Using Excavator/Trenching	Southwest	3	0	4	7	5.5	5.5	None	None (default)	None (default)	
287392	10/12/2022	ERTC NTCRA 2-SWMU1	SWMU1	8:40	Driving, Using Excavator/Trenching	West	3	0	19	7	13	13	None	None (default)	None (default)	
287392	10/12/2022	ERTC NTCRA 2-SWMU1	SWMU1	7:36	Driving, Using Excavator/Trenching	Southwest	3	0	9	11	10	10	None	None (default)	None (default)	
287392	10/12/2022	ERTC NTCRA 2-SWMU1	SWMU1	9:12	Driving, Using Excavator/Trenching	West	1	0	5	12	8.5	8.5	None	None (default)	None (default)	
287392	10/12/2022	ERTC NTCRA 2-SWMU1	SWMU1	12:44	Driving, Using Excavator/Trenching	West	2	0	12	13	12.5	12.5	None	None (default)	None (default)	
287392	10/12/2022	ERTC NTCRA 2-SWMU1	SWMU1	10:37	Driving, Using Excavator/Trenching	West	1	0	9	14	11.5	11.5	None	None (default)	None (default)	
287398	10/13/2022	ERTC NTCRA 2-SWMU1	SWMU1	9:35	Driving, Using Excavator/Trenching	Southwest	2		11	2	6.5	6.5	None	None (default)	None (default)	
287398	10/13/2022	ERTC NTCRA 2-SWMU1	SWMU1	7:43	Driving, Using Excavator/Trenching	Southwest	2		9	21	15	15	None	None (default)	None (default)	
291521	10/21/2022	ERTC NTCRA 2-SWMU1	SWMU1	8:24	Backfilling, Driving	Southeast	1		8	5	6.5	6.5	None	None (default)	None (default)	
291521	10/21/2022	ERTC NTCRA 2-SWMU1	SWMU1	11:06	Backfilling, Driving	North	1		8	5	6.5	6.5	Offloading of rocks is creating dust but because of almost no wind the dust is not traveling out of work area. Still had a conversation with GWP about wet loading the rocks while in the SPY to avoid dust.	None (default)	Applied more water	
291521	10/21/2022	ERTC NTCRA 2-SWMU1	SWMU1	9:15	Backfilling, Driving	North	1		7	12	9.5	9.5	None	None (default)	None (default)	
291521	10/21/2022	ERTC NTCRA 2-SWMU1	SWMU1	13:13	Backfilling, Driving	Northeast	1		18	15	16.5	16.5	None	None (default)	None (default)	
291523	10/24/2022	ERTC NTCRA 2-SWMU1	SWMU1	7:29	Backfilling, Driving	Northwest	12		6	5	5.5	5.5	None	None (default)	None (default)	
291523	10/24/2022	ERTC NTCRA 2-SWMU1	SWMU1	9:21	Backfilling, Driving	Northwest	12		23	12	17.5	17.5	More loads of rocks, crew is taking extra care to water when dumping.	None (default)	None (default)	
291523	10/24/2022	ERTC NTCRA 2-SWMU1	SWMU1	10:47	Backfilling, Driving	Northwest	12		8	25	16.5	16.5	None	None (default)	None (default)	
291523	10/24/2022	ERTC NTCRA 2-SWMU1	SWMU1	11:24	Backfilling, Driving	Northwest	13		15	28	21.5	21.5	Again, loads of rocks are the only real source of dust when not being watered while loading in the SPY. Contacted GWP to increase watering of loads in SPY.	None (default)	None (default)	
291525	10/25/2022	ERTC NTCRA 2-SWMU1	SWMU1	7:45	Backfilling, Driving	Northeast	1		8	5	6.5	6.5	None	None (default)	None (default)	
291525	10/25/2022	ERTC NTCRA 2-SWMU1	SWMU1	11:05	Backfilling, Driving	North	1		9	5	7	7	None	None (default)	None (default)	
291525	10/25/2022	ERTC NTCRA 2-SWMU1	SWMU1	8:39	Backfilling, Driving	Northeast	1		2	9	5.5	5.5	None	None (default)	None (default)	
291525	10/25/2022	ERTC NTCRA 2-SWMU1	SWMU1	9:57	Backfilling, Driving	North	1		27	58	42.5	42.5	Once again, needed to remind GWP to water loads of rocks while loading in the SPY. Next loads were wet and dust was essentially eliminated.	None (default)	Applied more water	
291528	10/26/2022	ERTC NTCRA 2-SWMU1	SWMU1	11:27	Backfilling, Driving	South	0		3	6	4.5	4.5	No loads of rocks today and almost no wind. Dust has been a non issue.	None (default)	None (default)	
291528	10/26/2022	ERTC NTCRA 2-SWMU1	SWMU1	8:26	Backfilling, Driving	Southeast	1		10	6	8	8	None	None (default)	None (default)	
291528	10/26/2022	ERTC NTCRA 2-SWMU1	SWMU1	9:59	Backfilling, Driving	Southeast	1		5	7	6	6	None	None (default)	None (default)	
293615	11/1/2022	ERTC NTCRA 1-AOC10-2	AOC10-2		Driving, Staging, Using Excavator/Trenching	Northwest	8		15	5	10		None			
293615	11/1/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:30	Driving, Staging, Using Excavator/Trenching	Southeast	4		5	7	6	6	None	None (default)	None (default)	
293615	11/1/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	9:17	Driving, Staging, Using Excavator/Trenching	Southeast	4		6	8	7	7	None	None (default)	None (default)	
293615	11/1/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	11:19	Driving, Staging, Using Excavator/Trenching	Northwest	8		28	11	19.5	19.5	None	None (default)	None (default)	
293615	11/1/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	13:07	Driving, Staging, Using Excavator/Trenching	Northwest	8		8	12	10	10	None	None (default)	None (default)	
293615	11/1/2022	ERTC NTCRA 1-AOC10-2	AOC10-2		Driving, Staging, Using Excavator/Trenching	Northwest	8		159	215	187		Paused activities until more thorough soaking could be done. Sidewalls are difficult to get water to soak in to.	Informed CM of exceedance of 100 µg/m3	Applied more water	
298153	11/2/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	14:10	Driving, Staging, Using Excavator/Trenching	Southwest	12		10	8	9	9	None	None (default)	None (default)	
298153	11/2/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:19	Driving, Staging, Using Excavator/Trenching	Southwest	12		10	10	10	10	None	None (default)	None (default)	
298153	11/2/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	13:01	Driving, Staging, Using Excavator/Trenching	Southwest	13		15	11	13	13	Crew doing excellent job keeping sidewalls watered for safety sloping work.	None (default)	None (default)	
298153	11/2/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	10:27	Driving, Staging, Using Excavator/Trenching	Southwest	10		8	13	10.5	10.5	None	None (default)	None (default)	
298161	11/3/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:50	Driving, Staging, Using Excavator/Trenching	Southwest	11		5	8	6.5	6.5	None	None (default)	None (default)	

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Survey Id	Survey Date	Daily Summary - ERTC	ERTC	Time	Description of Ground Disturbance Activity	Wind Direction	Wind Speed (mph)	Upwind Dust Value (µg/m³)	Downwind 1 Dust Value (µg/m³)	Downwind 2 Dust Value (µg/m³)	Average Downwind Value (µg/m³)	Average Downwind Minus Upwind Value (µg/m³)	Additional Comments on High Dust Levels (Exceeding 20 µg/m³)	Action Based on Dust Concentration	CM Action (if necessary)	Entry - Other
298161	11/3/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	13:15	Driving, Staging, Using Excavator/Trenching	Southwest	15		11	15	13	13	None	None (default)	None (default)	
298180	11/14/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	10:22	Driving, Using Excavator/Trenching	Northwest	18		6	5	5.5	5.5	None	None (default)	None (default)	
298180	11/14/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	11:02	Driving, Using Excavator/Trenching	Northwest	18		6	5	5.5	5.5	None	None (default)	None (default)	
298180	11/14/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:28	Backfilling, Driving, Using Excavator/Trenching	Northwest	10		5	7	6	6	None	None (default)	None (default)	
298180	11/14/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	14:34	Driving, Using Excavator/Trenching	Northwest	16		6	7	6.5	6.5	None	None (default)	None (default)	
298180	11/14/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	9:27	Driving, Using Excavator/Trenching	Northwest	14		12	15	13.5	13.5	None	None (default)	None (default)	
298180	11/14/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	12:44	Driving, Using Excavator/Trenching	Northwest	18		18	15	16.5	16.5	None	None (default)	None (default)	
298180	11/14/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	13:51	Driving, Using Excavator/Trenching	Northwest	17		11	17	14	14	None	None (default)	None (default)	
298185	11/15/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	14:44	Driving, Using Excavator/Trenching	Northwest	25		15	10	12.5	12.5	Even with lots of wind crew doing awesome job with dust control.	None (default)	None (default)	
298185	11/15/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	13:28	Driving, Using Excavator/Trenching	Northwest	22		17	15	16	16	None	None (default)	None (default)	
298185	11/15/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	7:41	Driving, Using Excavator/Trenching	Northwest	21		21	17	19	19	None	None (default)	None (default)	
298185	11/15/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:27	Driving, Using Excavator/Trenching	Northwest	20		11	19	15	15	None	None (default)	None (default)	
298186	11/16/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	11:11	Driving, Using Excavator/Trenching	Northwest	25		15	16	15.5	15.5	Again, crew did amazing job with dust control with very high winds.	None (default)	None (default)	
298186	11/16/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	10:15	Driving, Using Excavator/Trenching	Northwest	27		23	17	20	20	Very windy day.	None (default)	None (default)	
298186	11/16/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	9:40	Driving, Using Excavator/Trenching	Northwest	28		15	19	17	17	None	None (default)	None (default)	
298190	11/17/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	7:23	Driving, Using Excavator/Trenching	Northwest	4		5	9	7	7	None	None (default)	None (default)	
298190	11/17/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	10:58	Driving, Using Excavator/Trenching	Northwest	5		30	52	41	41	Controlled burn across river causing significant smoke and ash-fall. Work stopped early due to health concerns.	None (default)	None (default)	
298210	11/18/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	13:08	Driving, Using Excavator/Trenching	Northwest	15	0	8	5	6.5	6.5	Defaults used for upwind so form will save.	None (default)	None (default)	
298210	11/18/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	11:05	Driving, Using Excavator/Trenching	Northwest	8	0	4	6	5	5	Defaults used for upwind so form will save.	None (default)	None (default)	
298210	11/18/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	11:46	Driving, Using Excavator/Trenching	Northwest	10	0	7	11	9	9	Defaults used for upwind so form will save.	None (default)	None (default)	
300603	11/29/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	14:09	Driving, Using Excavator/Trenching	North	2	5	22	14	18	13	None	None (default)	None (default)	
300603	11/29/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	9:34	Driving, Using Excavator/Trenching	Northeast	2	4	15	21	18	14	Normal activities dust suppression applied	None (default)	None (default)	
300603	11/29/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	9:50	Driving, Using Excavator/Trenching	Northeast	2	2	31	33	32	30	Normal activities dust suppression applied	None (default)	None (default)	
300603	11/29/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	9:10	Driving, Using Excavator/Trenching	North	2	32	30	34	32	0	Normal activities dust suppression applied	None (default)	None (default)	
300613	11/30/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	12:40	Driving, Using Excavator/Trenching	Northwest	1	8	14	5	9.5	1.5	None	None (default)	None (default)	
300613	11/30/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:04	Driving, Using Excavator/Trenching	Northeast	1	0	17	9	13	13	None	None (default)	None (default)	
300613	11/30/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	12:57	Driving, Using Excavator/Trenching	Northwest	2	5	32	12	22	17	None	None (default)	None (default)	
300613	11/30/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:15	Driving, Using Excavator/Trenching	Northwest	1	0	21	18	19.5	19.5	None	None (default)	None (default)	
300626	12/1/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:51	Driving, Using Excavator/Trenching	Northwest	0	5	5	10	7.5	2.5	None	None (default)	None (default)	
300626	12/1/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:17	Driving, Using Excavator/Trenching	Northwest	0	7	6	10	8	1	None	None (default)	None (default)	
300626	12/1/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:18	Driving, Using Excavator/Trenching	Northwest	0	7	34	15	24.5	17.5	None	None (default)	None (default)	
302905	12/5/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:42	Driving, Using Excavator/Trenching	Northwest	2	0	2	0	1	1	None	None (default)	None (default)	
302905	12/5/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:27	Driving, Using Excavator/Trenching	Northwest	2	0	5	7	6	6	None	None (default)	None (default)	

Table 2-2. Real-Time Fugitive-Dust Measurements

Survey Id	Survey Date	Daily Summary - ERTC	ERTC	Time	Description of Ground Disturbance Activity	Wind Direction	Wind Speed (mph)	Upwind Dust Value (µg/m³)	Downwind 1 Dust Value (µg/m³)	Downwind 2 Dust Value (µg/m³)	Average Downwind Value (µg/m³)	Average Downwind Minus Upwind Value (µg/m³)	Additional Comments on High Dust Levels (Exceeding 20 µg/m³)	Action Based on Dust Concentration	CM Action (if necessary)	Entry - Other
302905	12/5/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	13:35					5				None			
302905	12/5/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	13:22	Driving, Using Excavator/Trenching	Northwest	1						None			
302910	12/6/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:54	Driving, Using Excavator/Trenching	Northwest	1	0	0	0	0	0	None	None (default)	None (default)	
302910	12/6/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	13:56	Driving, Using Excavator/Trenching	Northwest	2	0	4	4	4	4	None	None (default)	None (default)	
302910	12/6/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	8:38	Driving, Using Excavator/Trenching	Northwest	1	9	0	7	3.5	0	None	None (default)	None (default)	
302921	12/7/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	9:56	Driving, Using Excavator/Trenching	Northwest	1	0	19	0	9.5	9.5	None	None (default)	None (default)	
302921	12/7/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	9:53	Driving, Using Excavator/Trenching		1	0	6	16	11	11	None	None (default)	None (default)	
302921	12/7/2022	ERTC NTCRA 1-AOC10-2	AOC10-2	9:35	Driving, Using Excavator/Trenching	Northwest	2	0	15	20	17.5	17.5	None	None (default)	None (default)	
303345	12/14/2022	ERTC NTCRA 1-SPY	SPY	8:48	Driving, Other	Northwest	1	2	5	10	7.5	5.5	None	None (default)	None (default)	NTCRA aoc10-4 hauling in the spy
303345	12/14/2022	ERTC NTCRA 1-SPY	SPY	13:21	Driving, Other	Northwest	1	0	5	11	8	8	None	None (default)	None (default)	GWP offloading NTCRA soil aoc10-4
303346	12/14/2022	ERTC NTCRA 1-AOC10-4	AOC10-4	10:07	Driving, Using Excavator/Trenching	Northwest	1	3	0	0	0	0	None	None (default)	None (default)	
303346	12/14/2022	ERTC NTCRA 1-AOC10-4	AOC10-4	9:59	Driving, Using Excavator/Trenching	Northwest	2	1	4	2	3	2	None	None (default)	None (default)	
303346	12/14/2022	ERTC NTCRA 1-AOC10-4	AOC10-4	10:18	Driving, Using Excavator/Trenching	Northwest	1	0	1	3	2	2	None	None (default)	None (default)	
303379	12/15/2022	ERTC NTCRA 1-SPY	SPY	10:02	Driving, Other	Northwest	2	0	5	6	5.5	5.5	None	None (default)	None (default)	GWP off loading soil
305834	12/15/2022	ERTC NTCRA 1-AOC10-4	AOC10-4	11:14	Using Excavator/Trenching	North	2	0	3	2	2.5	2.5	None	None (default)	None (default)	
305834	12/15/2022	ERTC NTCRA 1-AOC10-4	AOC10-4	11:05	Using Excavator/Trenching	North	1	0	4	4	4	4	None	None (default)	None (default)	
305845	12/20/2022	ERTC NTCRA 1-SPY	SPY	10:36	Driving, Staging	Northwest	2	0	10	7	8.5	8.5	None	None (default)	None (default)	
305845	12/20/2022	ERTC NTCRA 1-SPY	SPY	10:35	Driving, Staging	Northwest	1	0	4	10	7	7	None	None (default)	None (default)	
306427	1/5/2023	ERTC NTCRA 1-AOC10-2	AOC10-2	8:07	Driving, Using Excavator/Trenching	Southeast	1	0	0	0	0	0	None	None (default)	None (default)	
306427	1/5/2023	ERTC NTCRA 1-AOC10-2	AOC10-2	11:14	Driving, Using Excavator/Trenching	Southeast	2	1	0	5	2.5	1.5	None	None (default)	None (default)	
306427	1/5/2023	ERTC NTCRA 1-AOC10-2	AOC10-2	11:02	Driving, Using Excavator/Trenching	Southeast	2	2	2	5	3.5	1.5	None	None (default)	None (default)	
307360	1/6/2023	ERTC NTCRA 1-AOC10-2	AOC10-2	8:35	Driving, Using Excavator/Trenching	South	2	0	1	7	4	4	None	None (default)	None (default)	
307360	1/6/2023	ERTC NTCRA 1-AOC10-2	AOC10-2	8:39	Driving, Using Excavator/Trenching	South	2	5	0	13	6.5	1.5	None	None (default)	None (default)	
307360	1/6/2023	ERTC NTCRA 1-AOC10-2	AOC10-2	8:58	Driving, Using Excavator/Trenching	South	2	6	12	14	13	7	None	None (default)	None (default)	
313957	2/6/2023	ERTC NTCRA 3 AOC1-1 & AC-1 & AOC14	-1 & AOC14	10:01	Backfilling, Driving, Staging, Using Excavator/Trenching	Northwest	20		15	5	10	10	None	None (default)	None (default)	
313957	2/6/2023	ERTC NTCRA 3 AOC1-1 & AC-1 & AOC14	-1 & AOC14	9:22	Grading, Staging, Using Excavator/Trenching	Northwest	18		5	8	6.5	6.5	None	None (default)	None (default)	
313957	2/6/2023	ERTC NTCRA 3 AOC1-1 & AC-1 & AOC14	-1 & AOC14	10:17	Backfilling, Driving, Grading, Staging, Using Excavator/Trenching	Northwest	21		22	17	19.5	19.5	Windy	None (default)	None (default)	
313957	2/6/2023	ERTC NTCRA 3 AOC1-1 & AC-1 & AOC14	-1 & AOC14	9:13	Backfilling, Driving, Grading, Staging, Using Excavator/Trenching	Northwest	17		11	24	17.5	17.5	None	None (default)	Applied more water	
313957	2/6/2023	ERTC NTCRA 3 AOC1-1 & AC-1 & AOC14	-1 & AOC14	9:33	Backfilling, Driving, Grading, Staging, Using Excavator/Trenching	Northwest	18		17	43	30	30	Very windy.	None (default)	None (default)	
313957	2/6/2023	ERTC NTCRA 3 AOC1-1 & AC-1 & AOC14	-1 & AOC14	11:09	Backfilling, Driving, Grading, Staging, Using Excavator/Trenching	Northwest	22		68	89	78.5	78.5	Winds are picking up. Paused excavator to soak area before continuing.	Informed CM that dust levels are approaching 100 µg/m3	Applied more water	
315200	2/7/2023	ERTC NTCRA 3 AOC1-1 & AC-1 & AOC14	-1 & AOC14	12:38	Driving, Using Excavator/Trenching	Northwest	16		80	11	45.5	45.5	Fairly windy with significant gusts. Still getting into that cement mix looking "soil".	Informed CM that dust levels are approaching 100 µg/m3	Applied more water	
315200	2/7/2023	ERTC NTCRA 3 AOC1-1 & AC-1 & AOC14	-1 & AOC14	11:16	Driving, Using Excavator/Trenching	Northwest	16		40	14	27	27	None	None (default)	None (default)	
315200	2/7/2023	ERTC NTCRA 3 AOC1-1 & AC-1 & AOC14	-1 & AOC14	12:44	Driving, Using Excavator/Trenching	Northwest	16		28	15	21.5	21.5	None	None (default)	None (default)	
315200	2/7/2023	ERTC NTCRA 3 AOC1-1 & AC-1 & AOC14	-1 & AOC14	12:19	Driving, Using Excavator/Trenching	Northwest	16		18	23	20.5	20.5	None	None (default)	None (default)	

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315200	2/7/2023	ERTC NTCRA 3 AOC1-1 & AOC14	-1 & AOC14	12:33	Driving, Using Excavator/Trenching	Northwest	16		76	30	53	53	None	Informed CM that dust levels are approaching 100 µg/m3	Applied more water	
315200	2/7/2023	ERTC NTCRA 3 AOC1-1 & AOC14	-1 & AOC14	10:39	Driving, Using Excavator/Trenching	Northwest	16		8	32	20	20	None	None (default)	None (default)	
315200	2/7/2023	ERTC NTCRA 3 AOC1-1 & AOC14	-1 & AOC14	11:10		Northwest	16		115	35	75	75	Paused excavator to wet area before continuing. Material appears to be pure cement mix. Extremely fine and powdery. Water is not penetrating even with soaking. Instructed crew to slow down and stir water in before loading.	Informed CM that dust levels are approaching 100 µg/m3	Applied more water	
315200	2/7/2023	ERTC NTCRA 3 AOC1-1 & AOC14	-1 & AOC14	11:47	Driving, Using Excavator/Trenching	Northwest	16		87	37	62	62		Informed CM that dust levels are approaching 100 µg/m3	Applied more water	
315200	2/7/2023	ERTC NTCRA 3 AOC1-1 & AOC14	-1 & AOC14	11:00	Driving, Using Excavator/Trenching	Northwest	16		51	50	50.5	50.5	None	Informed CM that dust levels are approaching 100 µg/m3	Applied more water	
315200	2/7/2023	ERTC NTCRA 3 AOC1-1 & AOC14	-1 & AOC14	12:13	Driving, Using Excavator/Trenching	Northwest	16		54	63	58.5	58.5	None	Informed CM that dust levels are approaching 100 µg/m3	Applied more water	
315200	2/7/2023	ERTC NTCRA 3 AOC1-1 & AOC14	-1 & AOC14	11:04	Driving, Using Excavator/Trenching	Northwest	16		66	73	69.5	69.5	Instructed team to try another angle with the water hose to better hit the dry sidewall where dust is coming from.	Informed CM that dust levels are approaching 100 µg/m3	Applied more water	
315203	2/8/2023	ERTC NTCRA 3 AOC1-1 & AOC14	-1 & AOC14	8:37	Driving, Using Excavator/Trenching	Northwest	3		12	2	7	7	None	None (default)	None (default)	
315203	2/8/2023	ERTC NTCRA 3 AOC1-1 & AOC14	-1 & AOC14	8:27	Driving, Using Excavator/Trenching	Northwest	3		8	3	5.5	5.5	None	None (default)	None (default)	
315203	2/8/2023	ERTC NTCRA 3 AOC1-1 & AOC14	-1 & AOC14	9:46	Driving, Using Excavator/Trenching	Northwest	5		2	8	5	5	None	None (default)	None (default)	
315203	2/8/2023	ERTC NTCRA 3 AOC1-1 & AOC14	-1 & AOC14	8:30	Driving, Using Excavator/Trenching	Northwest	3		6	8	7	7	None	None (default)	None (default)	
315203	2/8/2023	ERTC NTCRA 3 AOC1-1 & AOC14	-1 & AOC14	8:51	Driving, Using Excavator/Trenching	Northwest	4		30	11	20.5	20.5	None	None (default)	None (default)	
315203	2/8/2023	ERTC NTCRA 3 AOC1-1 & AOC14	-1 & AOC14	12:47	Driving, Using Excavator/Trenching	Northwest	6		35	11	23	23	None	None (default)	None (default)	
315203	2/8/2023	ERTC NTCRA 3 AOC1-1 & AOC14	-1 & AOC14	9:07	Driving, Using Excavator/Trenching	Northwest	4		9	16	12.5	12.5	None	None (default)	None (default)	
315203	2/8/2023	ERTC NTCRA 3 AOC1-1 & AOC14	-1 & AOC14	9:00	Driving, Using Excavator/Trenching	Northwest	4		809	25	417	417	Encountered a very thick layer of that super fine white/grey powdery material that looks like pure cement mix.	Informed CM that dust levels are approaching 100 µg/m3	Applied more water	
315203	2/8/2023	ERTC NTCRA 3 AOC1-1 & AOC14	-1 & AOC14	13:19	Driving, Using Excavator/Trenching	Northwest	6		23	32	27.5	27.5	None	None (default)	None (default)	
315203	2/8/2023	ERTC NTCRA 3 AOC1-1 & AOC14	-1 & AOC14	13:47	Driving, Using Excavator/Trenching	Northwest	6		24	33	28.5	28.5	None	None (default)	None (default)	
315203	2/8/2023	ERTC NTCRA 3 AOC1-1 & AOC14	-1 & AOC14	13:08	Driving, Using Excavator/Trenching	Northwest	6		24	44	34	34	None	None (default)	None (default)	
315203	2/8/2023	ERTC NTCRA 3 AOC1-1 & AOC14	-1 & AOC14	9:35	Driving, Using Excavator/Trenching	Northwest	5		8	54	31	31	None	None (default)	Applied more water	
315203	2/8/2023	ERTC NTCRA 3 AOC1-1 & AOC14	-1 & AOC14	9:28	Driving, Using Excavator/Trenching	Northwest	12		27	62	44.5	44.5	None	None (default)	Applied more water	
315203	2/8/2023	ERTC NTCRA 3 AOC1-1 & AOC14	-1 & AOC14	9:15	Driving, Using Excavator/Trenching	Northwest	5		657				Stopped work as dust issue associated with the white/grey powdery material continued. Several adjustments will be made, changing to the toothed bucket, changing water hose angle and dispersal width, slowing down pace, and pre mixing the water into truck.	Informed CM of exceedance of 100 µg/m3	Stopped construction activities	
315212	2/10/2023	ERTC NTCRA 3 AOC1-1 & AOC14	-1 & AOC14	8:49	Driving, Using Excavator/Trenching	Northwest	5		4	23	13.5	13.5	None	None (default)	None (default)	
315212	2/10/2023	ERTC NTCRA 3 AOC1-1 & AOC14	-1 & AOC14	8:53	Driving, Using Excavator/Trenching	Northwest	5		18	25	21.5	21.5	None	None (default)	None (default)	
315212	2/10/2023	ERTC NTCRA 3 AOC1-1 & AOC14	-1 & AOC14	10:21	Driving, Using Excavator/Trenching	Northwest	7	38	11	38	24.5	0	Very smoky from fire across the river.	None (default)	None (default)	
315212	2/10/2023	ERTC NTCRA 3 AOC1-1 & AOC14	-1 & AOC14	8:40	Driving, Using Excavator/Trenching	Northwest	5		12	51	31.5	31.5	Starting to smell the smoke from across the river. Smoke is coming in gusts with high particulate matter counts. Only getting worse as day progresses. Upwind reading between 75 and 300µg/m3.	None (default)	None (default)	
315212	2/10/2023	ERTC NTCRA 3 AOC1-1 & AOC14	-1 & AOC14	11:29	Driving, Using Excavator/Trenching	Northwest	7	225	171	264	217.5	0		None (default)	None (default)	
315767	2/13/2023	ERTC NTCRA 2-SWMU1	SWMU1	8:50	Driving, Using Excavator/Trenching	South	6		9	1	5	5	None	None (default)	None (default)	
315767	2/13/2023	ERTC NTCRA 2-SWMU1	SWMU1	9:00	Backfilling, Driving, Using Excavator/Trenching	South	6		10	5	7.5	7.5	None	None (default)	None (default)	

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315767	2/13/2023	ERTC NTCRA 2-SWMU1	SWMU1	8:43	Driving, Using Excavator/Trenching	South	6		2	6	4	4	None	None (default)	None (default)	
315767	2/13/2023	ERTC NTCRA 2-SWMU1	SWMU1	9:07	Backfilling, Driving	South	6		2	9	5.5	5.5	None	None (default)	None (default)	
315767	2/13/2023	ERTC NTCRA 2-SWMU1	SWMU1	9:52	Backfilling, Driving, Using Excavator/Trenching	South	7		6	9	7.5	7.5	None	None (default)	None (default)	
315767	2/13/2023	ERTC NTCRA 2-SWMU1	SWMU1	10:34	Backfilling, Driving, Using Excavator/Trenching	South	7		6	10	8	8	Requested water truck to run down ponds road.	None (default)	None (default)	
315767	2/13/2023	ERTC NTCRA 2-SWMU1	SWMU1	10:10	Backfilling, Driving, Using Excavator/Trenching	South	7		4	12	8	8	None	None (default)	None (default)	
315767	2/13/2023	ERTC NTCRA 2-SWMU1	SWMU1	13:40	Backfilling, Driving, Using Excavator/Trenching	South	7		6	22	14	14	None	None (default)	None (default)	
315776	2/14/2023	ERTC NTCRA 3 AOC1-1 & AOC14	-1 & AOC14	12:11	Backfilling, Driving	Southwest	15		14	9	11.5	11.5	None	None (default)	None (default)	
315776	2/14/2023	ERTC NTCRA 3 AOC1-1 & AOC14	-1 & AOC14	13:35	Backfilling, Driving, Using Excavator/Trenching	Southwest	15		5	13	9	9	None	None (default)	None (default)	
317773	2/15/2023	ERTC NTCRA 2-SWMU1	SWMU1	9:35	Driving, Using Excavator/Trenching	Northwest	10		3	3	3	3	None	None (default)	None (default)	
317773	2/15/2023	ERTC NTCRA 2-SWMU1	SWMU1	9:34	Driving, Using Excavator/Trenching	Northwest	9		14	3	8.5	8.5	None	None (default)	None (default)	
317773	2/15/2023	ERTC NTCRA 2-SWMU1	SWMU1	9:31	Driving, Using Excavator/Trenching	Northwest	9		54	3	28.5	28.5	A little dusty on the back side of the berm. Informed crew and water hose angle was adjusted.	None (default)	Applied more water	
317773	2/15/2023	ERTC NTCRA 2-SWMU1	SWMU1	13:05	Driving, Using Excavator/Trenching	North	16		14	6	10	10	None	None (default)	None (default)	
317773	2/15/2023	ERTC NTCRA 2-SWMU1	SWMU1	13:51	Driving, Using Excavator/Trenching	Northwest	16		11	7	9	9	None	None (default)	None (default)	
317773	2/15/2023	ERTC NTCRA 2-SWMU1	SWMU1	13:13	Driving, Using Excavator/Trenching	North	16		55	8	31.5	31.5	A little dry on roads. Let crew know and water was applied to the area.	None (default)	Applied more water	
317773	2/15/2023	ERTC NTCRA 2-SWMU1	SWMU1	13:24	Driving, Using Excavator/Trenching	Northwest	16		24	18	21	21	None	None (default)	None (default)	
317775	2/16/2023	ERTC NTCRA 2-SWMU1	SWMU1	12:54	Driving, Using Excavator/Trenching	Northwest	12		16	8	12	12	None	None (default)	None (default)	
317775	2/16/2023	ERTC NTCRA 2-SWMU1	SWMU1	10:52	Driving, Using Excavator/Trenching	Northwest	12		17	8	12.5	12.5	None	None (default)	None (default)	
317775	2/16/2023	ERTC NTCRA 2-SWMU1	SWMU1	10:40	Driving, Using Excavator/Trenching	Northwest	12		27	9	18	18	None	None (default)	None (default)	
317775	2/16/2023	ERTC NTCRA 2-SWMU1	SWMU1	12:38	Driving, Using Excavator/Trenching	Northwest	12		7	13	10	10	None	None (default)	None (default)	
317775	2/16/2023	ERTC NTCRA 2-SWMU1	SWMU1	11:02	Driving, Using Excavator/Trenching	Northwest	12		8	15	11.5	11.5	None	None (default)	None (default)	
317775	2/16/2023	ERTC NTCRA 2-SWMU1	SWMU1	11:15	Driving, Using Excavator/Trenching	Northwest	12		10	18	14	14	None	None (default)	None (default)	
317775	2/16/2023	ERTC NTCRA 2-SWMU1	SWMU1	10:27	Driving, Using Excavator/Trenching	Northwest	12		41	75	58	58	Paused to adjust water hose to get back side of berm better.	Informed CM that dust levels are approaching 100 µg/m3	Applied more water	
318749	2/28/2023	ERTC NTCRA 2-SWMU1	SWMU1	10:01	Driving, Using Excavator/Trenching	Southeast	3		4	2	3	3	None	None (default)	None (default)	
318749	2/28/2023	ERTC NTCRA 2-SWMU1	SWMU1	9:56	Driving, Using Excavator/Trenching	Southeast	3		2	3	2.5	2.5	Whole site is fairly moist and water still being applied to activities. No visible dust observed.	None (default)	None (default)	
318804	2/22/2023	ERTC NTCRA 1-AOC10-2	AOC10-2	7:42	Driving, Grading, Using Excavator/Trenching	Southeast	5	0	0	0	0	0	dedicated dust monitoring at oak 10 2 units 1 and 2 for downwind and 4 for upwind	None (default)	None (default)	
318809	2/23/2023	ERTC NTCRA 1-AOC10-2	AOC10-2	7:49	Backfilling, Driving, Using Excavator/Trenching	Southeast	2	0	0	0	0	0	monitoring with dedicated monitors upwind is unit 1 down wind 1 is unit 4 downwind 2 is unit 2	None (default)	None (default)	
318815	2/27/2023	ERTC NTCRA 3 AOC1-1 & AOC14	-1 & AOC14	8:32	Driving, Using Excavator/Trenching	Southeast	4	0	5	0	2.5	2.5	None	None (default)	None (default)	
318815	2/27/2023	ERTC NTCRA 3 AOC1-1 & AOC14	-1 & AOC14	8:26	Driving, Using Excavator/Trenching	Southeast	1	0	2	6	4	4	None	None (default)	None (default)	
318815	2/27/2023	ERTC NTCRA 3 AOC1-1 & AOC14	-1 & AOC14	9:36	Driving, Using Excavator/Trenching	Southeast	5	0	5	8	6.5	6.5	None	None (default)	None (default)	
332387	4/11/2023	ERTC NTCRA 1-AOC10-4	AOC10-4	12:30	Grading, Using Excavator/Trenching	Southeast	2	2	3	4	3.5	1.5	None	None (default)	None (default)	
332387	4/11/2023	ERTC NTCRA 1-AOC10-4	AOC10-4	12:40	Driving, Using Excavator/Trenching	Southeast	2	2	5	7	6	4	None	None (default)	None (default)	
332387	4/11/2023	ERTC NTCRA 1-AOC10-4	AOC10-4	12:55	Driving, Using Excavator/Trenching	Southeast	2	2	9	577	293	291	None	None (default)	None (default)	
332393	4/13/2023	ERTC NTCRA 1-AOC10-4	AOC10-4	7:35	Backfilling, Driving, Using Excavator/Trenching	East	4	0	0	0	0	0	None	None (default)	None (default)	
332415	4/17/2023	ERTC NTCRA 1-AOC10-2	AOC10-2	7:29	Backfilling, Driving, Using Excavator/Trenching	Southeast	1	0	0	0	0	0	None	None (default)	None (default)	

Table 2-2. Real-Time Fugitive-Dust Measurements

Survey Id	Survey Date	Daily Summary - ERTC	ERTC	Time	Description of Ground Disturbance Activity	Wind Direction	Wind Speed (mph)	Upwind Dust Value (µg/m³)	Downwind 1 Dust Value (µg/m³)	Downwind 2 Dust Value (µg/m³)	Average Downwind Value (µg/m³)	Average Downwind Minus Upwind Value (µg/m³)	Additional Comments on High Dust Levels (Exceeding 20 µg/m³)	Action Based on Dust Concentration	CM Action (if necessary)	Entry - Other
337175	4/19/2023	ERTC NTCRA 1-AOC10-2	AOC10-2	7:58	Driving, Operating hand tools, Using Excavator/Trenching	Southeast	2	0	0	0	0	0	None	None (default)	None (default)	
337245	4/28/2023	ERTC NTCRA 1-AOC10-2	AOC10-2	8:30	Driving, Grading, Using Excavator/Trenching	South	3	13	13	14	13.5	0.5	None	None (default)	None (default)	
337245	4/28/2023	ERTC NTCRA 1-AOC10-2	AOC10-2	8:29	Driving, Grading, Using Excavator/Trenching	South	2	14	21	18	19.5	5.5	None	None (default)	None (default)	
350441	5/2/2023	ERTC NTCRA 1-AOC10-2	AOC10-2	10:07	Driving, Grading, Using Excavator/Trenching	Southeast	2	0	21	14	17.5	17.5	None	None (default)	None (default)	
350441	5/2/2023	ERTC NTCRA 1-AOC10-2	AOC10-2	9:45	Driving, Grading, Using Excavator/Trenching	South	2	4	35	15	25	21	None	None (default)	None (default)	
350441	5/2/2023	ERTC NTCRA 1-AOC10-2	AOC10-2	10:20	Driving, Grading, Using Excavator/Trenching	South	2	0	17	32	24.5	24.5	None	None (default)	None (default)	
350469	5/16/2023	ERTC NTCRA 1-AOC10-2	AOC10-2	8:33	Driving, Using Excavator/Trenching	Southeast	2	0	0	0	0	0	None	None (default)	None (default)	
350487	5/18/2023	ERTC NTCRA 1-AOC10-4	AOC10-4	13:55	Using Excavator/Trenching	Southeast	2	7	38	12	25	18	None	None (default)	None (default)	
350487	5/18/2023	ERTC NTCRA 1-AOC10-4	AOC10-4	13:45	Driving, Using Excavator/Trenching	Southeast	1	10	19	18	18.5	8.5	None	None (default)	None (default)	
350487	5/18/2023	ERTC NTCRA 1-AOC10-4	AOC10-4	13:35	Driving, Using Excavator/Trenching	Southeast	2	6	23	19	21	15	None	None (default)	None (default)	
350488	5/19/2023	ERTC NTCRA 1-AOC10-4	AOC10-4	8:04	Driving, Using Excavator/Trenching	Southeast	6	8	28	15	21.5	13.5	None	None (default)	None (default)	
350488	5/19/2023	ERTC NTCRA 1-AOC10-4	AOC10-4	8:21	Driving, Using Excavator/Trenching	Southeast	6	5	21	21	21	16	None	None (default)	None (default)	
350504	5/24/2023	ERTC NTCRA 1-AOC10-2	AOC10-2	7:22	Driving, Grading, Using Excavator/Trenching	Northwest	2	0	0	0	0	0	None	None (default)	None (default)	
364297	6/20/2023	ERTC NTCRA 2-SWMU1	SWMU1	12:50	Driving, Using Excavator/Trenching	Southwest	7	10	21	6	13.5	3.5	None	None (default)	None (default)	
364297	6/20/2023	ERTC NTCRA 2-SWMU1	SWMU1	13:10	Driving, Using Excavator/Trenching	Southeast	7	6	14	11	12.5	6.5	None	None (default)	None (default)	gwp excavation smwu 1 1
364297	6/20/2023	ERTC NTCRA 2-SWMU1	SWMU1	13:26	Driving, Using Excavator/Trenching	Southwest	8	10	16	12	14	4	None	None (default)	None (default)	
364305	6/21/2023	ERTC NTCRA 2-SWMU1	SWMU1	13:50	Driving, Using Excavator/Trenching	Southeast	8	14	13	13	13	0	None	None (default)	None (default)	
364305	6/21/2023	ERTC NTCRA 2-SWMU1	SWMU1	13:16	Driving, Using Excavator/Trenching	Southeast	4	22	18	17	17.5	0	None	None (default)	None (default)	
364305	6/21/2023	ERTC NTCRA 2-SWMU1	SWMU1	8:45	Driving, Using Excavator/Trenching	Southeast	4	12	19	17	18	6	None	None (default)	None (default)	
364305	6/21/2023	ERTC NTCRA 2-SWMU1	SWMU1	9:00	Driving, Using Excavator/Trenching	Southeast	5	12	14	18	16	4	None	None (default)	None (default)	
364305	6/21/2023	ERTC NTCRA 2-SWMU1	SWMU1	13:37	Driving, Using Excavator/Trenching	Southeast	7	12	19	18	18.5	6.5	None	None (default)	None (default)	
364305	6/21/2023	ERTC NTCRA 2-SWMU1	SWMU1	8:35	Driving, Using Excavator/Trenching	Southeast	4	11	17	20	18.5	7.5	None	None (default)	None (default)	
364308	6/22/2023	ERTC NTCRA 2-SWMU1	SWMU1	7:50	Driving, Using Excavator/Trenching	Southeast	2	0	0	0	0	0	None	None (default)	None (default)	
364319	6/26/2023	ERTC NTCRA 1-SPY	SPY	8:52	Driving, Grading, Other, Using Excavator/Trenching	Southeast	2	3	4	3	3.5	0.5	None	None (default)	None (default)	gwp hauling from. smwu 1 1
364319	6/26/2023	ERTC NTCRA 1-SPY	SPY	9:03	Driving, Using Excavator/Trenching	Southwest	2	2	6	4	5	3	None	None (default)	None (default)	
364320	6/26/2023	ERTC NTCRA 2-SWMU1	SWMU1	10:40	Driving, Grading, Using Excavator/Trenching		4	3	19	11	15	12	None	None (default)	None (default)	
364320	6/26/2023	ERTC NTCRA 2-SWMU1	SWMU1	10:24	Driving, Grading, Using Excavator/Trenching	Southeast	4	6	16	14	15	9	None	None (default)	None (default)	
364320	6/26/2023	ERTC NTCRA 2-SWMU1	SWMU1	10:55	Driving, Grading, Using Excavator/Trenching	Southeast	4	11	18	14	16	5	None	None (default)	None (default)	
364320	6/26/2023	ERTC NTCRA 2-SWMU1	SWMU1	10:15	Driving, Grading, Using Excavator/Trenching	Southeast	4	7	17	19	18	11	None	None (default)	None (default)	
364338	6/29/2023	ERTC NTCRA 2-SWMU1	SWMU1	8:46	Driving, Grading, Other	Southeast	1	12	15	14	14.5	2.5	None	None (default)	None (default)	gwp backfilling and compaction
364338	6/29/2023	ERTC NTCRA 2-SWMU1	SWMU1	8:59	Driving, Grading, Other	Southeast	1	11	16	14	15	4	None	None (default)	None (default)	
364338	6/29/2023	ERTC NTCRA 2-SWMU1	SWMU1	8:35	Driving, Grading, Other	Southwest	1	5	14	18	16	11	None	None (default)	None (default)	gwp backfilling and compacting
371863	7/13/2023	ERTC NTCRA 1-AOC9	AOC9	12:10	Using Excavator/Trenching	Southeast	7	8	10	15	12.5	4.5	None	None (default)	None (default)	
371863	7/13/2023	ERTC NTCRA 1-AOC9	AOC9	11:53	Driving, Using Excavator/Trenching	Southeast	4	6	17	18	17.5	11.5	None	None (default)	None (default)	
371866	7/14/2023	ERTC NTCRA 1-AOC10-1	AOC10-1	9:00	Driving, Using Excavator/Trenching	Southeast	0	4	4	4	4	0	None	None (default)	None (default)	

Table 2-2. Real-Time Fugitive-Dust Measurements

Survey Id	Survey Date	Daily Summary - ERTC	ERTC	Time	Description of Ground Disturbance Activity	Wind Direction	Wind Speed (mph)	Upwind Dust Value ($\mu\text{g}/\text{m}^3$)	Downwind 1 Dust Value ($\mu\text{g}/\text{m}^3$)	Downwind 2 Dust Value ($\mu\text{g}/\text{m}^3$)	Average Downwind Value ($\mu\text{g}/\text{m}^3$)	Average Downwind Minus Upwind Value ($\mu\text{g}/\text{m}^3$)	Additional Comments on High Dust Levels (Exceeding 20 $\mu\text{g}/\text{m}^3$)	Action Based on Dust Concentration	CM Action (if necessary)	Entry - Other
371866	7/14/2023	ERTC NTCRA 1-AOC10-1	AOC10-1	8:40	Driving, Using Excavator/Trenching	Southeast	0	4	5	4	4.5	0.5	None	None (default)	None (default)	
371866	7/14/2023	ERTC NTCRA 1-AOC10-1	AOC10-1	8:23	Driving, Using Excavator/Trenching	Southeast	0	5	8	6	7	2	None	None (default)	None (default)	
374332	7/17/2023	ERTC NTCRA 1-AOC9	AOC9	12:57	Driving, Using Excavator/Trenching	Southeast	5	0	0	0	0	0	None	None (default)	None (default)	
374344	7/20/2023	ERTC NTCRA 1-AOC10-1	AOC10-1	8:33	Using Excavator/Trenching	Southeast	1	0	32	15	23.5	23.5	None	None (default)	None (default)	
374344	7/20/2023	ERTC NTCRA 1-AOC10-1	AOC10-1	12:50	Using Excavator/Trenching	Southeast	3	0	15	16	15.5	15.5	None	None (default)	None (default)	
374344	7/20/2023	ERTC NTCRA 1-AOC10-1	AOC10-1	12:40	Using Excavator/Trenching	Southeast	0	0	34	16	25	25	None	None (default)	None (default)	
374344	7/20/2023	ERTC NTCRA 1-AOC10-1	AOC10-1	12:27	Using Excavator/Trenching	Southeast	3	0	21	23	22	22	None	None (default)	None (default)	
374344	7/20/2023	ERTC NTCRA 1-AOC10-1	AOC10-1	9:51	Using Excavator/Trenching	Southeast	0	0	24	34	29	29	None	None (default)	None (default)	
374350	7/21/2023	ERTC NTCRA 1-AOC10-1	AOC10-1	11:00	Using Excavator/Trenching	East	2	0	15	4	9.5	9.5	None	None (default)	None (default)	
374350	7/21/2023	ERTC NTCRA 1-AOC10-1	AOC10-1	11:34	Excavation Hand Digging	East	6	0	21	15	18	18	None	None (default)	None (default)	
374350	7/21/2023	ERTC NTCRA 1-AOC10-1	AOC10-1	11:20	Using Excavator/Trenching	East	7	0	16	18	17	17	None	None (default)	None (default)	
374353	7/24/2023	ERTC NTCRA 1-AOC10-1	AOC10-1	7:56	Operating hand tools, Using Excavator/Trenching	Southeast	4	0	0	0	0	0	None	None (default)	None (default)	
374358	7/25/2023	ERTC NTCRA 1-AOC10-1	AOC10-1	6:50	Excavation Hand Digging, Using Excavator/Trenching	Southeast	4	0	0	0	0	0	None	None (default)	None (default)	
374362	7/26/2023	ERTC NTCRA 1-AOC10-1	AOC10-1	6:15	Excavation Hand Digging, Using Excavator/Trenching	Southeast	4	0	0	0	0	0	None	None (default)	None (default)	
374367	7/26/2023	ERTC NTCRA 1-AOC10-1	AOC10-1	8:49	Using Excavator/Trenching	Southeast	6	0	15	9	12	12	None	None (default)	None (default)	
374367	7/26/2023	ERTC NTCRA 1-AOC10-1	AOC10-1	12:55	Using Excavator/Trenching	Southeast	8	0	20	44	32	32	Dirt is very dry it's extreme heat and the soil doesn't want to take any water	None (default)	None (default)	
374367	7/26/2023	ERTC NTCRA 1-AOC10-1	AOC10-1	8:50	Using Excavator/Trenching	East	6	0	45	68	56.5	56.5	Dirt does not want to hold water making multiple attempt to combat	Informed CM that dust levels are approaching 100 $\mu\text{g}/\text{m}^3$	Adjusted pace of excavation	
374372	7/27/2023	ERTC NTCRA 1-AOC10-1	AOC10-1	7:41	Using Excavator/Trenching	South	8	0	1	7	4	4	None	None (default)	None (default)	
374372	7/27/2023	ERTC NTCRA 1-AOC10-1	AOC10-1	8:03	Using Excavator/Trenching	South	8	0	3	15	9	9	None	None (default)	None (default)	
374388	8/1/2023	ERTC NTCRA 1-SPY	SPY	9:24	Other, Using Excavator/Trenching	Southeast	4	0	0	0	0	0	None	None (default)	None (default)	gwp sorting oak 1-1 materials gwp loading oak 10-2 materials for transport to RS lapaz landfill gwp offloading aoc10-1 material at SPY
377380	8/10/2023	ERTC NTCRA 1-SPY	SPY	7:35	Driving, Using Excavator/Trenching	Southeast	8	0	0	0	0	0	None	None (default)	None (default)	
380630	8/23/2023	ERTC NTCRA 1-AOC10-1	AOC10-1	10:08	Using Excavator/Trenching	Southeast	5	0	0	0	0	0	None	None (default)	None (default)	
380633	8/23/2023	ERTC NTCRA 1-AOC10-1	AOC10-1	10:24	Using Excavator/Trenching	Southeast	5	0	0	0	0	0	None	None (default)	None (default)	
380634	8/23/2023	ERTC NTCRA 1-AOC10-1	AOC10-1	10:30	Using Excavator/Trenching	Southeast	5	0	0	0	0	0	None	None (default)	None (default)	
383993	9/6/2023	ERTC NTCRA 1-AOC10-1	AOC10-1	9:14	Using Excavator/Trenching	Southeast	1	0	0	0	0	0	None	None (default)	None (default)	
383996	9/6/2023	ERTC NTCRA 1-AOC10-1	AOC10-1	9:45	Other	Southeast	1	0	0	0	0	0	None	None (default)	None (default)	Aoc10-1 excavation
384001	9/6/2023	ERTC NTCRA 1-AOC10-1	AOC10-1	9:52	Other	East	2	0	0	0	0	0	None	None (default)	None (default)	

$\mu\text{g}/\text{m}^3$ = microgram(s) per cubic meter

AOC = area of concern

Avg = average

BCW = Bat cave wash

CM = Construction Manager

Cr(VI) = hexavalent chromium

ERTC = environmental release to construction

gwp = Groundwater Partners

ID = identification

L/min = liter(s) per minute

mph = mile(s) per hour

NTCRA = Non-Time Critical Removal Action

SPY = soil-processing yard

SWMU = solid waste management unit

TCS = Topock Compressor Station

Table 2-3. DustTrak Average Downwind Minus Upwind Daily Fugitive-Dust Measurements

Date	TAA	Upwind (µg/m ³)	Downwind (µg/m ³)	Downwind (µg/m ³)	Average Downwind - Upwind (µg/m ³)	Comments
2/22/2023	AOC10-2	17.6	20.3	37.8	11.5	
2/23/2023	AOC10-2	2.1	NA	1.2	0	Significant baseline drift in downwind 1 data. Data excluded.
4/13/2023	AOC10-4	3.0	3.8	9.5	3.7	
4/17/2023	AOC10-2	0	0	6.5	3.25	
4/19/2023	AOC10-2	0	9.63	6.61	8.1	
4/25/2023	SPY-Asbestos	22.4	18.5	37.4	5.6	
4/26/2023	SPY-Asbestos	13.2	23.1	7.9	2.3	
5/16/2023	AOC10-2	NA	16.2	19.5	17.9	Upwind unit malfunctioned. No data recorded.
5/24/2023	AOC10-2	19.3	21.1	11.3	0.0	
7/17/2023	AOC-9	8.3	15.2	10.1	4.4	
7/24/2023	AOC10-1	0.74	13.2	NA	12.5	Downwind 2 unit malfunctioned. No data recorded.
7/25/2023	AOC10-1	NA	35.9	16.37	26.1	Upwind unit had a malfunction. Data rejected.
7/26/2023	AOC10-1	20	22	45.9	14.0	
8/1/2023	SPY	10.3	NA	14.9	4.6	Downwind 1 mostly reading negative numbers. Data excluded
8/16/2023	SPY	5.5	11.7	32.7	16.7	
8/23/2023	AOC10-1	21.1	45.6	19	11.2	
8/25/2023	SPY	29.2	17.4	14.7	0.0	
8/29/2023	SPY	13.3	NA	15.18	1.88	Significant baseline drift in downwind 1 data. Data excluded.
8/30/2023	AOC10-1	39.5	11.3	NA	0	Downwind 2 malfunctioned and did not acquire any data. Upwind stopped recording data early.
9/6/2023	AOC10-1	6.4	54.6	25.03	33.4	Downwind 2 stopped recording data early.

AOC = area of concern

NA = not applicable

SPY = soil-processing yard

TAA = Target Action Area

Table 2-4. Fugitive-Dust Time-Weighted Averages

Survey ID	Date	Location of Ground Disturbance Activity	Elapsed Time	Count of Entry	TWA (ug/m ³)	TWA10 (ug/m ³)
260704	7/25/2022	ERTC NTCRA 1-AOC11	0.4	3	11.1	0.5
261053	7/26/2022	ERTC NTCRA 1-AOC11	4.6	7	11.9	5.5
261471	7/27/2022	ERTC NTCRA 1-SPY	6.6	5	8.6	5.7
261613	7/27/2022	ERTC NTCRA 1-AOC11	4.0	8	22.8	9.2
262002	7/28/2022	ERTC NTCRA 1-AOC11	0.3	3	86.6	2.7
262040	7/27/2022	ERTC NTCRA 1-SPY	1.4	2	4.0	0.5
262529	7/28/2022	ERTC NTCRA 1-AOC11	2.0	4	19.7	3.9
265900	8/9/2022	ERTC NTCRA 1-AOC10-3	1.9	8	21.5	4.0
265908	8/10/2022	ERTC NTCRA 1-AOC10-3	0.5	5	17.1	0.9
266074	8/10/2022	ERTC NTCRA 1-AOC10-4	0.5	4	37.4	2.0
269015	8/16/2022	ERTC NTCRA 1-AOC10-2	3.3	3	6.6	2.2
269584	8/19/2022	ERTC NTCRA 1-AOC10-2	1.0	7	96.9	9.5
269609	8/10/2022	ERTC NTCRA 1-SPY	0.4	2	0.5	0.0
269968	8/20/2022	ERTC NTCRA 1-AOC10-2	7.7	7	35.6	27.3
269972	8/21/2022	ERTC NTCRA 1-AOC10-2	6.3	25	32.0	20.0
271241	8/23/2022	ERTC NTCRA 1-AOC10-2	7.9	18	22.2	17.4
271243	8/24/2022	ERTC NTCRA 1-AOC10-2	6.8	9	14.3	9.7
274864	8/23/2022	ERTC NTCRA 1-SPY	6.0	4	1.8	1.1
274889	8/24/2022	ERTC NTCRA 1-SPY	0.2	2	1.7	0.0
274899	8/24/2022	ERTC NTCRA 1-AOC10-2	0.8	2	15.3	1.2
279172	9/14/2022	ERTC NTCRA 1-SPY	5.5	4	10.0	5.5
280066	9/14/2022	ERTC NTCRA 1-AOC11	1.6	3	16.0	2.5
280070	9/15/2022	ERTC NTCRA 1-AOC11	2.8	3	17.2	4.8
281943	9/21/2022	ERTC NTCRA 1-AOC10-2	3.1	7	38.9	12.0
282225	9/22/2022	ERTC NTCRA 1-SPY	5.4	4	24.8	13.3
282265	9/26/2022	ERTC NTCRA 1-SPY	5.1	4	7.4	3.8
282276	9/27/2022	ERTC NTCRA 1-SPY	0.1	2	3.3	0.0
283080	9/22/2022	ERTC NTCRA 1-AOC10-2	14.0	15	25.0	34.9
283107	9/23/2022	ERTC NTCRA 1-AOC10-2	4.8	5	19.0	9.1
283110	9/24/2022	ERTC NTCRA 1-AOC10-2	5.7	7	22.8	12.9
283117	9/25/2022	ERTC NTCRA 1-AOC10-2	4.4	8	14.2	6.3
283120	9/26/2022	ERTC NTCRA 1-AOC10-2	5.1	5	10.3	5.2
283335	9/27/2022	ERTC NTCRA 1-AOC10-2	7.6	9	10.1	7.7
283338	9/28/2022	ERTC NTCRA 1-AOC10-2	4.9	8	11.4	5.6
283341	9/29/2022	ERTC NTCRA 1-AOC10-2	6.4	10	16.2	10.3
283818	9/28/2022	ERTC NTCRA 1-SPY	0.1	2	1.3	0.0
283824	9/29/2022	ERTC NTCRA 1-SPY	0.5	3	4.1	0.2
285761	10/4/2022	ERTC NTCRA 1-AOC10-2	3.7	10	16.0	6.0
287127	10/4/2022	ERTC NTCRA 1-SPY	1.9	4	11.3	2.2
287135	10/5/2022	ERTC NTCRA 1-SPY	0.6	3	5.4	0.3
287159	10/7/2022	ERTC NTCRA 1-SPY	0.2	3	11.5	0.2
287167	10/9/2022	ERTC NTCRA 1-SPY	0.6	5	6.2	0.3
287174	10/10/2022	ERTC NTCRA 1-SPY	0.5	3	10.5	0.5
287193	10/12/2022	ERTC NTCRA 1-SPY	0.8	5	6.8	0.5

Table 2-4. Fugitive-Dust Time-Weighted Averages

Survey ID	Date	Location of Ground Disturbance Activity	Elapsed Time	Count of Entry	TWA (ug/m ³)	TWA10 (ug/m ³)
287365	10/5/2022	ERTC NTCRA 1-AOC10-2	7.3	10	30.3	22.0
287368	10/7/2022	ERTC NTCRA 2-SWMU1	5.7	7	25.3	14.4
287371	10/8/2022	ERTC NTCRA 2-SWMU1	6.8	6	8.0	5.4
287383	10/9/2022	ERTC NTCRA 2-SWMU1	7.3	9	13.4	9.7
287385	10/10/2022	ERTC NTCRA 2-SWMU1	6.1	6	10.8	6.6
287388	10/11/2022	ERTC NTCRA 2-SWMU1	2.2	4	6.2	1.3
287392	10/12/2022	ERTC NTCRA 2-SWMU1	6.2	7	10.4	6.4
287398	10/13/2022	ERTC NTCRA 2-SWMU1	1.9	2	10.8	2.0
291521	10/21/2022	ERTC NTCRA 2-SWMU1	4.8	4	9.5	4.6
291523	10/24/2022	ERTC NTCRA 2-SWMU1	3.9	4	14.7	5.8
291525	10/25/2022	ERTC NTCRA 2-SWMU1	3.3	4	19.4	6.5
291528	10/26/2022	ERTC NTCRA 2-SWMU1	3.0	3	6.1	1.9
293615	11/1/2022	ERTC NTCRA 1-AOC10-2	4.6	4	8.1	3.8
298153	11/2/2022	ERTC NTCRA 1-AOC10-2	5.9	4	11.1	6.5
298161	11/3/2022	ERTC NTCRA 1-AOC10-2	4.4	2	9.8	4.3
298180	11/14/2022	ERTC NTCRA 1-AOC10-2	6.1	7	10.7	6.5
298185	11/15/2022	ERTC NTCRA 1-AOC10-2	7.1	4	15.4	10.9
298186	11/16/2022	ERTC NTCRA 1-AOC10-2	1.5	3	18.0	2.7
298190	11/17/2022	ERTC NTCRA 1-AOC10-2	3.6	2	24.0	8.6
298210	11/18/2022	ERTC NTCRA 1-AOC10-2	2.1	3	7.5	1.5
300603	11/29/2022	ERTC NTCRA 1-AOC10-2	5.0	4	20.4	10.1
300613	11/30/2022	ERTC NTCRA 1-AOC10-2	4.9	4	10.6	5.2
300626	12/1/2022	ERTC NTCRA 1-AOC10-2	0.6	3	10.0	0.6
302905	12/5/2022	ERTC NTCRA 1-AOC10-2	5.1	4	0.6	0.3
302910	12/6/2022	ERTC NTCRA 1-AOC10-2	5.3	3	1.9	1.0
302921	12/7/2022	ERTC NTCRA 1-AOC10-2	0.3	3	13.7	0.5
303345	12/14/2022	ERTC NTCRA 1-SPY	4.6	2	6.8	3.1
303346	12/14/2022	ERTC NTCRA 1-AOC10-4	0.3	3	1.0	0.0
305834	12/15/2022	ERTC NTCRA 1-AOC10-4	0.1	2	3.3	0.0
305845	12/20/2022	ERTC NTCRA 1-SPY	0.0	2	7.8	0.0
306427	1/5/2023	ERTC NTCRA 1-AOC10-2	3.1	3	0.8	0.2
307360	1/6/2023	ERTC NTCRA 1-AOC10-2	0.4	3	4.0	0.2
313957	2/6/2023	ERTC NTCRA 3 AOC1-1 & AOC14	1.9	6	31.5	6.1
315200	2/7/2023	ERTC NTCRA 3 AOC1-1 & AOC14	2.1	11	46.9	9.8
315203	2/8/2023	ERTC NTCRA 3 AOC1-1 & AOC14	5.3	14	27.5	14.6
315212	2/10/2023	ERTC NTCRA 3 AOC1-1 & AOC14	2.8	5	7.2	2.0
315767	2/13/2023	ERTC NTCRA 2-SWMU1	5.0	8	9.5	4.7
315776	2/14/2023	ERTC NTCRA 3 AOC1-1 & AOC14	1.4	2	10.3	1.4
317773	2/15/2023	ERTC NTCRA 2-SWMU1	4.3	7	8.8	3.8
317775	2/16/2023	ERTC NTCRA 2-SWMU1	2.5	7	14.5	3.6
318749	2/28/2023	ERTC NTCRA 2-SWMU1	0.1	2	2.8	0.0
318815	2/27/2023	ERTC NTCRA 3 AOC1-1 & AOC14	1.2	3	4.4	0.5
332387	4/11/2023	ERTC NTCRA 1-AOC10-4	0.4	3	89.6	3.7
337245	4/28/2023	ERTC NTCRA 1-AOC10-2	0.0	2	3.0	0.0

Table 2-4. Fugitive-Dust Time-Weighted Averages

Survey ID	Date	Location of Ground Disturbance Activity	Elapsed Time	Count of Entry	TWA (ug/m ³)	TWA10 (ug/m ³)
350441	5/2/2023	ERTC NTCRA 1-AOC10-2	0.6	3	19.9	1.2
350487	5/18/2023	ERTC NTCRA 1-AOC10-4	0.3	3	12.5	0.4
350488	5/19/2023	ERTC NTCRA 1-AOC10-4	0.3	2	14.8	0.4
364297	6/20/2023	ERTC NTCRA 2-SWMU1	0.6	3	5.1	0.3
364305	6/21/2023	ERTC NTCRA 2-SWMU1	5.3	6	2.4	1.3
364319	6/26/2023	ERTC NTCRA 1-SPY	0.2	2	1.7	0.0
364320	6/26/2023	ERTC NTCRA 2-SWMU1	0.7	4	9.6	0.6
364338	6/29/2023	ERTC NTCRA 2-SWMU1	0.4	3	4.9	0.2
371863	7/13/2023	ERTC NTCRA 1-AOC9	0.3	2	8.0	0.2
371866	7/14/2023	ERTC NTCRA 1-AOC10-1	0.6	3	0.7	0.0
374344	7/20/2023	ERTC NTCRA 1-AOC10-1	4.3	5	25.4	10.9
374350	7/21/2023	ERTC NTCRA 1-AOC10-1	0.6	3	15.0	0.9
374367	7/26/2023	ERTC NTCRA 1-AOC10-1	4.1	3	44.2	18.1
374372	7/27/2023	ERTC NTCRA 1-AOC10-1	0.4	2	6.5	0.2

AOC = area of concern

ERTC = environmental release to construction

ID = identification

NTCRA = Non-Time Critical Removal Action

SPY = soil-processing yard

SWMU = solid waste management unit

TWA = time-weighted average over elapsed time

TWA10 = 10-hour time-weighted average over a 10-hour period

Table 2-5. Average Daily Wind Speed and Fugitive-Dust Measurements

Date	Unit	TAA	Unit Name	Average Daily Wind Speed (mph)	Average Daily Fugitive Dust Measurement ($\mu\text{g}/\text{m}^3$)	Received Notification of An Instantaneous Exceedance of 100 $\mu\text{g}/\text{m}^3$
07-Sep-23	1216	SPY	SPY1	3.5	2.01	No
07-Sep-23	1309	SPY	SPY2	3.5	10.65	Yes
07-Sep-23	1687	SPY	SPY3	3.5	2.13	No
11-Sep-23	1216	SPY	SPY1	4.0	2.1	No
11-Sep-23	1309	SPY	SPY2	4.0	4	No
11-Sep-23	1687	SPY	SPY3	4.0	1.56	No
12-Sep-23	1216	SPY	SPY1	2.7	3.75	No
12-Sep-23	1309	SPY	SPY2	2.7	7.86	No
12-Sep-23	1687	SPY	SPY3	2.7	2.92	No
13-Sep-23	1216	SPY	SPY1	2.7	5.58	No
13-Sep-23	1309	SPY	SPY2	2.7	7.76	No
13-Sep-23	1687	SPY	SPY3	2.7	4.47	No
14-Sep-23	1216	SPY	SPY1	2.5	2.5	No
14-Sep-23	1309	SPY	SPY2	2.5	13.68	Yes
14-Sep-23	1687	SPY	SPY3	2.5	2.61	No
19-Sep-23	1216	SPY	SPY1	2.6	4.3	No
19-Sep-23	1309	SPY	SPY2	2.6	47.34	Yes
19-Sep-23	1687	SPY	SPY3	2.6	8.42	Yes
20-Sep-23	1216	SPY	SPY1	4.1	4.5	No
20-Sep-23	1309	SPY	SPY2	4.1	17.76	Yes
20-Sep-23	1687	SPY	SPY3	4.1	7.12	No
21-Sep-23	1216	SPY	SPY1	4.1	6.14	No
21-Sep-23	1309	SPY	SPY2	4.1	39.67	Yes
21-Sep-23	1687	SPY	SPY3	4.1	6.48	No
25-Sep-23	1216	SPY	SPY1	NA	2.49	No
25-Sep-23	1309	SPY	SPY2	NA	13.07	No
25-Sep-23	1687	SPY	SPY3	NA	3.72	No
26-Sep-23	1216	SPY	SPY1	3.3	2.39	No
26-Sep-23	1309	SPY	SPY2	3.3	8.31	Yes
26-Sep-23	1687	SPY	SPY3	3.3	2.62	No
27-Sep-23	1687	SPY	SPY3	1.8	2.08	No
27-Sep-23	2382	SWMU1	Topock1	1.8	3.19	No
27-Sep-23	2383	SWMU1	Topock2	1.8	2.65	No
27-Sep-23	2384	SWMU1	Topock3	1.8	2.16	No
28-Sep-23	1687	SWMU1	Topock2a	2.8	3.48	No
28-Sep-23	2382	SWMU1	Topock1	2.8	4.25	No
28-Sep-23	2384	SWMU1	Topock3	2.8	4.1	No
02-Oct-23	1687	SWMU1	Topock2a	2.1	1.23	No
02-Oct-23	2382	SWMU1	Topock1	2.1	1.81	No
02-Oct-23	2383	SWMU1	Changed name to	2.1	1.37	No

Table 2-5. Average Daily Wind Speed and Fugitive-Dust Measurements

Date	Unit	TAA	Unit Name	Average Daily Wind Speed (mph)	Average Daily Fugitive Dust Measurement ($\mu\text{g}/\text{m}^3$)	Received Notification of An Instantaneous Exceedance of 100 $\mu\text{g}/\text{m}^3$
02-Oct-23	2384	SWMU1	Topock3	2.1	1.9	No
03-Oct-23	2383	SWMU1	Changed name to	3.4	0.98	No
04-Oct-23	1216	SPY	SPY1	6.4	10.91	No
04-Oct-23	1309	SPY	SPY2	6.4	0	No
04-Oct-23	1687	SWMU1	Topock2a	6.4	3.22	No
04-Oct-23	2382	SWMU1	Topock1	6.4	4.34	No
04-Oct-23	2383	SPY	SPY3a	6.4	3.25	No
04-Oct-23	2384	SWMU1	Topock3	6.4	3.4	No
05-Oct-23	1216	SPY	SPY1	5.8	7.25	No
05-Oct-23	1309	SPY	SPY2	5.8	0	No
05-Oct-23	1687	SWMU1	Topock2a	5.8	2.09	No
05-Oct-23	2382	SWMU1	Topock1	5.8	3.65	No
05-Oct-23	2383	SPY	SPY3a	5.8	2.41	No
05-Oct-23	2384	SWMU1	Topock3	5.8	1.88	No
09-Oct-23	1216	SPY	SPY1	2.1	5.59	No
09-Oct-23	1309	SPY	SPY2	2.1	3.25	No
09-Oct-23	1687	AOC27	Topock2a	2.1	2.4	No
09-Oct-23	2382	AOC27	Topock1	2.1	3.03	No
09-Oct-23	2383	SPY	SPY3a	2.1	5.04	No
09-Oct-23	2384	AOC27	Topock3	2.1	2.28	No
10-Oct-23	1216	SPY	SPY1	3.9	2.62	No
10-Oct-23	1309	SPY	SPY2	3.9	8.57	No
10-Oct-23	1687	AOC27	Topock2a	3.9	2.14	No
10-Oct-23	2382	AOC27	Topock1	3.9	3.51	No
10-Oct-23	2383	SPY	SPY3a	3.9	3.57	No
10-Oct-23	2384	AOC27	Topock3	3.9	3.21	No
11-Oct-23	1216	SPY	SPY1	3.7	8.7	No
11-Oct-23	1309	SPY	SPY2	3.7	17.3	No
11-Oct-23	1687	AOC27	Topock2a	3.7	7.42	No
11-Oct-23	2383	SPY	SPY3a	3.7	9.24	No
11-Oct-23	2384	AOC27	Topock3	3.7	7.85	No
13-Oct-23	1216	SPY	SPY1	3.3	1.92	No
13-Oct-23	1309	SPY	SPY2	3.3	3.92	No
13-Oct-23	2383	SPY	SPY3a	3.3	1.62	No
17-Oct-23	1216	SPY	SPY1	1.5	6.1	No
17-Oct-23	1309	SPY	SPY2	1.5	9.76	No
17-Oct-23	2382	AOC1-2	Topock1	1.5	5.36	No
17-Oct-23	2383	SPY	SPY3a	1.5	4.51	No
17-Oct-23	2384	AOC1-2	Topock3	1.5	3.44	No
18-Oct-23	1216	SPY	SPY1	1.7	4.76	No

Table 2-5. Average Daily Wind Speed and Fugitive-Dust Measurements

Date	Unit	TAA	Unit Name	Average Daily Wind Speed (mph)	Average Daily Fugitive Dust Measurement ($\mu\text{g}/\text{m}^3$)	Received Notification of An Instantaneous Exceedance of 100 $\mu\text{g}/\text{m}^3$
18-Oct-23	1309	SPY	SPY2	1.7	8.44	Yes
18-Oct-23	1687	AOC1-1	Topock2a	1.7	3.2	No
18-Oct-23	2382	AOC1-2	Topock1	1.7	3.81	No
18-Oct-23	2383	SPY	SPY3a	1.7	3.33	No
18-Oct-23	2384	AOC1-2	Topock3	1.7	3.11	No
19-Oct-23	1216	SPY	SPY1	2.0	3.81	No
19-Oct-23	1309	SPY	SPY2	2.0	6.31	No
19-Oct-23	1687	AOC1-1	Topock2a	2.0	2.44	No
19-Oct-23	2382	SWMU1-1	Topock1	2.0	5.53	No
19-Oct-23	2383	SPY	SPY3a	2.0	3.01	No
19-Oct-23	2384	AOC1-2	Topock3	2.0	2.44	No
23-Oct-23	1216	SPY	SPY1	1.8	6.55	No
23-Oct-23	1309	SPY	SPY2	1.8	12.01	No
23-Oct-23	2382	SWMU1-1	Topock1	1.8	7.68	No
23-Oct-23	2383	SPY	SPY3a	1.8	6.06	No
23-Oct-23	2384	AOC1-2	Topock3	1.8	5.8	No
24-Oct-23	1216	SPY	SPY1	1.4	3.41	No
24-Oct-23	1309	SPY	SPY2	1.4	7.91	No
24-Oct-23	2383	SPY	SPY3a	1.4	3.95	No
25-Oct-23	1216	SPY	SPY1	4.1	3.4	No
25-Oct-23	1309	SPY	SPY2	4.1	12.72	No
25-Oct-23	2382	SWMU1-1	Topock1	4.1	3.42	No
25-Oct-23	2383	SPY	SPY3a	4.1	4.02	No
25-Oct-23	2384	AOC1-2	Topock3	4.1	3.77	No
30-Oct-23	1216	SPY	SPY1	8.9	4.64	No
30-Oct-23	1309	SPY	SPY2	8.9	7.52	No
30-Oct-23	2382	SWMU1-1	Topock1	8.9	5.19	No
30-Oct-23	2383	SPY	SPY3a	8.9	2.97	No
30-Oct-23	2384	AOC1-2	Topock3	8.9	2.87	No
31-Oct-23	1216	SPY	SPY1	4.4	3.23	No
31-Oct-23	1309	SPY	SPY2	4.4	5.65	No
31-Oct-23	2382	SWMU1-1	Topock1	4.4	3.99	No
31-Oct-23	2383	SPY	SPY3a	4.4	2.37	No
31-Oct-23	2384	AOC1-2	Topock3	4.4	1.61	No
01-Nov-23	1216	SPY	SPY1	1.6	3.49	No
01-Nov-23	1309	SPY	SPY2	1.6	7.83	No
01-Nov-23	2382	SWMU1-1	Topock1	1.6	3.98	No
01-Nov-23	2383	SPY	SPY3a	1.6	3.52	No
01-Nov-23	2384	AOC1-2	Topock3	1.6	2.6	No
02-Nov-23	1216	SPY	SPY1	1.5	5.64	No

Table 2-5. Average Daily Wind Speed and Fugitive-Dust Measurements

Date	Unit	TAA	Unit Name	Average Daily Wind Speed (mph)	Average Daily Fugitive Dust Measurement ($\mu\text{g}/\text{m}^3$)	Received Notification of An Instantaneous Exceedance of 100 $\mu\text{g}/\text{m}^3$
02-Nov-23	1309	SPY	SPY2	1.5	10.49	No
02-Nov-23	2382	SWMU1-1	Topock1	1.5	5	No
02-Nov-23	2383	SPY	SPY3a	1.5	4.79	No
02-Nov-23	2384	AOC1-2	Topock3	1.5	4.02	No
03-Nov-23	1216	SPY	SPY1	1.4	4.42	No
03-Nov-23	1309	SPY	SPY2	1.4	11.42	No
03-Nov-23	2383	SPY	SPY3a	1.4	5.44	No
04-Nov-23	1216	SPY	SPY1	1.8	4.11	No
04-Nov-23	1309	SPY	SPY2	1.8	8.82	No
04-Nov-23	2383	SPY	SPY3a	1.8	4.18	No
06-Nov-23	1216	SPY	SPY1	2.2	3.04	No
06-Nov-23	1309	SPY	SPY2	2.2	7.17	No
07-Nov-23	1216	SPY	SPY1	2.8	2.31	No
07-Nov-23	1309	SPY	SPY2	2.8	6.57	No
07-Nov-23	1573A	AOC14-1	Topock4	2.8	3.24	No
07-Nov-23	1687	AOC14-1	Topock2a	2.8	3.01	No
07-Nov-23	2382	SWMU1-1	Topock1	2.8	3.22	No
07-Nov-23	2383	AOC14-1	SPY3a	2.8	3.6	No
07-Nov-23	2384	AOC1-2	Topock3	2.8	2.78	No
08-Nov-23	1216	SPY	SPY1	7.6	13.21	No
08-Nov-23	1309	SPY	SPY2	7.6	7.46	No
08-Nov-23	1573A	AOC14-1	Topock4	7.6	2.93	No
08-Nov-23	1687	AOC14-1	Topock2a	7.6	2.36	No
08-Nov-23	2382	SWMU1-1	Topock1	7.6	3.63	No
08-Nov-23	2383	AOC14-1	SPY3a	7.6	2.99	No
08-Nov-23	2384	AOC1-2	Topock3	7.6	2.72	No
09-Nov-23	1216	SPY	SPY1	8.7	6.46	No
09-Nov-23	1309	SPY	SPY2	8.7	5.17	No
09-Nov-23	1573A	AOC14-1	Topock4	8.7	2	No
09-Nov-23	1687	AOC14-1	Topock2a	8.7	1.77	No
09-Nov-23	2382	SWMU1-1	Topock1	8.7	2.39	No
09-Nov-23	2383	AOC14-1	SPY3a	8.7	2.04	No
09-Nov-23	2384	AOC1-2	Topock3	8.7	1.8	No
10-Nov-23	1309	SPY	SPY2	3.5	3.81	No
10-Nov-23	1573A	AOC14-1	Topock4	3.5	2.13	No
10-Nov-23	1687	AOC14-1	Topock2a	3.5	1.64	No
10-Nov-23	2382	SWMU1-1	Topock1	3.5	2.31	No
10-Nov-23	2383	AOC14-1	SPY3a	3.5	2.13	No
10-Nov-23	2384	AOC1-2	Topock3	3.5	1.36	No
11-Nov-23	1573A	AOC14-1	Topock4	3.5	3.02	No

Table 2-5. Average Daily Wind Speed and Fugitive-Dust Measurements

Date	Unit	TAA	Unit Name	Average Daily Wind Speed (mph)	Average Daily Fugitive Dust Measurement ($\mu\text{g}/\text{m}^3$)	Received Notification of An Instantaneous Exceedance of 100 $\mu\text{g}/\text{m}^3$
11-Nov-23	2383	AOC14-1	SPY3a	3.5	3.02	No
12-Nov-23	1573A	AOC14-1	Topock4	2.0	3.47	No
12-Nov-23	2383	AOC14-1	SPY3a	2.0	3.52	No
13-Nov-23	1216	SPY	SPY1	1.0	3.95	No
13-Nov-23	1309	SPY	SPY2	1.0	10.8	No
13-Nov-23	1573A	AOC14-1	Topock4	1.0	4.22	No
13-Nov-23	1687	AOC14-1	Topock2a	1.0	4.15	No
13-Nov-23	2382	SWMU1-1	Topock1	1.0	4.86	No
13-Nov-23	2383	AOC14-1	SPY3a	1.0	4.5	No
13-Nov-23	2384	AOC1-2	Topock3	1.0	3.13	No
14-Nov-23	1216	SPY	SPY1	0.8	3.79	No
14-Nov-23	1309	SPY	SPY2	0.8	8.8	No
14-Nov-23	1573A	AOC14-1	Topock4	0.8	4.16	No
14-Nov-23	1687	AOC14-1	Topock2a	0.8	3.83	No
14-Nov-23	2383	AOC14-1	SPY3a	0.8	4.43	No
15-Nov-23	1216	SPY	SPY1	1.2	3.35	No
15-Nov-23	1573A	AOC14-1	Topock4	1.2	3.73	No
15-Nov-23	1687	AOC14-1	Topock2a	1.2	34.36	No
15-Nov-23	2383	AOC14-1	SPY3a	1.2	3.89	No
16-Nov-23	1216	SPY	SPY1	1.4	1.95	No
16-Nov-23	1309	SPY	SPY2	1.4	3.91	No
16-Nov-23	1573A	AOC14-1	Topock4	1.4	2.69	No
16-Nov-23	1687	AOC14-1	Topock2a	1.4	11.71	No
16-Nov-23	2383	AOC14-1	SPY3a	1.4	2.7	No
17-Nov-23	1216	SPY	SPY1	1.7	1.58	No
17-Nov-23	1309	SPY	SPY2	1.7	6.01	No
20-Nov-23	1216	SPY	SPY1	10.3	21.67	No
20-Nov-23	1309	SPY	SPY2	10.3	9.8	No
21-Nov-23	1309	SPY	SPY2	4.8	2.58	No
27-Nov-23	1216	SPY	SPY1	5.3	3.34	No
27-Nov-23	1309	SPY	SPY2	5.3	3.34	No
27-Nov-23	2382	SWMU1-2	Topock1	5.3	1.47	No
27-Nov-23	2384	SWMU1-2	Topock3	5.3	1.23	No
28-Nov-23	1216	SPY	SPY1	4.4	2.62	No
28-Nov-23	1309	SPY	SPY2	4.4	3.12	No
28-Nov-23	2382	SWMU1-2	Topock1	4.4	1.88	No
28-Nov-23	2384	SWMU1-2	Topock3	4.4	1.35	No
29-Nov-23	1216	SPY	SPY1	0.8	3.02	No
29-Nov-23	1309	SPY	SPY2	0.8	3.85	No
29-Nov-23	2382	SWMU1-2	Topock1	0.8	2.9	No

Table 2-5. Average Daily Wind Speed and Fugitive-Dust Measurements

Date	Unit	TAA	Unit Name	Average Daily Wind Speed (mph)	Average Daily Fugitive Dust Measurement ($\mu\text{g}/\text{m}^3$)	Received Notification of An Instantaneous Exceedance of 100 $\mu\text{g}/\text{m}^3$
29-Nov-23	2383	SWMU1-2	SPY3a	0.8	2.84	No
29-Nov-23	2384	SWMU1-2	Topock3	0.8	2.88	No
30-Nov-23	1216	SPY	SPY1	2.6	2.94	No
30-Nov-23	2382	SWMU1-2	Topock1	2.6	3	No
30-Nov-23	2383	SWMU1-2	SPY3a	2.6	2.91	No
30-Nov-23	2384	SWMU1-2	Topock3	2.6	2.56	No
01-Dec-23	1216	SPY	SPY1	1.5	1.5	No
01-Dec-23	1309	SPY	SPY2	1.5	4.13	No
01-Dec-23	2382	SWMU1-2	Topock1	1.5	3.31	Yes
01-Dec-23	2383	SWMU1-2	SPY3a	1.5	1.86	No
02-Dec-23	1216	SPY	SPY1	1.9	1.92	No
02-Dec-23	1309	SPY	SPY2	1.9	4.81	No
02-Dec-23	2382	SWMU1-2	Topock1	1.9	2.39	No
02-Dec-23	2383	SWMU1-2	SPY3a	1.9	1.77	No
03-Dec-23	1216	SPY	SPY1	0.4	1.95	No
03-Dec-23	1309	SPY	SPY2	0.4	5.9	No
03-Dec-23	2382	SWMU1-2	Topock1	0.4	2.51	No
03-Dec-23	2383	SWMU1-2	SPY3a	0.4	0.59	No
04-Dec-23	1216	SPY	SPY1	3.1	2.1	No
04-Dec-23	1309	SPY	SPY2	3.1	4.58	No
04-Dec-23	2382	SWMU1-2	Topock1	3.1	2.53	No
04-Dec-23	2383	SWMU1-2	SPY3a	3.1	2.15	No
04-Dec-23	2384	SWMU1-2	Topock3	3.1	2.79	No
05-Dec-23	1216	SPY	SPY1	2.7	1.57	No
05-Dec-23	1309	SPY	SPY2	2.7	4.24	No
05-Dec-23	2382	SWMU1-2	Topock1	2.7	2.11	No
05-Dec-23	2383	SWMU1-2	SPY3a	2.7	2.04	No
05-Dec-23	2384	SWMU1-2	Topock3	2.7	1.95	No
06-Dec-23	1216	SPY	SPY1	1.4	2.33	No
06-Dec-23	2382	SWMU1-2	Topock1	1.4	3.6	No
06-Dec-23	2383	SWMU1-2	SPY3a	1.4	2.11	No
06-Dec-23	2384	SWMU1-2	Topock3	1.4	2.06	No
07-Dec-23	1216	SPY	SPY1	0.8	2.91	No
07-Dec-23	1309	SPY	SPY2	0.8	7.72	Yes
07-Dec-23	2382	SWMU1-2	Topock1	0.8	2.78	No
07-Dec-23	2383	SWMU1-2	SPY3a	0.8	2.35	No
07-Dec-23	2384	SWMU1-2	Topock3	0.8	2.81	No
08-Dec-23	1216	SPY	SPY1	3.8	8.08	No
08-Dec-23	1309	SPY	SPY2	3.8	6.44	No
08-Dec-23	2382	SWMU1-2	Topock1	3.8	4.19	No

Table 2-5. Average Daily Wind Speed and Fugitive-Dust Measurements

Date	Unit	TAA	Unit Name	Average Daily Wind Speed (mph)	Average Daily Fugitive Dust Measurement ($\mu\text{g}/\text{m}^3$)	Received Notification of An Instantaneous Exceedance of 100 $\mu\text{g}/\text{m}^3$
08-Dec-23	2383	SWMU1-2	SPY3a	3.8	3.32	No
08-Dec-23	2384	SWMU1-2	Topock3	3.8	3.25	No
11-Dec-23	1216	SPY	SPY1	1.3	2	No
11-Dec-23	1309	SPY	SPY2	1.3	4.51	No
11-Dec-23	2382	SWMU1-2	Topock1	1.3	2.94	No
11-Dec-23	2384	SWMU1-2	Topock3	1.3	2.81	No
12-Dec-23	1216	SPY	SPY1	1.3	2.79	No
12-Dec-23	1309	SPY	SPY2	1.3	5.87	No
12-Dec-23	2382	SWMU1-2	Topock1	1.3	3.2	No
12-Dec-23	2384	SWMU1-2	Topock3	1.3	3.19	No
13-Dec-23	1216	SPY	SPY1	4.8	2.35	No
13-Dec-23	1309	SPY	SPY2	4.8	4.6	No
13-Dec-23	2382	SWMU1-2	Topock1	4.8	2.73	No
13-Dec-23	2383	SWMU1-2	SPY3a	4.8	2.87	No
13-Dec-23	2384	SWMU1-2	Topock3	4.8	2.04	No
14-Dec-23	1216	SPY	SPY1	3.8	1.98	No
14-Dec-23	1309	SPY	SPY2	3.8	4.07	No
14-Dec-23	2382	SWMU1-2	Topock1	3.8	2.55	No
14-Dec-23	2383	SWMU1-2	SPY3a	3.8	1.98	No
14-Dec-23	2384	SWMU1-2	Topock3	3.8	2.73	No
15-Dec-23	1216	SPY	SPY1	6.0	2.5	No
15-Dec-23	1309	SPY	SPY2	6.0	5.47	No
15-Dec-23	2382	SWMU1-2	Topock1	6.0	2.75	No
15-Dec-23	2383	SWMU1-2	SPY3a	6.0	2.44	No
15-Dec-23	2384	SWMU1-2	Topock3	6.0	2.17	No
18-Dec-23	1216	SPY	SPY1	1.3	4.48	No
18-Dec-23	1309	SPY	SPY2	1.3	6.63	No
18-Dec-23	2382	SWMU1-2	Topock1	1.3	3.99	No
18-Dec-23	2384	SWMU1-2	Topock3	1.3	3.16	No
19-Dec-23	1216	SPY	SPY1	0.3	2.95	No
19-Dec-23	1309	SPY	SPY2	0.3	7.24	No
19-Dec-23	2382	SWMU1-2	Topock1	0.3	4.37	No
19-Dec-23	2384	SWMU1-2	Topock3	0.3	4.81	Yes
20-Dec-23	1216	SPY	SPY1	0.5	3.25	No
20-Dec-23	1309	SPY	SPY2	0.5	7.01	No
08-Jan-24	1216	SPY	SPY1	5.9	3.88	No
08-Jan-24	1309	SPY	SPY2	5.9	3.56	No
09-Jan-24	1216	SPY	SPY1	1.3	1.48	No
09-Jan-24	1309	SPY	SPY2	1.3	2.05	No
10-Jan-24	1216	SPY	SPY1	4.3	2.13	No

Table 2-5. Average Daily Wind Speed and Fugitive-Dust Measurements

Date	Unit	TAA	Unit Name	Average Daily Wind Speed (mph)	Average Daily Fugitive Dust Measurement ($\mu\text{g}/\text{m}^3$)	Received Notification of An Instantaneous Exceedance of 100 $\mu\text{g}/\text{m}^3$
10-Jan-24	1309	SPY	SPY2	4.3	9.66	Yes
11-Jan-24	1216	SPY	SPY1	5.1	4.65	No
11-Jan-24	1309	SPY	SPY2	5.1	4.43	No
12-Jan-24	1216	SPY	SPY1	2.5	0.36	No
12-Jan-24	1309	SPY	SPY2	2.5	2.69	No
15-Jan-24	1216	SPY	SPY1	3.1	2.2	No
15-Jan-24	1309	SPY	SPY2	3.1	3.6	No
16-Jan-24	1216	SPY	SPY1	2.4	1.59	No
16-Jan-24	1309	SPY	SPY2	2.4	3.17	No
17-Jan-24	1216	SPY	SPY1	2.8	1.85	No
17-Jan-24	1309	SPY	SPY2	2.8	5.4	No
18-Jan-24	1216	SPY	SPY1	2.2	2.99	No
18-Jan-24	1309	SPY	SPY2	2.2	5.23	No
19-Jan-24	1216	SPY	SPY1	1.6	2.29	No
19-Jan-24	1309	SPY	SPY2	1.6	5.66	No
24-Jan-24	1216	SPY	SPY1	1.7	0	No
24-Jan-24	1309	SPY	SPY2	1.7	2.42	No
25-Jan-24	1216	SPY	SPY1	2.5	0.38	No
25-Jan-24	1309	SPY	SPY2	2.5	2.02	No
29-Jan-24	1216	SPY	SPY1	2.7	1.18	No
29-Jan-24	1309	SPY	SPY2	2.7	2.17	No
30-Jan-24	1216	SPY	SPY1	1.0	1.06	No
30-Jan-24	1309	SPY	SPY2	1.0	2.34	No
31-Jan-24	1216	SPY	SPY1	1.6	1.32	No
31-Jan-24	1309	SPY	SPY2	1.6	3.47	No
01-Feb-24	1216	SPY	SPY1	4.0	1.54	No
01-Feb-24	1309	SPY	SPY2	4.0	3.54	No
05-Feb-24	1216	SPY	SPY1	1.6	1.34	No
05-Feb-24	1309	SPY	SPY2	1.6	4.41	No
06-Feb-24	1216	SPY	SPY1	4.2	0.97	No
06-Feb-24	1309	SPY	SPY2	4.2	2.47	No
13-Feb-24	1216	SPY	SPY1	NA	1.35	No
13-Feb-24	1309	SPY	SPY2	NA	1.96	No
14-Feb-24	1309	SPY	SPY2	NA	2.3	No
20-Feb-24	1216	SPY	SPY1	4.3	1.56	No
20-Feb-24	1309	SPY	SPY2	4.3	3.57	No
21-Feb-24	1216	SPY	SPY1	2.3	0.97	No
21-Feb-24	1309	SPY	SPY2	2.3	1.6	No
22-Feb-24	1216	SPY	SPY1	3.0	2.75	No
22-Feb-24	1309	SPY	SPY2	3.0	11.45	Yes

Table 2-5. Average Daily Wind Speed and Fugitive-Dust Measurements

Date	Unit	TAA	Unit Name	Average Daily Wind Speed (mph)	Average Daily Fugitive Dust Measurement ($\mu\text{g}/\text{m}^3$)	Received Notification of An Instantaneous Exceedance of 100 $\mu\text{g}/\text{m}^3$
23-Feb-24	1216	SPY	SPY1	5.6	0.34	No
27-Feb-24	1216	SPY	SPY1	2.5	1.5	No
27-Feb-24	1309	SPY	SPY2	2.5	3.91	No
28-Feb-24	1216	SPY	SPY1	4.5	1.67	No
28-Feb-24	1309	SPY	SPY2	4.5	2.53	No
29-Feb-24	1216	SPY	SPY1	4.1	2.5	No
29-Feb-24	1309	SPY	SPY2	4.1	5.92	No
01-Mar-24	1216	SPY	SPY1	5.5	2.42	No
01-Mar-24	1309	SPY	SPY2	5.5	6.21	No
05-Mar-24	1216	SPY	SPY1	2.8	1.93	No
05-Mar-24	1309	SPY	SPY2	2.8	4.78	No
06-Mar-24	1216	SPY	SPY1	5.1	2.98	No
06-Mar-24	1309	SPY	SPY2	5.1	5.78	No
11-Mar-24	1216	SPY	SPY1	2.7	1.99	No
11-Mar-24	1309	SPY	SPY2	2.7	4.31	No
12-Mar-24	1216	SPY	SPY1	2.4	1.95	No
12-Mar-24	1309	SPY	SPY2	2.4	4.33	No
14-Mar-24	1216	SPY	SPY1	7.2	2.45	No
14-Mar-24	1309	SPY	SPY2	7.2	4.26	No
15-Mar-24	1216	SPY	SPY1	3.9	1.06	No
15-Mar-24	1309	SPY	SPY2	3.9	2.61	No
18-Mar-24	1216	SPY	SPY1	3.5	1.09	No
18-Mar-24	1309	SPY	SPY2	3.5	2.71	No
19-Mar-24	1216	SPY	SPY1	1.6	1.34	No
19-Mar-24	1309	SPY	SPY2	1.6	2.95	No
20-Mar-24	1216	SPY	SPY1	2.1	1.77	Yes
20-Mar-24	1309	SPY	SPY2	2.1	5.62	No
21-Mar-24	1216	SPY	SPY1	3.7	1.68	No
21-Mar-24	1309	SPY	SPY2	3.7	4.57	Yes
22-Mar-24	1216	SPY	SPY1	3.3	2.41	No
22-Mar-24	1309	SPY	SPY2	3.3	5.16	No
26-Mar-24	1216	SPY	SPY1	3.3	1.51	No
26-Mar-24	1309	SPY	SPY2	3.3	6.41	No
27-Mar-24	1216	SPY	SPY1	3.3	1.47	No
27-Mar-24	1309	SPY	SPY2	3.3	4.95	No
28-Mar-24	1216	SPY	SPY1	4.8	2.92	No
28-Mar-24	1309	SPY	SPY2	4.8	6.51	No
03-Apr-24	1216	SPY	SPY1	3.2	0.81	No
04-Apr-24	1216	SPY	SPY1	7.5	0.89	No
08-Apr-24	1216	SPY	SPY1	7.2	2.04	No

Table 2-5. Average Daily Wind Speed and Fugitive-Dust Measurements

Date	Unit	TAA	Unit Name	Average Daily Wind Speed (mph)	Average Daily Fugitive Dust Measurement ($\mu\text{g}/\text{m}^3$)	Received Notification of An Instantaneous Exceedance of 100 $\mu\text{g}/\text{m}^3$
08-Apr-24	1309	SPY	SPY2	7.2	6.05	No
09-Apr-24	1216	SPY	SPY1	6.8	1.94	No
09-Apr-24	1309	SPY	SPY2	6.8	3.62	No
10-Apr-24	1216	SPY	SPY1	4.4	2.56	No
10-Apr-24	1309	SPY	SPY2	4.4	5.21	No
11-Apr-24	1216	SPY	SPY1	2.0	3.03	No
11-Apr-24	1309	SPY	SPY2	2.0	6.2	No
12-Apr-24	1216	SPY	SPY1	4.7	3.23	No
12-Apr-24	1309	SPY	SPY2	4.7	6.43	No
16-Apr-24	1216	SPY	SPY1	1.9	1.21	No
16-Apr-24	1309	SPY	SPY2	1.9	3.04	No
17-Apr-24	1216	SPY	SPY1	3.4	1.77	No
17-Apr-24	1309	SPY	SPY2	3.4	9.19	Yes
18-Apr-24	1216	SPY	SPY1	4.5	1.83	No
18-Apr-24	1309	SPY	SPY2	4.5	5.22	Yes
19-Apr-24	1216	SPY	SPY1	3.6	1.8	No
19-Apr-24	1309	SPY	SPY2	3.6	4.57	No

$\mu\text{g}/\text{m}^3$ = microgram(s) per cubic meter

AOC = area of concern

mph = mile(s) per hour

SPY = soil-processing yard

SWMU = solid waste management unit

TAA = Target Action Area

Table 2-6. Aeroqual Dust Sentry Monitors Average Daily Downwind Minus Upwind Fugitive Dust Calculations

Date	TAA	Count of Locations	Average Downwind 1 (µg/m ³)	Average Downwind 2 (µg/m ³)	Average Downwind (µg/m ³)	Average Upwind (µg/m ³)	Downwind - Upwind (µg/m ³)
07-Sep-23	SPY	3	10.65	2.13	6.39	2.01	4.38
11-Sep-23	SPY	3	4	1.56	2.78	2.10	0.68
12-Sep-23	SPY	3	7.86	2.92	5.39	3.75	1.64
13-Sep-23	SPY	3	7.76	4.47	6.12	5.58	0.54
14-Sep-23	SPY	3	13.68	2.61	8.15	2.50	5.65
19-Sep-23	SPY	3	47.34	8.42	27.88	4.30	23.58
20-Sep-23	SPY	3	17.76	7.12	12.44	4.50	7.94
21-Sep-23	SPY	3	39.67	6.48	23.08	6.14	16.94
25-Sep-23	SPY	3	13.07	3.72	8.40	2.49	5.91
26-Sep-23	SPY	3	8.31	2.62	5.47	2.39	3.08
27-Sep-23	SPY	1	2.08	NA	2.08	NA	2.08
27-Sep-23	SWMU1	3	2.65	2.16	2.41	3.19	-0.79
28-Sep-23	SWMU1	3	3.48	4.1	3.79	4.25	-0.46
02-Oct-23	SWMU1	4	1.37	1.23 and 1.9	1.50	1.81	-0.31
03-Oct-23	SWMU1	1	0.98	NA	0.98	NA	0.98
04-Oct-23	SPY	3	10.91	-5.71	2.60	3.25	-0.65
04-Oct-23	SWMU1	3	4.34	3.4	3.87	3.22	0.65
05-Oct-23	SPY	3	7.25	-9.72	-1.24	2.41	-3.65
05-Oct-23	SWMU1	3	3.65	1.88	2.77	2.09	0.68
09-Oct-23	AOC27	3	2.4	2.28	2.34	3.03	-0.69
09-Oct-23	SPY	3	3.25	5.04	4.15	5.59	-1.45
10-Oct-23	AOC27	3	2.14	3.21	2.68	3.51	-0.84
10-Oct-23	SPY	3	8.57	3.57	6.07	2.62	3.45
11-Oct-23	AOC27	2	7.85	NA	7.85	7.42	0.43
11-Oct-23	SPY	3	17.3	9.24	13.27	8.70	4.57
13-Oct-23	SPY	3	3.92	1.62	2.77	1.92	0.85
17-Oct-23	AOC1-2	2	3.44	NA	3.44	5.36	-1.92
17-Oct-23	SPY	3	9.76	4.51	7.14	6.10	1.04
18-Oct-23	AOC1-1	1	3.2	NA	3.20	NA	3.20
18-Oct-23	AOC1-2	2	3.11	NA	3.11	3.81	-0.70
18-Oct-23	SPY	3	8.44	3.33	5.89	4.76	1.13
19-Oct-23	AOC1-1	1	2.44	NA	2.44	NA	2.44
19-Oct-23	AOC1-2	1	2.44	NA	2.44	NA	2.44
19-Oct-23	SPY	3	6.31	3.01	4.66	3.81	0.85
19-Oct-23	SWMU1-1	1	5.53	NA	5.53	NA	5.53
23-Oct-23	AOC1-2	1	5.8	NA	5.80	NA	5.80
23-Oct-23	SPY	3	12.01	6.06	9.04	6.55	2.49
23-Oct-23	SWMU1-1	1	7.68	NA	7.68	NA	7.68
24-Oct-23	SPY	3	7.91	3.95	5.93	3.41	2.52
25-Oct-23	AOC1-2	1	3.77	NA	3.77	NA	3.77
25-Oct-23	SPY	3	12.72	4.02	8.37	3.40	4.97
25-Oct-23	SWMU1-1	1	3.42	NA	3.42	NA	3.42
30-Oct-23	AOC1-2	1	2.87	NA	2.87	NA	2.87

Table 2-6. Aeroqual Dust Sentry Monitors Average Daily Downwind Minus Upwind Fugitive Dust Calculations

Date	TAA	Count of Locations	Average Downwind 1 (µg/m ³)	Average Downwind 2 (µg/m ³)	Average Downwind (µg/m ³)	Average Upwind (µg/m ³)	Downwind - Upwind (µg/m ³)
30-Oct-23	SPY	3	4.64	7.52	6.08	2.97	3.11
30-Oct-23	SWMU1-1	1	5.19	NA	5.19	NA	5.19
31-Oct-23	AOC1-2	1	1.61	NA	1.61	NA	1.61
31-Oct-23	SPY	3	3.23	5.65	4.44	2.37	2.07
31-Oct-23	SWMU1-1	1	3.99	NA	3.99	NA	3.99
01-Nov-23	AOC1-2	1	2.6	NA	2.60	NA	2.60
01-Nov-23	SPY	3	3.49	7.83	5.66	3.52	2.14
01-Nov-23	SWMU1-1	1	3.98	NA	3.98	NA	3.98
02-Nov-23	AOC1-2	1	4.02	NA	4.02	NA	4.02
02-Nov-23	SPY	3	10.49	4.79	7.64	5.64	2.00
02-Nov-23	SWMU1-1	1	5	NA	5.00	NA	5.00
03-Nov-23	SPY	3	11.42	5.44	8.43	4.42	4.01
04-Nov-23	SPY	3	8.82	4.18	6.50	4.11	2.39
06-Nov-23	SPY	2	7.17	NA	7.17	3.04	4.13
07-Nov-23	AOC1-2	1	2.78	NA	2.78	NA	2.78
07-Nov-23	AOC14-1	3	3.6	3.24	3.42	3.01	0.41
07-Nov-23	SPY	2	6.57	NA	6.57	2.31	4.26
07-Nov-23	SWMU1-1	1	3.22	NA	3.22	NA	3.22
08-Nov-23	AOC1-2	1	2.72	NA	2.72	NA	2.72
08-Nov-23	AOC14-1	3	2.36	2.93	2.65	2.99	-0.35
08-Nov-23	SPY	2	7.46	NA	7.46	13.21	-5.75
08-Nov-23	SWMU1-1	1	3.63	NA	3.63	NA	3.63
09-Nov-23	AOC1-2	1	1.8	NA	1.80	NA	1.80
09-Nov-23	AOC14-1	3	1.77	2	1.89	2.04	-0.16
09-Nov-23	SPY	2	5.17	NA	5.17	6.46	-1.29
09-Nov-23	SWMU1-1	1	2.39	NA	2.39	NA	2.39
10-Nov-23	AOC1-2	1	1.36	NA	1.36	NA	1.36
10-Nov-23	AOC14-1	3	1.64	2.13	1.89	2.13	-0.25
10-Nov-23	SPY	1	3.81	NA	3.81	NA	3.81
10-Nov-23	SWMU1-1	1	2.31	NA	2.31	NA	2.31
11-Nov-23	AOC14-1	2	3.02	NA	3.02	3.02	0.00
12-Nov-23	AOC14-1	2	3.47	NA	3.47	3.52	-0.05
13-Nov-23	AOC1-2	1	3.13	NA	3.13	NA	3.13
13-Nov-23	AOC14-1	3	4.5	4.22	4.36	4.15	0.21
13-Nov-23	SPY	2	10.8	NA	10.80	3.95	6.85
13-Nov-23	SWMU1-1	1	4.86	NA	4.86	NA	4.86
14-Nov-23	AOC14-1	3	4.43	4.16	4.30	3.83	0.47
14-Nov-23	SPY	2	8.8	NA	8.80	3.79	5.01
15-Nov-23	AOC14-1	3	3.89	3.73	3.81	34.36	-30.55
15-Nov-23	SPY	1	3.35	NA	3.35	NA	3.35
16-Nov-23	AOC14-1	3	2.7	2.69	2.70	11.71	-9.02
16-Nov-23	SPY	2	3.91	NA	3.91	1.95	1.96
17-Nov-23	SPY	2	6.01	NA	6.01	1.58	4.43

Table 2-6. Aeroqual Dust Sentry Monitors Average Daily Downwind Minus Upwind Fugitive Dust Calculations

Date	TAA	Count of Locations	Average Downwind 1 ($\mu\text{g}/\text{m}^3$)	Average Downwind 2 ($\mu\text{g}/\text{m}^3$)	Average Downwind ($\mu\text{g}/\text{m}^3$)	Average Upwind ($\mu\text{g}/\text{m}^3$)	Downwind - Upwind ($\mu\text{g}/\text{m}^3$)
20-Nov-23	SPY	2	9.8	NA	9.80	21.67	-11.87
21-Nov-23	SPY	1	2.58	NA	2.58	NA	2.58
27-Nov-23	SPY	2	3.34	NA	3.34	3.34	0.00
27-Nov-23	SWMU1-2	2	1.23	NA	1.23	1.47	-0.24
28-Nov-23	SPY	2	3.12	NA	3.12	2.62	0.50
28-Nov-23	SWMU1-2	2	1.35	NA	1.35	1.88	-0.53
29-Nov-23	SPY	2	3.85	NA	3.85	3.02	0.83
29-Nov-23	SWMU1-2	3	2.9	2.88	2.89	2.84	0.05
30-Nov-23	SPY	1	2.94	NA	2.94	NA	2.94
30-Nov-23	SWMU1-2	3	2.91	2.56	2.74	3.00	-0.27
01-Dec-23	SPY	2	4.13	NA	4.13	1.50	2.63
01-Dec-23	SWMU1-2	2	1.86	NA	1.86	3.31	-1.45
02-Dec-23	SPY	2	4.81	NA	4.81	1.92	2.89
02-Dec-23	SWMU1-2	2	1.77	NA	1.77	2.39	-0.62
03-Dec-23	SPY	2	5.9	NA	5.90	1.95	3.95
03-Dec-23	SWMU1-2	2	0.59	NA	0.59	2.51	-1.92
04-Dec-23	SPY	2	4.58	NA	4.58	2.10	2.48
04-Dec-23	SWMU1-2	3	2.53	2.79	2.66	2.15	0.51
05-Dec-23	SPY	2	4.24	NA	4.24	1.57	2.67
05-Dec-23	SWMU1-2	3	2.11	1.95	2.03	2.04	-0.01
06-Dec-23	SPY	1	2.33	NA	2.33	NA	2.33
06-Dec-23	SWMU1-2	3	2.11	2.06	2.09	3.60	-1.52
07-Dec-23	SPY	2	7.72	NA	7.72	2.91	4.81
07-Dec-23	SWMU1-2	3	2.35	2.81	2.58	2.78	-0.20
08-Dec-23	SPY	2	6.44	NA	6.44	8.08	-1.64
08-Dec-23	SWMU1-2	3	4.19	3.25	3.72	3.32	0.40
11-Dec-23	SPY	2	4.51	NA	4.51	2.00	2.51
11-Dec-23	SWMU1-2	2	2.81	NA	2.81	2.94	-0.13
12-Dec-23	SPY	2	5.87	NA	5.87	2.79	3.08
12-Dec-23	SWMU1-2	2	3.19	NA	3.19	3.20	-0.01
13-Dec-23	SPY	2	4.6	NA	4.60	2.35	2.25
13-Dec-23	SWMU1-2	3	2.73	2.04	2.39	2.87	-0.49
14-Dec-23	SPY	2	4.07	NA	4.07	1.98	2.09
14-Dec-23	SWMU1-2	3	2.55	2.73	2.64	1.98	0.66
15-Dec-23	SPY	2	5.47	NA	5.47	2.50	2.97
15-Dec-23	SWMU1-2	3	2.75	2.17	2.46	2.44	0.02
18-Dec-23	SPY	2	6.63	NA	6.63	4.48	2.15
18-Dec-23	SWMU1-2	2	3.16	NA	3.16	3.99	-0.83
19-Dec-23	SPY	2	7.24	NA	7.24	2.95	4.29
19-Dec-23	SWMU1-2	2	4.81	NA	4.81	4.37	0.44
20-Dec-23	SPY	2	7.01	NA	7.01	3.25	3.76
08-Jan-24	SPY	2	3.56	NA	3.56	3.88	-0.32
09-Jan-24	SPY	2	2.05	NA	2.05	1.48	0.57

Table 2-6. Aeroqual Dust Sentry Monitors Average Daily Downwind Minus Upwind Fugitive Dust Calculations

Date	TAA	Count of Locations	Average Downwind 1 ($\mu\text{g}/\text{m}^3$)	Average Downwind 2 ($\mu\text{g}/\text{m}^3$)	Average Downwind ($\mu\text{g}/\text{m}^3$)	Average Upwind ($\mu\text{g}/\text{m}^3$)	Downwind - Upwind ($\mu\text{g}/\text{m}^3$)
10-Jan-24	SPY	2	9.66	NA	9.66	2.13	7.53
11-Jan-24	SPY	2	4.43	NA	4.43	4.65	-0.22
12-Jan-24	SPY	2	2.69	NA	2.69	0.36	2.33
15-Jan-24	SPY	2	3.6	NA	3.60	2.20	1.40
16-Jan-24	SPY	2	3.17	NA	3.17	1.59	1.58
17-Jan-24	SPY	2	5.4	NA	5.40	1.85	3.55
18-Jan-24	SPY	2	5.23	NA	5.23	2.99	2.24
19-Jan-24	SPY	2	5.66	NA	5.66	2.29	3.37
24-Jan-24	SPY	2	2.42	NA	2.42	-1.04	3.46
25-Jan-24	SPY	2	2.02	NA	2.02	0.38	1.64
29-Jan-24	SPY	2	2.17	NA	2.17	1.18	0.99
30-Jan-24	SPY	2	2.34	NA	2.34	1.06	1.28
31-Jan-24	SPY	2	3.47	NA	3.47	1.32	2.15
01-Feb-24	SPY	2	3.54	NA	3.54	1.54	2.00
05-Feb-24	SPY	2	4.41	NA	4.41	1.34	3.07
06-Feb-24	SPY	2	2.47	NA	2.47	0.97	1.50
13-Feb-24	SPY	2	1.35	NA	1.35	1.96	-0.61
14-Feb-24	SPY	1	2.3	NA	2.30	NA	2.30
20-Feb-24	SPY	2	3.57	NA	3.57	1.56	2.01
21-Feb-24	SPY	2	1.6	NA	1.60	0.97	0.63
22-Feb-24	SPY	2	11.45	NA	11.45	2.75	8.70
23-Feb-24	SPY	1	0.34	NA	0.34	NA	0.34
27-Feb-24	SPY	2	3.91	NA	3.91	1.50	2.41
28-Feb-24	SPY	2	2.53	NA	2.53	1.67	0.86
29-Feb-24	SPY	2	5.92	NA	5.92	2.50	3.42
01-Mar-24	SPY	2	6.21	NA	6.21	2.42	3.79
05-Mar-24	SPY	2	4.78	NA	4.78	1.93	2.85
06-Mar-24	SPY	2	5.78	NA	5.78	2.98	2.80
11-Mar-24	SPY	2	4.31	NA	4.31	1.99	2.32
12-Mar-24	SPY	2	4.33	NA	4.33	1.95	2.38
14-Mar-24	SPY	2	4.26	NA	4.26	2.45	1.81
15-Mar-24	SPY	2	2.61	NA	2.61	1.06	1.55
18-Mar-24	SPY	2	2.71	NA	2.71	1.09	1.62
19-Mar-24	SPY	2	2.95	NA	2.95	1.34	1.61
20-Mar-24	SPY	2	5.62	NA	5.62	1.77	3.85
21-Mar-24	SPY	2	4.57	NA	4.57	1.68	2.89
22-Mar-24	SPY	2	5.16	NA	5.16	2.41	2.75
26-Mar-24	SPY	2	6.41	NA	6.41	1.51	4.90
27-Mar-24	SPY	2	4.95	NA	4.95	1.47	3.48
28-Mar-24	SPY	2	6.51	NA	6.51	2.92	3.59
03-Apr-24	SPY	1	0.81	NA	0.81	NA	0.81
04-Apr-24	SPY	1	0.89	NA	0.89	NA	0.89
08-Apr-24	SPY	2	6.05	NA	6.05	2.04	4.01

Table 2-6. Aeroqual Dust Sentry Monitors Average Daily Downwind Minus Upwind Fugitive Dust Calculations

Date	TAA	Count of Locations	Average Downwind 1 ($\mu\text{g}/\text{m}^3$)	Average Downwind 2 ($\mu\text{g}/\text{m}^3$)	Average Downwind ($\mu\text{g}/\text{m}^3$)	Average Upwind ($\mu\text{g}/\text{m}^3$)	Downwind - Upwind ($\mu\text{g}/\text{m}^3$)
09-Apr-24	SPY	2	3.62	NA	3.62	1.94	1.68
10-Apr-24	SPY	2	5.21	NA	5.21	2.56	2.65
11-Apr-24	SPY	2	6.2	NA	6.20	3.03	3.17
12-Apr-24	SPY	2	6.43	NA	6.43	3.23	3.20
16-Apr-24	SPY	2	3.04	NA	3.04	1.21	1.83
17-Apr-24	SPY	2	9.19	NA	9.19	1.77	7.42
18-Apr-24	SPY	2	5.22	NA	5.22	1.83	3.39
19-Apr-24	SPY	2	4.57	NA	4.57	1.80	2.77

$\mu\text{g}/\text{m}^3$ = microgram(s) per cubic meter

AOC = area of concern

NA = Not available

SPY = soil-processing yard

SWMU = solid waste management unit

TAA = Target Action Area

Table 2-7. Perimeter Air Sampling Results – Hexavalent Chromium
Soil Non-Time Critical Removal Action (NTCRA) Air Monitoring Report
PG&E Topock Compressor Station, Needles, California

Location ID	Location	Sampling Date	Analytical Results
NTCRA-SPY-U1-Cr6-20220810	SPY- Upwind	8/10/2022	Not detected at an RL of 0.000129 µg/m ³ .
NTCRA-SPY-D1-Cr6-20220810	SPY- Downwind 1	8/10/2022	Not detected at an RL of 0.000133 µg/m ³ .
NTCRA-SPY-D2-Cr6-20220810	SPY- Downwind 2	8/10/2022	Not detected at an RL of 0.000134 µg/m ³ .
NTCRA-AOC10-2-U1-Cr6-20220821	EAST RAVINE- Upwind	8/21/2022	Detect of 0.0000441 µg/m ³ .
NTCRA-AOC10-2-D1-Cr6-20220821	EAST RAVINE- Downwind 1	8/21/2022	Detect of 0.000815 µg/m ³ .
NTCRA-AOC10-2-D2-Cr6-20220821	EAST RAVINE- Downwind 2	8/21/2022	Detect of 0.000387 µg/m ³ .
NTCRA-SPY-U1-Cr6-20220823	SPY- Upwind	8/23/2022	Not detected at an RL of 0.000116 µg/m ³ .
NTCRA-SPY-D1-Cr6-20220823	SPY- Downwind 1	8/23/2022	Detect of 0.0000394 µg/m ³ .
NTCRA-SPY-D2-Cr6-20220823	SPY- Downwind 2	8/23/2022	Detect of 0.0000249 µg/m ³ .
NTCRA-SPY-D1-Cr6-20220823-Dup	SPY- Downwind 1	8/23/2022	Detect of 0.0000442 µg/m ³ .
NTCRA-SPY-U1-Cr6-20220921	SPY- Upwind	9/21/2022	Not detected at an RL of 0.000139 µg/m ³ .
NTCRA-SPY-D1-Cr6-20220921	SPY- Downwind 1	9/21/2022	Not detected at an RL of 0.000140 µg/m ³ .
NTCRA-SPY-D2-Cr6-20220921	SPY- Downwind 2	9/21/2022	Not detected at an RL of 0.000140 µg/m ³ .
NTCRA-SPY-D1-Cr6-20220921-Dup	SPY- Downwind 1	9/21/2022	Not detected at an RL of 0.000139 µg/m ³ .
NTCRA-AOC10-2-U1-Cr6-20220922	EAST RAVINE- Upwind	9/22/2022	Detect of 0.0000253 µg/m ³ .
NTCRA-AOC10-2-D1-Cr6-20220922	EAST RAVINE- Downwind 1	9/22/2022	Detect of 0.000701 µg/m ³ .
NTCRA-AOC10-2-D2-Cr6-20220922	EAST RAVINE- Downwind 2	9/22/2022	Detect of 0.000494 µg/m ³ .
NTCRA-SPY-U1-Cr6-20220922	SPY- Upwind	9/22/2022	Not detected at an RL of 0.000138 µg/m ³ .
NTCRA-SPY-D1-Cr6-20220922	SPY- Downwind 1	9/22/2022	Detect of 0.0000415 µg/m ³ .
NTCRA-SPY-D2-Cr6-20220922	SPY- Downwind 2	9/22/2022	Not detected at an RL of 0.000134 µg/m ³ .
NTCRA-AOC10-2-D1-Cr6-20220926	EAST RAVINE- Downwind 1	9/26/2022	Not detected at an RL of 0.0000261 µg/m ³ .
NTCRA-AOC10-2-D1-Cr6-20220926-Dup	EAST RAVINE- Downwind 1	9/26/2022	Not detected at an RL of 0.0000261 µg/m ³ .
NTCRA-AOC10-2-D2-Cr6-20220926	EAST RAVINE- Downwind 2	9/26/2022	Detect of 0.0000358 µg/m ³ .

Location ID	Location	Sampling Date	Analytical Results
NTCRA-AOC10-2-U1-Cr6-20220926	EAST RAVINE- Upwind	9/26/2022	Not detected at an RL of 0.0000275 µg/m ³ .
NTCRA-SPY-U1-Cr6-20221008	SPY- Upwind	10/8/2022	Not detected at an RL of 0.0000257 µg/m ³ .
NTCRA-SPY-D1-Cr6-20221008	SPY- Downwind 1	10/8/2022	Not detected at an RL of 0.0000271 µg/m ³ .
NTCRA-SPY-D2-Cr6-20221008	SPY- Downwind 2	10/8/2022	Not detected at an RL of 0.0000268 µg/m ³ .
NTCRA-SWMU1-1-U1-Cr6-20221009	BAT CAVE WASH- Upwind	10/9/2022	Not detected at an RL of 0.0000281 µg/m ³ .
NTCRA-SWMU1-1-D1-Cr6-20221009	BAT CAVE WASH- Downwind 1	10/9/2022	Not detected at an RL of 0.0000276 µg/m ³ .
NTCRA-SWMU1-1-D2-Cr6-20221009	BAT CAVE WASH- Downwind 2	10/9/2022	Not detected at an RL of 0.0000279 µg/m ³ .
NTCRA-SWMU1-1-D2-Cr6-20221009-Dup	BAT CAVE WASH- Downwind 2	10/9/2022	Not detected at an RL of 0.000028 µg/m ³ .
NTCRA-SWMU1-1-U1-Cr6-20221012	BAT CAVE WASH- Upwind	10/12/2022	Not detected at an RL of 0.0000299 µg/m ³ .
NTCRA-SWMU1-1-D1-Cr6-20221012	BAT CAVE WASH- Downwind 1	10/12/2022	Not detected at an RL of 0.0000289 µg/m ³ .
NTCRA-SWMU1-1-D2-Cr6-20221012	BAT CAVE WASH- Downwind 2	10/12/2022	Not detected at an RL of 0.0000294 µg/m ³ .
NTCRA-SPY-U1-Cr6-20221114	SPY- Upwind	11/14/2022	Not detected at an RL of 0.0000264 µg/m ³ .
NTCRA-SPY-D1-Cr6-20221114	SPY- Downwind 1	11/14/2022	Not detected at an RL of 0.000027 µg/m ³ .
NTCRA-SPY-D2-Cr6-20221114	SPY- Downwind 2	11/14/2022	Not detected at an RL of 0.0000265 µg/m ³ .
NTCRA-SPY-U1-Cr6-20221115	SPY- Upwind	11/15/2022	Not detected at an RL of 0.0000262 µg/m ³ .
NTCRA-SPY-D1-Cr6-20221115	SPY- Downwind 1	11/15/2022	Not detected at an RL of 0.0000261 µg/m ³ .
NTCRA-SPY-D2-Cr6-20221115	SPY- Downwind 2	11/15/2022	Not detected at an RL of 0.0000266 µg/m ³ .
NTCRA-AOC10-2-U1-Cr6-20221117	EAST RAVINE- Upwind	11/17/2022	Not detected at an RL of 0.000031 µg/m ³ .
NTCRA-AOC10-2-D1-Cr6-20221117	EAST RAVINE- Downwind 1	11/17/2022	Detect of 0.0000795 µg/m ³ .
NTCRA-AOC10-2-D2-Cr6-20221117	EAST RAVINE- Downwind 2	11/17/2022	Not detected at an RL of 0.000033 µg/m ³ .
NTCRA-AOC10-2-U1-Cr6-20221207	EAST RAVINE- Upwind	12/7/2022	Not detected at an RL of 0.0000286 µg/m ³ .
NTCRA-AOC10-2-D1-Cr6-20221207	EAST RAVINE- Downwind 1	12/7/2022	Detect of 0.0000445 µg/m ³ .
NTCRA-AOC10-2-D2-Cr6-20221207	EAST RAVINE- Downwind 2	12/7/2022	Not detected at an RL of 0.0000286 µg/m ³ .

Location ID	Location	Sampling Date	Analytical Results
NTCRA-SPY-U1-Cr6-20221207	SPY- Upwind	12/7/2022	Not detected at an RL of 0.0000264 µg/m ³ .
NTCRA-SPY-D1-Cr6-20221207	SPY- Downwind 1	12/7/2022	Not detected at an RL of 0.0000264 µg/m ³ .
NTCRA-SPY-D2-Cr6-20221207	SPY- Downwind 2	12/7/2022	Not detected at an RL of 0.0000264 µg/m ³ .
NTCRA-SPY-D1-Cr6-20221214	SPY- Downwind 1	12/14/2022	Not detected at an RL of 0.0000293 µg/m ³ .
NTCRA-SPY-D2-Cr6-20221214	SPY- Downwind 2	12/14/2022	Not detected at an RL of 0.0000293 µg/m ³ .
NTCRA-SPY-U1-Cr6-20221214	SPY- Upwind	12/14/2022	Not detected at an RL of 0.0000308 µg/m ³ .
NTCRA-SPY-D1-Cr6-20230105	SPY- Downwind 1	1/5/2023	Not detected at an RL of 0.0000312 µg/m ³ .
NTCRA-SPY-D1-Cr6-20230105-Dup	SPY- Downwind 1	1/5/2023	Detect of 0.0000312 µg/m ³ .
NTCRA-SPY-D2-Cr6-20230105	SPY- Downwind 2	1/5/2023	Not detected at an RL of 0.0000316 µg/m ³ .
NTCRA-SPY-U1-Cr6-20230105	SPY- Upwind	1/5/2023	Not detected at an RL of 0.0000318 µg/m ³ .
NTCRA-SWMU1-1-D1-Cr6-20230118	BAT CAVE WASH- Downwind 1	1/18/2023	Not detected at an RL of 0.0000285 µg/m ³ .
NTCRA-SWMU1-1-D2-Cr6-20230118	BAT CAVE WASH- Downwind 2	1/18/2023	Not detected at an RL of 0.0000295 µg/m ³ .
NTCRA-SWMU1-1-U1-Cr6-20230118	BAT CAVE WASH- Upwind	1/18/2023	Not detected at an RL of 0.0000296 µg/m ³ .
NTCRA-SPY-D1-Cr6-20230126	SPY- Downwind 1	1/26/2023	Not detected at an RL of 0.000034 µg/m ³ .
NTCRA-SPY-D2-Cr6-20230126	SPY- Downwind 2	1/26/2023	Detect of 0.000344 µg/m ³ .
NTCRA-SPY-U1-Cr6-20230126	SPY- Upwind 1	1/26/2023	Not detected at an RL of 0.0000341 µg/m ³ .
NTCRA-SWMU1-1-D1-Cr6-20230126	BAT CAVE WASH- Downwind 1	1/26/2023	Detect of 0.000439 µg/m ³ .
NTCRA-SWMU1-1-D2-Cr6-20230126	BAT CAVE WASH- Downwind 2	1/26/2023	Not detected at an RL of 0.0000304 µg/m ³ .
NTCRA-SWMU1-1-U1-Cr6-20230126	BAT CAVE WASH- Upwind	1/26/2023	Not detected at an RL of 0.0000307 µg/m ³ .
NTCRA-SPY-D1-Cr6-20230203	SPY- Downwind 1	2/3/2023	Not detected at an RL of 0.0000530 µg/m ³ .
NTCRA-SPY-D1-Cr6-20230203-Dup	SPY- Downwind 1	2/3/2023	Not detected at an RL of 0.0000781 µg/m ³ .
NTCRA-SPY-D2-Cr6-20230203	SPY- Downwind 2	2/3/2023	Not detected at an RL of 0.000154 µg/m ³ .
NTCRA-SPY-U1-Cr6-20230203	SPY- Upwind 1	2/3/2023	Not detected at an RL of 0.0000321 µg/m ³ .
NTCRA-SPY-D1-Cr6-20230210	SPY- Downwind 1	2/10/2023	Not detected at an RL of 0.0000301 µg/m ³ .

Location ID	Location	Sampling Date	Analytical Results
NTCRA-SPY-D2-Cr6-20230210	SPY- Downwind 2	2/10/2023	Not detected at an RL of 0.0000302 µg/m ³ .
NTCRA-SPY-D2-Cr6-20230210-Dup	SPY- Downwind 2	2/10/2023	Not detected at an RL of 0.0000302 µg/m ³ .
NTCRA-SPY-U1-Cr6-20230210	SPY- Upwind 1	2/10/2023	Not detected at an RL of 0.0000298 µg/m ³ .
NTCRA-SWMU1-1-D1-Cr6-20230215	BAT CAVE WASH- Downwind 1	2/15/2023	Detect of 0.0000308 µg/m ³ .
NTCRA-SWMU1-1-D1-Cr6-230215Dup	BAT CAVE WASH- Downwind 1	2/15/2023	Not detected at an RL of 0.0000307 µg/m ³ .
NTCRA-SWMU1-1-D2-Cr6-20230215	BAT CAVE WASH- Downwind 2	2/15/2023	Detect of 0.00015 µg/m ³ .
NTCRA-SWMU1-1-U1-Cr6-20230215	BAT CAVE WASH- Upwind	2/15/2023	Not detected at an RL of 0.0000332 µg/m ³ .
NTCRA-SPY-D1-Cr6-20230223	SPY- Downwind 1	2/23/2023	Not detected at an RL of 0.0000263 µg/m ³ .
NTCRA-SPY-D1-Cr6-20230223-Dup	SPY- Downwind 1	2/23/2023	Not detected at an RL of 0.0000263 µg/m ³ .
NTCRA-SPY-D2-Cr6-20230223	SPY- Downwind 2	2/23/2023	Not detected at an RL of 0.0000261 µg/m ³ .
NTCRA-SPY-U1-Cr6-20230223	SPY- Upwind	2/23/2023	Not detected at an RL of 0.0000267 µg/m ³ .
NTCRA-AOC10-2-D1-Cr6-20230307	EAST RAVINE- Downwind 1	3/7/2023	Detect of 0.0000922 µg/m ³ .
NTCRA-AOC10-2-D1-Cr6-230307Dup	EAST RAVINE- Downwind 1	3/7/2023	Detect of 0.0000996 µg/m ³ .
NTCRA-AOC10-2-D2-Cr6-20230307	EAST RAVINE- Downwind 2	3/7/2023	Detect of 0.0000322 µg/m ³ .
NTCRA-AOC10-2-U1-Cr6-20230307	EAST RAVINE- Upwind	3/7/2023	Detect of 0.0000516 µg/m ³ .
NTCRA-SPY-D1-Cr6-20230308	SPY- Downwind 1	3/8/2023	Not detected at an RL of 0.0000286 µg/m ³ .
NTCRA-SPY-D1-Cr6-20230308-Dup	SPY- Downwind 1	3/8/2023	Detect of 0.000043 µg/m ³ .
NTCRA-SPY-D2-Cr6-20230308	SPY- Downwind 2	3/8/2023	Detect of 0.000529 µg/m ³ .
NTCRA-SPY-U1-Cr6-20230308	SPY- Upwind	3/8/2023	Detect of 0.00003 µg/m ³ .
NTCRA-SPY-D1-Cr6-20230413	SPY- Downwind 1	4/13/2023	Not detected at an RL of 0.0000322 µg/m ³ .
NTCRA-SPY-D2-Cr6-20230413	SPY- Downwind 2	4/13/2023	Not detected at an RL of 0.000104 µg/m ³ .
NTCRA-SPY-D2-Cr6-20230413-Dup	SPY- Downwind 2	4/13/2023	Not detected at an RL of 0.000104 µg/m ³ .
NTCRA-SPY-U1-Cr6-20230413	SPY- Upwind	4/13/2023	Not detected at an RL of 0.0000322 µg/m ³ .
NTCRA-AOC10-2-D1-Cr6-20230417	EAST RAVINE- Downwind 1	4/17/2023	Not detected at an RL of 0.000189 µg/m ³ .
NTCRA-AOC10-2-D1-Cr6-230417Dup	EAST RAVINE- Downwind 1	4/17/2023	Not detected at an RL of 0.0000431 µg/m ³ .

Location ID	Location	Sampling Date	Analytical Results
NTCRA-AOC10-2-D2-Cr6-20230417	EAST RAVINE- Downwind 2	4/17/2023	Not detected at an RL of 0.0000344 µg/m ³ .
NTCRA-AOC10-2-U1-Cr6-20230417	EAST RAVINE- Upwind	4/17/2023	Not detected at an RL of 0.0000352 µg/m ³ .
NTCRA-AOC10-2-D1-Cr6-20230419	EAST RAVINE- Downwind 1	4/19/2023	Not detected at an RL of 0.0000384 µg/m ³ .
NTCRA-AOC10-2-D2-Cr6-20230419	EAST RAVINE- Downwind 2	4/19/2023	Not detected at an RL of 0.0000572 µg/m ³ .
NTCRA-AOC10-2-U1-Cr6-20230419	EAST RAVINE- Upwind	4/19/2023	Not detected at an RL of 0.0000353 µg/m ³ .
NTCRA-SPY-D1-Cr6-202302419	SPY- Downwind 1	4/19/2023	Not detected at an RL of 0.0000654 µg/m ³ .
NTCRA-SPY-D2-Cr6-202302419	SPY- Downwind 2	4/19/2023	Not detected at an RL of 0.0000769 µg/m ³ .
NTCRA-SPY-U1-Cr6-202302419	SPY- Upwind	4/19/2023	Not detected at an RL of 0.0000472 µg/m ³ .
NTCRA-AOC10-2-D1-Cr6-20230516	EAST RAVINE- Downwind 1	5/16/2023	Not detected at an RL of 0.0000337 µg/m ³ .
NTCRA-AOC10-2-D2-Cr6-20230516	EAST RAVINE- Downwind 2	5/16/2023	Not detected at an RL of 0.0000342 µg/m ³ .
NTCRA-AOC10-2-U1-Cr6-20230516	EAST RAVINE- Upwind	5/16/2023	Not detected at an RL of 0.0000345 µg/m ³ .
NTCRA-SPY-D1-Cr6-20230516	SPY- Downwind 1	5/16/2023	Not detected at an RL of 0.0000284 µg/m ³ .
NTCRA-SPY-D2-Cr6-20230516	SPY- Downwind 2	5/16/2023	Not detected at an RL of 0.0000286 µg/m ³ .
NTCRA-SPY-U1-Cr6-20230516	SPY- Upwind 1	5/16/2023	Not detected at an RL of 0.0000295 µg/m ³ .
NTCRA-AOC10-4-D1-Cr6-20230613	EAST RAVINE- Downwind 1	6/13/2023	Not detected at an RL of 0.0000537 µg/m ³ .
NTCRA-AOC10-4-D2-Cr6-20230613	EAST RAVINE- Downwind 2	6/13/2023	Not detected at an RL of 0.0000537 µg/m ³ .
NTCRA-AOC10-4-U1-Cr6-20230613	EAST RAVINE- Upwind	6/13/2023	Not detected at an RL of 0.0000537 µg/m ³ .
NTCRA-AOC10-4-D1-Cr6-20230614	EAST RAVINE- Downwind 1	6/14/2023	Not detected at an RL of 0.0000345 µg/m ³ .
NTCRA-AOC10-4-D2-Cr6-20230614	EAST RAVINE- Downwind 2	6/14/2023	Not detected at an RL of 0.0000349 µg/m ³ .
NTCRA-AOC10-4-U1-Cr6-20230614	EAST RAVINE- Upwind	6/14/2023	Not detected at an RL of 0.0000336 µg/m ³ .
NTCRA-SPY-D1-Cr6-20230615	SPY- Downwind 1	6/15/2023	Not detected at an RL of 0.0000594 µg/m ³ .
NTCRA-SPY-D2-Cr6-20230615	SPY- Downwind 2	6/15/2023	Not detected at an RL of 0.0000325 µg/m ³ .
NTCRA-SPY-U1-Cr6-20230615	SPY- Upwind 1	6/15/2023	Not detected at an RL of 0.0000325 µg/m ³ .
NTCRA-SPY-D1-Cr6-20230622	SPY- Downwind 1	6/22/2023	Detect of 0.0000542 µg/m ³ .

Location ID	Location	Sampling Date	Analytical Results
NTCRA-SPY-D2-Cr6-20230622	SPY- Downwind 2	6/22/2023	Detect of 0.0000476 µg/m ³ .
NTCRA-SPY-D2-Cr6-20230622-dup	SPY- Downwind 2	6/22/2023	Detect of 0.0000456 µg/m ³ .
NTCRA-SPY-U1-Cr6-20230622	SPY- Upwind	6/22/2023	Not detected at an RL of 0.0000275 µg/m ³ .
NTCRA-SWMU1-D1-Cr6-20230626	BAT CAVE WASH- Downwind 1	6/26/2023	Not detected at an RL of 0.0000289 µg/m ³ .
NTCRA-SWMU1-D1-Cr6-20230626dup	BAT CAVE WASH- Downwind 1	6/26/2023	Detect of 0.0000289 µg/m ³ .
NTCRA-SWMU1-D2-Cr6-20230626	BAT CAVE WASH- Downwind 2	6/26/2023	Not detected at an RL of 0.0000291 µg/m ³ .
NTCRA-SWMU1-U1-Cr6-20230626	BAT CAVE WASH- Upwind	6/26/2023	Not detected at an RL of 0.0000281 µg/m ³ .
NTCRA-SPY-D1-Cr6-20230712	SPY- Downwind 1	7/12/2023	Detect of 0.0000476 µg/m ³ .
NTCRA-SPY-D2-Cr6-20230712	SPY- Downwind 2	7/12/2023	Detect of 0.0000396 µg/m ³ .
NTCRA-SPY-U1-Cr6-20230712	SPY- Upwind	7/12/2023	Not detected at an RL of 0.0000273 µg/m ³ .
NTCRA-AOC9-D1-Cr6-20230717	EAST RAVINE- Downwind 1	7/17/2023	Not detected at an RL of 0.0000344 µg/m ³ .
NTCRA-AOC9-D2-Cr6-20230717	EAST RAVINE- Downwind 2	7/17/2023	Not detected at an RL of 0.0000354 µg/m ³ .
NTCRA-AOC9-U1-Cr6-20230717	EAST RAVINE- Upwind	7/17/2023	Not detected at an RL of 0.0000329 µg/m ³ .
NTCRA-SPY-D1-Cr6-20230720	SPY- Downwind 1	7/20/2023	Not detected at an RL of 0.000028 µg/m ³ .
NTCRA-SPY-D2-Cr6-20230720	SPY- Downwind 2	7/20/2023	Not detected at an RL of 0.0000281 µg/m ³ .
NTCRA-SPY-U1-Cr6-20230720	SPY- Upwind	7/20/2023	Not detected at an RL of 0.0000284 µg/m ³ .
NTCRA-SPY-D1-Cr6-20230724	SPY- Downwind 1	7/24/2023	Not detected at an RL of 0.00003 µg/m ³ .
NTCRA-SPY-D1-Cr6-20230724-Dup	SPY- Downwind 1	7/24/2023	Not detected at an RL of 0.00003 µg/m ³ .
NTCRA-SPY-D2-Cr6-20230724	SPY- Downwind 2	7/24/2023	Not detected at an RL of 0.0000301 µg/m ³ .
NTCRA-SPY-U1-Cr6-20230724	SPY- Upwind	7/24/2023	Not detected at an RL of 0.0000307 µg/m ³ .
NTCRA-AOC10-1-D1-Cr6-20230726	EAST RAVINE- Downwind 1	7/26/2023	Detect of 0.00581 µg/m ³ .
NTCRA-AOC10-1-D1-Cr6-230726Dup	EAST RAVINE- Downwind 1	7/26/2023	Detect of 0.00399 µg/m ³ .
NTCRA-AOC10-1-D2-Cr6-20230726	EAST RAVINE- Downwind 2	7/26/2023	Detect of 0.0176 µg/m ³ .
NTCRA-AOC10-1-U1-Cr6-20230726	EAST RAVINE- Upwind	7/26/2023	Not detected at an RL of 0.0000303 µg/m ³ .
NTCRA-AOC10-1-D2-Cr6-20230801	EAST RAVINE- Downwind 2	8/1/2023	Detect of 0.0000569 µg/m ³ .

Location ID	Location	Sampling Date	Analytical Results
NTCRA-AOC10-1-U1-Cr6-20230801	EAST RAVINE- Upwind	8/1/2023	Not detected at an RL of 0.0000326 µg/m ³ .
NTCRA-SPY-D1-Cr6-20230801	SPY- Downwind 1	8/1/2023	Detect of 0.0000406 µg/m ³ .
NTCRA-SPY-D2-Cr6-20230801	SPY- Downwind 2	8/1/2023	Detect of 0.0000319 µg/m ³ .
NTCRA-SPY-U1-Cr6-20230801	SPY- Upwind	8/1/2023	Not detected at an RL of 0.0000291 µg/m ³ .
NTCRA-SPY-D1-Cr6-20230816	SPY- Downwind 1	8/16/2023	Detect of 0.0000516 µg/m ³ .
NTCRA-SPY-D2-Cr6-20230816	SPY- Downwind 2	8/16/2023	Detect of 0.0000623 µg/m ³ .
NTCRA-SPY-D2-Cr6-20230816-Dup	SPY- Downwind 2	8/16/2023	Detect of 0.0000545 µg/m ³ .
NTCRA-SPY-U1-Cr6-20230816	SPY- Upwind	8/16/2023	Not detected at an RL of 0.0000398 µg/m ³ .
NTCRA-AOC10-1-D1-Cr6-20230823	EAST RAVINE- Downwind 1	8/23/2023	Detect of 0.0000642 µg/m ³ .
NTCRA-AOC10-1-D2-Cr6-20230823	EAST RAVINE- Downwind 2	8/23/2023	Detect of 0.0000837 µg/m ³ .
NTCRA-AOC10-1-U1-Cr6-20230823	EAST RAVINE- Upwind	8/23/2023	Not detected at an RL of 0.0000438 µg/m ³ .
NTCRA-SPY-D1-Cr6-20230829	SPY- Downwind 1	8/29/2023	Detect of 0.0000381 µg/m ³ .
NTCRA-SPY-D2-Cr6-20230829	SPY- Downwind 2	8/29/2023	Detect of 0.0000634 µg/m ³ .
NTCRA-SPY-U1-Cr6-20230829	SPY- Upwind	8/29/2023	Detect of 0.0000606 µg/m ³ .
NTCRA-AOC10-1-D1-Cr6-20230830	EAST RAVINE- Downwind 1	8/30/2023	Detect of 0.000112 µg/m ³ .
NTCRA-AOC10-1-D2-Cr6-20230830	EAST RAVINE- Downwind 2	8/30/2023	Detect of 0.0000906 µg/m ³ .
NTCRA-AOC10-1-U1-Cr6-20230830	EAST RAVINE- Upwind	8/30/2023	Detect of 0.0000483 µg/m ³ .
NTCRA-AOC10-1-U1-Cr6-230830Dup	EAST RAVINE- Upwind	8/30/2023	Detect of 0.0000561 µg/m ³ .
NTCRA-AOC10-1-D1-Cr6-20230906	EAST RAVINE- Downwind 1	9/6/2023	Not detected at an RL of 0.0000418 µg/m ³ .
NTCRA-AOC10-1-D2-Cr6-20230906	EAST RAVINE- Downwind 2	9/6/2023	Not detected at an RL of 0.0000412 µg/m ³ .
NTCRA-AOC10-1-U1-Cr6-20230906	EAST RAVINE- Upwind	9/6/2023	Not detected at an RL of 0.000037 µg/m ³ .
NTCRA-SPY-D1-Cr6-20230907	SPY- Downwind 1	9/7/2023	Detect of 0.0000762 µg/m ³ .
NTCRA-SPY-D2-Cr6-20230907	SPY- Downwind 2	9/7/2023	Detect of 0.0000596 µg/m ³ .
NTCRA-SPY-U1-Cr6-20230907	SPY- Upwind	9/7/2023	Not detected at an RL of 0.00004 µg/m ³ .
NTCRA-SPY-D1-Cr6-20230912	SPY- Downwind 1	9/12/2023	Detect of 0.000044 µg/m ³ .
NTCRA-SPY-D2-Cr6-20230912	SPY- Downwind 2	9/12/2023	Detect of 0.0000587 µg/m ³ .
NTCRA-SPY-U1-Cr6-20230912	SPY- Upwind	9/12/2023	Detect of 0.000104 µg/m ³ .
NTCRA-SWMU1-1-Cr6-D1-20230914	BAT CAVE WASH- Downwind 1	9/14/2023	Not detected at an RL of 0.0000387 µg/m ³ .
NTCRA-SWMU1-1-Cr6-Tent-230914	BAT CAVE WASH- Tent	9/14/2023	Not detected at an RL of 0.0000359 µg/m ³ .

Location ID	Location	Sampling Date	Analytical Results
NTCRA-SWMU1-1-Cr6-U1-20230914	BAT CAVE WASH- Upwind	9/14/2023	Not detected at an RL of 0.0000374 µg/m ³ .
NTCRA-SWMU1-1-Cr6-D1-20230920	BAT CAVE WASH- Downwind 1	9/20/2023	Not detected at an RL of 0.0000417 µg/m ³ .
NTCRA-SWMU1-1-Cr6-Tent-230920	BAT CAVE WASH- Tent	9/20/2023	Not detected at an RL of 0.0000414 µg/m ³ .
NTCRA-SWMU1-1-Cr6Tent230920Dup	BAT CAVE WASH- Tent	9/20/2023	Not detected at an RL of 0.0000416 µg/m ³ .
NTCRA-SWMU1-1-Cr6-U1-20230920	BAT CAVE WASH- Upwind	9/20/2023	Not detected at an RL of 0.0000422 µg/m ³ .
NTCRA-SPY-1-Cr6-D1-20230927	SPY- Downwind 1	9/27/2023	Not detected at an RL of 0.0000537 µg/m ³ .
NTCRA-SPY-1-Cr6-D2-20230927	SPY- Downwind 2	9/27/2023	Not detected at an RL of 0.0000498 µg/m ³ .
NTCRA-SPY-1-Cr6-U1-20230927	SPY- Upwind	9/27/2023	Not detected at an RL of 0.0000462 µg/m ³ .
NTCRA-SWMU1-1-Cr6-D1-20230927	BAT CAVE WASH- Downwind 1	9/27/2023	Not detected at an RL of 0.0000305 µg/m ³ .
NTCRA-SWMU1-1-Cr6-D2-20230927	BAT CAVE WASH- Downwind 2	9/27/2023	Not detected at an RL of 0.0000285 µg/m ³ .
NTCRA-SWMU1-1-Cr6-U1-20230927	BAT CAVE WASH- Upwind	9/27/2023	Not detected at an RL of 0.0000291 µg/m ³ .
NTCRA-SPY-D1-Cr6-20231004	SPY- Downwind 1	10/4/2023	Not detected at an RL of 0.0000329 µg/m ³ .
NTCRA-SPY-D2-Cr6-20231004	SPY- Downwind 2	10/4/2023	Not detected at an RL of 0.0000342 µg/m ³ .
NTCRA-SPY-U1-Cr6-20231004	SPY- Upwind	10/4/2023	Detect of 0.0000698 µg/m ³ .
NTCRA-SWMU1-1-D1-Cr6-20231004	BAT CAVE WASH- Downwind 1	10/4/2023	Not detected at an RL of 0.0000378 µg/m ³ .
NTCRA-SWMU1-1-Tent-Cr6-231004	BAT CAVE WASH- Tent	10/4/2023	Not detected at an RL of 0.0000361 µg/m ³ .
NTCRA-SWMU1-1-U1-Cr6-20231004	BAT CAVE WASH- Upwind	10/4/2023	Not detected at an RL of 0.0000352 µg/m ³ .
NTCRA-SPY-D1-Cr6-20231011	SPY- Downwind 1	10/11/2023	Not detected at an RL of 0.0000432 µg/m ³ .
NTCRA-SPY-D2-Cr6-20231011	SPY- Downwind 2	10/11/2023	Not detected at an RL of 0.0000432 µg/m ³ .
NTCRA-SPY-U1-Cr6-20231011	SPY- Upwind	10/11/2023	Not detected at an RL of 0.0000421 µg/m ³ .
NTCRA-SPY-U1-Cr6-20231011-Dup	SPY- Upwind	10/11/2023	Not detected at an RL of 0.0000425 µg/m ³ .
NTCRA-SPY-D1-Cr6-20231018	SPY- Downwind 1	10/18/2023	Not detected at an RL of 0.000036 µg/m ³ .
NTCRA-SPY-D2-Cr6-20231018	SPY- Downwind 2	10/18/2023	Not detected at an RL of 0.0000359 µg/m ³ .
NTCRA-SPY-U1-Cr6-20231018	SPY- Upwind	10/18/2023	Detect of 0.0000863 µg/m ³ .
NTCRA-SPY-D1-Cr6-20231025	SPY- Downwind 1	10/25/2023	Detect of 0.0000393 µg/m ³ .

Location ID	Location	Sampling Date	Analytical Results
NTCRA-SPY-D2-Cr6-20231025	SPY- Downwind 2	10/25/2023	Not detected at an RL of 0.0000361 µg/m ³ .
NTCRA-SPY-U1-Cr6-20231025	SPY- Upwind	10/25/2023	Not detected at an RL of 0.0000352 µg/m ³ .
NTCRA-SWMU1-1-D1-Cr6-20231025	BAT CAVE WASH- Downwind 1	10/25/2023	Not detected at an RL of 0.0000388 µg/m ³ .
NTCRA-SWMU1-1-Tent-Cr6-231025	BAT CAVE WASH- Tent	10/25/2023	Not detected at an RL of 0.0000405 µg/m ³ .
NTCRA-SWMU1-1-U1-Cr6-20231025	BAT CAVE WASH- Upwind	10/25/2023	Not detected at an RL of 0.0000396 µg/m ³ .
NTCRA-SPY-D1-Cr6-20231101	SPY- Downwind 1	11/1/2023	Not detected at an RL of 0.0000341 µg/m ³ .
NTCRA-SPY-D2-Cr6-20231101	SPY- Downwind 2	11/1/2023	Not detected at an RL of 0.0000358 µg/m ³ .
NTCRA-SPY-U1-Cr6-20231101	SPY- Upwind	11/1/2023	Not detected at an RL of 0.0000344 µg/m ³ .
NTCRA-SWMU1-1-D1-Cr6-20231113	BAT CAVE WASH- Downwind 1	11/13/2023	Not detected at an RL of 0.0000362 µg/m ³ .
NTCRA-SWMU1-1-U1-Cr6-20231113	BAT CAVE WASH- Upwind	11/13/2023	Not detected at an RL of 0.0000348 µg/m ³ .
NTCRA-SWMU1-2-D1-Cr6-20231206	BAT CAVE WASH- Downwind 1	12/6/2023	Not detected at an RL of 0.0000328 µg/m ³ .
NTCRA-SWMU1-2-Tent-Cr6-231206	BAT CAVE WASH- Tent	12/6/2023	Not detected at an RL of 0.0000331 µg/m ³ .
NTCRA-SWMU1-2-U1-Cr6-20231206	BAT CAVE WASH- Upwind	12/6/2023	Not detected at an RL of 0.0000324 µg/m ³ .
NTCRA-SWMU1-2-D1-Cr6-20231208	BAT CAVE WASH- Downwind 1	12/8/2023	Not detected at an RL of 0.0000405 µg/m ³ .
NTCRA-SWMU1-2-Tent-Cr6-231208	BAT CAVE WASH- Tent	12/8/2023	Not detected at an RL of 0.0000402 µg/m ³ .
NTCRA-SWMU1-2-TentCr6231208Dup	BAT CAVE WASH- Tent	12/8/2023	Not detected at an RL of 0.00004 µg/m ³ .
NTCRA-SWMU1-2-U1-Cr6-20231208	BAT CAVE WASH- Upwind	12/8/2023	Not detected at an RL of 0.0000405 µg/m ³ .
NTCRA-SWMU1-2-D1-Cr6-20231213	BAT CAVE WASH- Downwind 1	12/13/2023	Not detected at an RL of 0.0000366 µg/m ³ .
NTCRA-SWMU1-2-Tent-Cr6-231213	BAT CAVE WASH- Tent	12/13/2023	Not detected at an RL of 0.0000355 µg/m ³ .
NTCRA-SWMU1-2-U1-Cr6-20231213	BAT CAVE WASH- Upwind	12/13/2023	Not detected at an RL of 0.0000358 µg/m ³ .
NTCRA-SPY-D1-Cr6-20240109	SPY- Downwind 1	1/9/2024	Not detected at an RL of 0.0000414 µg/m ³ .
NTCRA-SPY-U1-Cr6-20240109	SPY- Upwind	1/9/2024	Not detected at an RL of 0.0000403 µg/m ³ .
NTCRA-SPY-D1-Cr6-20240115	SPY- Downwind 1	1/15/2024	Not detected at an RL of 0.0000515 µg/m ³ .
NTCRA-SPY-U1-Cr6-20240115	SPY- Upwind	1/15/2024	Detect of 0.0000838 µg/m ³ .

Location ID	Location	Sampling Date	Analytical Results
NTCRA-SPY-U1-Cr6-20240115-Dup	SPY- Upwind	1/15/2024	Detect of 0.0000965 µg/m ³ .
NTCRA-SPY-D1-Cr6-20240131	SPY- Downwind 1	1/31/2024	Not detected at an RL of 0.0000363 µg/m ³ .
NTCRA-SPY-D2-Cr6-20240131	SPY- Downwind 2	1/31/2024	Not detected at an RL of 0.0000365 µg/m ³ .
NTCRA-SPY-U1-Cr6-20240131	SPY- Upwind	1/31/2024	Not detected at an RL of 0.0000363 µg/m ³ .
NTCRA-SPY-U1-Cr6-20240131-Dup	SPY- Upwind	1/31/2024	Not detected at an RL of 0.0000364 µg/m ³ .
NTCRA-SPY-D1-Cr6-20240213	SPY- Downwind 1	2/13/2024	Not detected at an RL of 0.0000402 µg/m ³ .
NTCRA-SPY-U1-Cr6-20240213	SPY- Upwind	2/13/2024	Not detected at an RL of 0.0000408 µg/m ³ .
NTCRA-SPY-U1-Cr6-20240213-Dup	SPY- Upwind	2/13/2024	Not detected at an RL of 0.00004 µg/m ³ .
NTCRA-SPY-D1-Cr6-20240222	SPY- Downwind 1	2/22/2024	Not detected at an RL of 0.0000433 µg/m ³ .
NTCRA-SPY-D2-Cr6-20240222	SPY- Downwind 2	2/22/2024	Not detected at an RL of 0.0000419 µg/m ³ .
NTCRA-SPY-U1-Cr6-20240222	SPY- Upwind	2/22/2024	Not detected at an RL of 0.0000388 µg/m ³ .
NTCRA-SPY-U1-Cr6-20240222-Dup	SPY- Upwind	2/22/2024	Not detected at an RL of 0.0000387 µg/m ³ .
NTCRA-SPY-D1-Cr6-20240229	SPY- Downwind 1	2/29/2024	Not detected at an RL of 0.0000457 µg/m ³ .
NTCRA-SPY-U1-Cr6-20240229	SPY- Upwind	2/29/2024	Not detected at an RL of 0.0000461 µg/m ³ .
NTCRA-SPY-D1-Cr6-20240318	SPY- Downwind 1	3/18/2024	Not detected at an RL of 0.0000284 µg/m ³ .
NTCRA-SPY-U1-Cr6-20240318	SPY- Upwind	3/18/2024	Not detected at an RL of 0.0000289 µg/m ³ .
NTCRA-SPY-U1-Cr6-20240318-Dup	SPY- Upwind	3/18/2024	Not detected at an RL of 0.0000270 µg/m ³ .
NTCRA-SPY-D1-Cr6-20240408	SPY- Downwind 1	4/8/2024	Not detected at an RL of 0.0000422 µg/m ³ .
NTCRA-SPY-U1-Cr6-20240408	SPY- Upwind	4/8/2024	Not detected at an RL of 0.0000412 µg/m ³ .
NTCRA-SPY-U1-Cr6-20240408-Dup	SPY- Upwind	4/8/2024	Not detected at an RL of 0.0000413 µg/m ³ .

µg/m³ = microgram(s) per cubic meter

PG&E = Pacific Gas and Electric Company

RL = reporting limit

SPY = soil-processing yard

Table 2-8. Perimeter Air Sampling Results – Mercury
Soil Non-Time Critical Removal Action (NTCRA) Air Monitoring Report
PG&E Topock Compressor Station, Needles, California

Location ID	Location	Sampling Date	Analytical Results
NTCRA-SPY-U1-Hg-20230724	SPY- Upwind	7/24/2023	Not detected at an RL of 0.023 µg/m ³ .
NTCRA-SPY-D1-Hg-20230724	SPY- Downwind 1	7/24/2023	Not detected at an RL of 0.023 µg/m ³ .
NTCRA-SPY-D1-Hg-20230724-DUP	SPY- Downwind 1	7/24/2023	Not detected at an RL of 0.034 µg/m ³ .
NTCRA-SPY-D2-Hg-20230724	SPY- Downwind 2	7/24/2023	Not detected at an RL of 0.023 µg/m ³ .
NTCRA-AOC10-1-U1-Hg-20230726	EAST RAVINE- Upwind	7/26/2023	Not detected at an RL of 0.023 µg/m ³ .
NTCRA-AOC10-1-D1-Hg-20230726	EAST RAVINE- Downwind 1	7/26/2023	Not detected at an RL of 0.025 µg/m ³ .
NTCRA-AOC10-1-D1-Hg-20230726-Dup	EAST RAVINE- Downwind 1	7/26/2023	Not detected at an RL of 0.025 µg/m ³ .
NTCRA-AOC10-1-D2-Hg-20230726	EAST RAVINE- Downwind 2	7/26/2023	Not detected at an RL of 0.025 µg/m ³ .
NTCRA-AOC10-1-U1-Hg-20230830	EAST RAVINE- Upwind	8/30/2023	Not detected at an RL of 0.030 µg/m ³ .
NTCRA-AOC10-1-U1-Hg-20230830-Dup	EAST RAVINE- Upwind	8/30/2023	Not detected at an RL of 0.030 µg/m ³ .
NTCRA-AOC10-1-D1-Hg-20230830	EAST RAVINE- Downwind 1	8/30/2023	Not detected at an RL of 0.030 µg/m ³ .
NTCRA-AOC10-1-D2-Hg-20230830	EAST RAVINE- Downwind 2	8/30/2023	Not detected at an RL of 0.029 µg/m ³ .
NTCRA-AOC10-1-D1-Hg-20230906	EAST RAVINE- Downwind 1	9/6/2023	Not detected at an RL of 0.031 µg/m ³ .
NTCRA-AOC10-1-D2-Hg-20230906	EAST RAVINE- Downwind 2	9/6/2023	Not detected at an RL of 0.032 µg/m ³ .
NTCRA-AOC10-1-U1-Hg-20230906	EAST RAVINE- Upwind	9/6/2023	Not detected at an RL of 0.028 µg/m ³ .
NTCRA-AOC14-SE-Hg-20240111	AOC14 - Downwind	1/11/2024	Not detected at an RL of 0.036 µg/m ³ .
NTCRA-AOC14-NW-Hg-20240111	AOC14 - Upwind	1/11/2024	Not detected at an RL of 0.037 µg/m ³ .

µg/m³ = microgram(s) per cubic meter

AOC = area of concern

PG&E = Pacific Gas and Electric Company

RL = reporting limit

SPY = soil-processing yard

Table 2-9. Perimeter Air Sampling Results – Asbestos
Soil Non-Time Critical Removal Action (NTCRA) Air Monitoring Report
PG&E Topock Compressor Station, Needles, California

Location ID	Location	Sampling Date	Analytical Results
NTCRA-SPY-D1-Asbestos-20230426	SPY- Downwind 1	4/26/2023	Not detected at an RL of 0.0007 f/cm ³ .
NTCRA-SPY-D2-Asbestos-20230426	SPY- Downwind 2	4/26/2023	Not detected at an RL of 0.0007 f/cm ³ .
NTCRA-AOC27 I-40-Asb-20231010	AOC27 - Downwind	10/10/2023	Not detected at an RL of 0.0013 f/cm ³ .
NTCRA-AOC27 BCW-Asb-20231010	AOC27 - Upwind	10/10/2023	Not detected at an RL of 0.0009 f/cm ³ .
NTCRA-AOC14-NW-Asb-20231113	AOC14 - Upwind	11/13/2023	Not detected at an RL of 0.0010 f/cm ³ .
NTCRA-AOC14-NE-Asb-20231113	AOC14 – Downwind 1	11/13/2023	Not detected at an RL of 0.0009 f/cm ³ .
NTCRA-AOC14-SE-Asb-20231113	AOC14 – Downwind 2	11/13/2023	Not detected at an RL of 0.0010 f/cm ³ .
NTCRA-AOC14-NW-Asb-20231114	AOC14 – Upwind	11/14/2023	Not detected at an RL of 0.0010 f/cm ³ .
NTCRA-AOC14-SE-Asb-20231114	AOC14 - Downwind	11/14/2023	Not detected at an RL of 0.0010 f/cm ³ .

AOC = area of concern

f/cm³ = fiber(s) per cubic centimeter

ID = identification

PG&E = Pacific Gas and Electric Company

RL = reporting limit

SPY = soil-processing yard

Table 2-10. Perimeter Air Sampling Results – Dioxins and Furans
Soil Non-Time Critical Removal Action (NTCRA) Air Monitoring Report
PG&E Topock Compressor Station, Needles, California

Location ID	Location	Sampling Date	Analytical Results
NTCRA-AOC11-U1-DF-20220726	AOC11- Upwind	7/26/2022	No LOC exceedances.
NTCRA-AOC11-D1-DF-20220726	AOC11- Downwind 1	7/26/2022	No LOC exceedances.
NTCRA-AOC11-D2-DF-20220726	AOC11- Downwind 2	7/26/2022	No LOC exceedances.
NTCRA-SPY-U1-DF-20220727	SPY- Upwind	7/27/2022	No LOC exceedances.
NTCRA-SPY-D1-DF-20220727	SPY- Downwind 1	7/27/2022	No LOC exceedances.
NTCRA-SPY-D2-DF-20220727	SPY- Downwind 2	7/27/2022	No LOC exceedances.
NTCRA-SPY-D2-DF-20220727-Dup	SPY- Downwind 2	7/27/2022	No LOC exceedances.
NTCRA-AOC11-U1-DF-20220915	AOC11- Upwind	9/15/2022	No LOC exceedances.
NTCRA-AOC11-D1-DF-20220915	AOC11- Downwind 1	9/15/2022	No LOC exceedances.
NTCRA-AOC11-D2-DF-20220915	AOC11- Downwind 2	9/15/2022	No LOC exceedances.
NTCRA-SPY-U1-DF-20220929	SPY- Upwind	9/29/2022	No LOC exceedances.
NTCRA-SPY-D1-DF-20220929	SPY- Downwind 1	9/29/2022	No LOC exceedances.
NTCRA-SPY-D2-DF-20220929	SPY- Downwind 2	9/29/2022	No LOC exceedances.
NTCRA-SWMU1-1-U1-DF-20221009	BAT CAVE WASH- Downwind 1	10/9/2022	No LOC exceedances.
NTCRA-SWMU1-1-D1-DF-20221009	BAT CAVE WASH- Downwind 2	10/9/2022	No LOC exceedances.
NTCRA-SWMU1-1-D2-DF-20221009	BAT CAVE WASH- Downwind 2	10/9/2022	No LOC exceedances.
NTCRA-SWMU1-1-U1-DF-20221012	BAT CAVE WASH- Upwind	10/12/2022	No LOC exceedances.
NTCRA-SWMU1-1-D1-DF-20221012	BAT CAVE WASH- Downwind 1	10/12/2022	No LOC exceedances.
NTCRA-SWMU1-1-D2-DF-20221012	BAT CAVE WASH- Downwind 2	10/12/2022	No LOC exceedances.
NTCRA-SWMU1-1-D2-DF-20221012-Dup	BAT CAVE WASH- Downwind 2	10/12/2022	No LOC exceedances.
NTCRA-AOC10-2-U1-DF-20221115	AOC10- Upwind	11/15/2022	No LOC exceedances.
NTCRA-AOC10-2-D1-DF-20221115	AOC10- Downwind 1	11/15/2022	No LOC exceedances.
NTCRA-AOC10-2-D1-DF-20221115-Dup	AOC10- Downwind 1	11/15/2022	No LOC exceedances.
NTCRA-AOC10-2-D2-DF-20221115	AOC10- Downwind 2	11/15/2022	No LOC exceedances.
NTCRA-SWMU1-1-U1-DF-20230118	BAT CAVE WASH- Upwind	1/18/2023	No LOC exceedances.
NTCRA-SWMU1-1-D1-DF-20230118	BAT CAVE WASH- Downwind 1	1/18/2023	No LOC exceedances.
NTCRA-SWMU1-1-D1-DF-20230118-Dup	BAT CAVE WASH- Downwind 1	1/18/2023	No LOC exceedances.
NTCRA-SWMU1-1-D2-DF-20230118	BAT CAVE WASH- Downwind 2	1/18/2023	No LOC exceedances.
NTCRA-SWMU1-1-U1-DF-20230126	BAT CAVE WASH- Upwind	1/26/2023	No LOC exceedances.
NTCRA-SWMU1-1-D1-DF-20230126	BAT CAVE WASH- Downwind 1	1/26/2023	No LOC exceedances.
NTCRA-SWMU1-1-D2-DF-20230126	BAT CAVE WASH- Downwind 2	1/26/2023	No LOC exceedances.
NTCRA-SPY-U1-DF-20230126	SPY- Upwind	1/26/2023	No LOC exceedances.
NTCRA-SPY-D1-DF-20230126	SPY- Downwind 1	1/26/2023	No LOC exceedances.
NTCRA-SPY-D2-DF-20230126	SPY- Downwind 2	1/26/2023	No LOC exceedances.
NTCRA-SWMU1-1-U1-DF-20230621	BAT CAVE WASH- Upwind	6/21/2023	No LOC exceedances.
NTCRA-SWMU1-1-D1-DF-20230621	BAT CAVE WASH- Downwind 1	6/21/2023	No LOC exceedances.

Location ID	Location	Sampling Date	Analytical Results
NTCRA-SWMU1-1-D2-DF-20230621	BAT CAVE WASH- Downwind 2	6/21/2023	No LOC exceedances.
NTCRA-SPY-U1-DF-20230626	SPY- Upwind	6/26/2023	No LOC exceedances.
NTCRA-SPY-D1-DF-20230626	SPY- Downwind 1	6/26/2023	No LOC exceedances.
NTCRA-SPY-D1-DF-20230626-Dup	SPY- Downwind 1	6/26/2023	No LOC exceedances.
NTCRA-SPY-D2-DF-20230626	SPY- Downwind 2	6/26/2023	No LOC exceedances.
NTCRA-SPY-U1-DF-20230816	SPY- Upwind	8/16/2023	No LOC exceedances.
NTCRA-SPY-D1-DF-20230816	SPY- Downwind 1	8/16/2023	No LOC exceedances.
NTCRA-SPY-D2-DF-20230816	SPY- Downwind 2	8/16/2023	No LOC exceedances.
NTCRA-SPY-D2-DF-20230816-Dup	SPY- Downwind 2	8/16/2023	No LOC exceedances.
NTCRA-SPY-U1-DF-20230907	SPY- Upwind	9/7/2023	No LOC exceedances.
NTCRA-SPY-D1-DF-20230907	SPY- Downwind 1	9/7/2023	No LOC exceedances.
NTCRA-SPY-D2-DF-20230907	SPY- Downwind 2	9/7/2023	No LOC exceedances.
NTCRA-SWMU1-1-U1-DF-20230921	BAT CAVE WASH- Upwind	9/21/2023	No LOC exceedances.
NTCRA-SWMU1-1-D1-DF-20230921	BAT CAVE WASH- Downwind 1	9/21/2023	No LOC exceedances.
NTCRA-SWMU1-1-Tent-DF-20230921	BAT CAVE WASH- Tent	9/21/2023	No LOC exceedances.
NTCRA-SPY-U1-D/F-20231011	SPY- Upwind	10/11/2023	No LOC exceedances.
NTCRA-SPY-U1-D/F-20231011-Dup	SPY- Upwind	10/11/2023	No LOC exceedances.
NTCRA-SPY-D1-D/F-20231011	SPY- Downwind 1	10/11/2023	No LOC exceedances.
NTCRA-SPY-D2-D/F-20231011	SPY- Downwind 2	10/11/2023	No LOC exceedances.
NTCRA-SWMU1-1-U1-D/F-20231025	BAT CAVE WASH- Upwind	10/25/2023	No LOC exceedances.
NTCRA-SWMU1-1-D1-D/F-20231025	BAT CAVE WASH- Downwind 1	10/25/2023	No LOC exceedances.
NTCRA-SWMU1-1-Tent-D/F-20231025	BAT CAVE WASH- Tent	10/25/2023	No LOC exceedances.
NTCRA-SPY-U1-D/F-20231101	SPY- Upwind	11/1/2023	No LOC exceedances.
NTCRA-SPY-D2-D/F-20231101	SPY- Downwind 2	11/1/2023	No LOC exceedances.

AOC = area of concern

ID = identification

LOC = level of concern

PG&E = Pacific Gas and Electric Company

SPY = soil-processing yard

SWMU = solid waste management unit

Figure



LEGEND

- Transportation Route
- Target Action Area
- Work Area Boundary
- Staging Area
- Topock Compressor Station Fence Line

0 100 200 Feet

Aerial photo date 2011, 2017
 Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

**Figure 1-1
 Initially Proposed Soil
 NTCRA Work Areas**

Soil NTCRA Air Monitoring Report
 PG&E Topock Compressor Station,
 Needles, California

Jacobs

Attachment 1
Request for Exemption

Hong, Christina/LAC

From: Alan De Salvio <Adesalvio@mdaqmd.ca.gov>
Sent: Wednesday, May 23, 2018 7:43 AM
To: Hong, Christina/LAC
Cc: gcr4@pge.com
Subject: [EXTERNAL] RE: PG&E Topock Compressor Station groundwater cleanup project -- Request an exemption from Rule 403 Subpart C (Fugitive Dust)

The request for an exemption for the use of air sampler for the purpose of collecting samples for fugitive dust at the PG&E Topock site is granted. I do not believe the MDAQMD required upwind and downwind sampling, but in terms of Rule 403 the exemption is granted.

Alan J. De Salvio

Deputy Director – Mojave Desert Operations
(Antelope Valley AQMD by contract)

(760) 245-1661, ext. 6726 Office

(760) 403-4724 Mobile

(760) 245-2022 Fax



Clean air is everybody's business.

www.MDAQMD.ca.gov



From: Hong, Christina/LAC [mailto:Christina.Hong@jacobs.com]
Sent: Wednesday, May 23, 2018 7:04 AM
To: Alan De Salvio
Cc: gcr4@pge.com
Subject: PG&E Topock Compressor Station groundwater cleanup project -- Request an exemption from Rule 403 Subpart C (Fugitive Dust)

Hi Alan -

Pacific Gas and Electric (PG&E) recently received approvals from the California Department of Toxic Substances Control (DTSC) and the US Department of the Interior (DOI), in April 2018, to start the construction of the groundwater cleanup project at PG&E Topock site in Needles, CA. PG&E is in the process of getting ready for the construction which is currently scheduled to start in early October 2018. The preparatory activities involve planning for the implementation of the fugitive dust control measures specified in DTSC's Final Subsequent EIR (see attached) and the fugitive dust notification signage requirement stated in your letter dated November 20, 2017 (see attached).

During construction of the groundwater remedy, PG&E plans to perform perimeter air monitoring to:

- Evaluate and document the ongoing effectiveness of the fugitive dust control measures prescribed in DTSC's Final Subsequent EIR,
- Guide modifications to field activities and engineering control measures if necessary, and

- Document that construction activities do not result in the migration of soil contaminants beyond the work area boundaries.

The work area boundary will be defined as the exclusion zone perimeter of construction areas within the site's property line. This is a conservative approach because the work areas are typically at some distance from the actual property line. Air monitoring will be performed if construction activities have the potential to generate visible dust. The air monitoring approach is being developed using the MDAQMD Rule 403 limit of 100 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) for particulate matter as fugitive dust as a guideline to determine if additional fugitive dust control is necessary per the dust control plan.

Air will be monitored from one upwind and two downwind locations for dust around the work area boundaries. Because of the Topock site's rugged terrain and potential for high heat exposure during certain times of the year, portability and ease of deployment is essential when choosing equipment. Real-time dust monitoring will be performed with a handheld direct reading instrument (Casella Microdust, or equivalent) capable of reporting to 1 microgram per cubic meter. Dust measurements will be collected hourly, although more frequent monitoring may be performed if deemed necessary by the Air Quality Specialist in charge of the monitoring program.

Other methods, such as upwind and downwind sample collection for fugitive dust using an air sampler per Subpart C of Rule 403 (<http://mdaqmd.ca.gov/home/showdocument?id=294>) are not planned at this time, but may be considered if directed by the MDAQMD. This email requests an exemption for the use of air sampler for the purpose of collecting samples for fugitive dust at the PG&E Topock site.

Please let Curt or myself know if you have any questions or would like to discuss this request.

Thank you for your consideration,

Christina Hong

(626) 297-5292

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Attachment 2 Laboratory Reports

Due to file size, the Laboratory Reports are available upon request.

Attachment 3
Data Quality Evaluation



Topock Compressor Station, Needles, California

Data Quality Evaluation Report for the Air Monitoring Report

Revision 0

August 13, 2024

Pacific Gas and Electric Company



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Attachment

1	Additional Information
A1	Holding Times – Qualified Data
A2	Blank Contamination – Qualified Data
A3	Laboratory Control Sample Exceedances – Qualified Data
A4	Matrix Related Exceedances – Qualified Data
A5	Surrogate Recovery – Qualified Data
A6	Results between the Reporting Level and Method Detection Limit - Qualified Data
A7	Site Completeness by Analyte – Qualified Data

1. Introduction

Samples were collected and analyzed in support of the Non-Time Critical Removal Action (NTCRA) air monitoring activities at the Pacific Gas and Electric Company (PG&E) Topock compressor station near Needles, California, between July 26, 2022 and April 8, 2024. Air monitoring was conducted during construction to:

- Evaluate the ongoing effectiveness of the dust control program
- Guide modifications to field activities and engineering control measures
- Document that construction activities do not result in the migration of soil contaminants beyond the work area boundaries

This Data Quality Evaluation (DQE) report summarizes the results of the quality assurance (QA) and quality control (QC) activities prescribed in the *Air Monitoring Quality Assurance Project Plan (AM QAPP)* (Jacobs 2018) and the *PG&E Program Quality Assurance Project Plan (Program QAPP)* (CH2M 2014). The AM QAPP and Program QAPP identify the method-specific QC requirements for each analytical parameter and matrix, and define a plan to test that the correct sampling, analytical, and data reduction procedures were followed by using audits and data validation.

2. Analytical Data

This DQE report covers 290 air monitoring samples, 38 air monitoring field duplicates (FDs), and other laboratory-related QC samples. These samples were reported by the laboratories in 42 sample delivery groups (SDGs).

CHESTER LabNet Laboratories (CLNT) of Tigard, Oregon, LA Testing Lab (LATP) of South Pasadena, California, and Pace Analytical Services, LLC (PACE) of Minneapolis, Minnesota performed the required analyses. All laboratories are certified by the California Department of Health Service's Environmental Laboratory Accreditation Program for the analyses included in this report, as appropriate. Samples were analyzed for one or more of the analytes and methods listed in Table 1.

Table 1. Analytical Parameters

Parameter	Method	Laboratory
Cr(VI)	CARB MLDO39 and ASTM D7614-12	CLNT
D/F	EPA TO-9	PACE
Asbestos	NIOSH 7402	LATP
Mercury	OSHA ID-145	LATP

Sources: CARB 2018; ASTM 2020; EPA 2007, 2009; NIOSH 2022; OSHA 1989.

ASTM = ASTM International

CARB = California Air Resources Board

Cr(VI) = hexavalent chromium

D/F = dioxin and furans

EPA = U.S. Environmental Protection Agency

MLD = method

NIOSH = the National Institute for Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

TO-9 = Toxic Organics – 9

The SDGs were evaluated by Jacobs Chemists for data quality. Analytical performance was initially assessed on an SDG or an analytical batch basis. The association of laboratory QC samples and environmental samples from the same analytical batches is determined by the laboratory lot control number. A Level 2 data validation protocol as described in Section 6.3 of the Program QAPP was used in the assessment of the data.

The assessment includes a review of:

- Chain-of-custody (CoC) documentation
- Holding-time (HT) compliance
- Required QC samples at the specified frequencies
- Method blanks
- Laboratory control sample (LCS)
- Matrix post-spike (MPS) samples

Data flags were assigned according to the QC acceptance limits defined in the AM QAPP. These flags, as well as the reason for each flag, are entered into the electronic database and are available to data users.

Multiple flags can routinely be applied to a specific sample method, matrix, and analyte combination; but there will be only one final flag. As discussed in this section, a final flag is applied to the data based on the flags entered into the database and is the most conservative of the applied validation flags. The final flag also includes matrix and blank sample impacts.

Data flags can be separated into the following two categories to be used in estimating both contractor and analytical completeness:

- 1) Flags caused by laboratory deviation from requirements in the AM QAPP
- 2) Flags applied because of the nature of the sample matrix or method limitations

The categories of data flags are tracked in the database and used to calculate both contractual and analytical completeness. The database keeps track of the type of protocol violation, and contractual and analytical completeness during data validation.

The data flags are those listed in the Program QAPP and are defined as follows:

- J = Analyte was present, but reported value may not be accurate or precise because one or more QC specifications was not met, or the concentration is greater than the method detection limit (MDL) but less than the project quantitation limit.
- R = The result has been rejected; identification or quantitation could not be verified because critical QC specifications were not met.
- U = Analyte was analyzed for but not detected at the specified detection limit.
- UJ = Analyte was analyzed for but not detected. The sample quantitation limit is estimated.

In addition, the following flags, which have no QC implications and are not listed in the Program QAPP, were used:

- None = A database flag with no QC implications. A flag is not applied. This is a placeholder for calculating QC criteria issues that do not require flagging.
- Exclude = A database flag with no QC implications. When multiple data points have been reported, such as dilutions or re-extractions, the data that best matches Program QAPP QC requirements are presented to the data users, and the remainders are marked with this flag.

3. Data Assessment

Attachment 1 Tables A1 through A7 provide the overall summaries of the data validation findings. The tables contain the following information:

- **Table A1 – Holding Times – Qualified Data:** Presents the data qualified due to HT exceedances.
- **Table A2 – Blank Contamination – Qualified Data:** Presents the data qualified due to laboratory or field blank contamination.
- **Table A3 – Laboratory Control Sample Exceedances – Qualified Data:** Presents the data qualified because of LCS criteria exceedances.
- **Table A4 – Matrix-related Exceedances – Qualified Data:** Present the data qualified because of matrix-related exceedances.
- **Table A5 – Surrogate Recovery – Qualified Data:** Presents the data qualified because of surrogate recovery exceedances.
- **Table A6 – Results Between the Reporting Limit and Method Detection Limit – Qualified Data:** Presents the results estimated because the result is between the reporting limit (RL) and the MDL.
- **Table A7 – Site Completeness by Analyte – Qualified Data:** Presents the percent completeness by analyte, matrix, and method.

The data assessment included a review of the activities described in this section.

3.1 Holding Time

HT exceedances result in the possible loss of target analytes due to degradation or chemical reactions that usually cause a negative bias to sample results. Detected and nondetected sample results that marginally exceeded the method-recommended HT are qualified as estimated and flagged “J” and “UJ.”

All sample results affected by HTs are listed in Table A1 and are summarized as follows:

- Three D/F samples were prepared outside the method-recommended sample preparation HT of 7 days. The samples were delivered to the laboratory after the sample preparation HT had expired. Seven detected results were qualified as estimated and flagged “J,” and 68 nondetected results were qualified as estimated and flagged “UJ.”

3.2 Calibration

All calibration criteria were met.

3.3 Method Blanks and Trip Blanks

Laboratory method blanks (LBs) are used to monitor each preparation or analytical batch for contamination throughout the entire analytical process from sources such as glassware, reagents, instrumentation, and other potential contaminant sources within the laboratory. Trip blanks (TBs) were used to monitor for cross-contamination from the filter media used to capture a target analyte. If a target analyte is detected in the LB or TB, similar detections in the samples are possibly artifacts of laboratory contamination. Therefore, sample results are qualified as not detected and flagged “U.”

LBs and TBs were analyzed at the required frequency, and all sample results affected by TB contamination are listed in Table A2 and are summarized as follows:

- Cr(VI) was detected less than the RL in one or more TBs. A total of 13 associated detected sample results were less than or equal to 5 times the blank concentration and were qualified as not detected and flagged "U."

Various D/F congeners were detected less than the RL in one or more TBs. A total of 158 associated detected sample results were less than or equal to 5 times the blank concentration and were qualified as not detected and flagged "U." Additionally, D/F congeners were also detected less than the RL in one or more LBs. A total of 118 associated detected sample results were less than or equal to 5 times the blank concentration and were qualified as not detected and flagged "U."

3.4 Laboratory Control Samples

An LCS measures laboratory accuracy. Accuracy is the degree of agreement between a measured value and the expected value. The LCS is prepared from laboratory deionized or reagent-grade water and spiked with known amounts of the target analytes of interest. Recovery of analytes outside of QC limits generally indicates a problem with the analytical procedure. A low LCS recovery indicates that the target analyte in associated samples is likely biased low. Associated detected sample results are qualified as estimated and flagged "J," and nondetected results are flagged "UJ."

Likewise, a high LCS recovery indicates that the target analyte in associated samples is likely biased high. Associated detected results are qualified as estimated and flagged "J." Nondetected results associated with a high bias recovery are not qualified.

When the LCS recoveries were less than 10%, the associated detected sample results are qualified as estimated and flagged "J." Associated nondetected sample results are rejected from project use and flagged "R" unless professional judgment was used.

All sample results affected by LCS accuracy exceedances are listed in Table A3 and are summarized as follows:

- One LCS for Cr(VI) had a recovery greater than the upper control limit (UCL). In addition, the LCS/LCS duplicate pair exceeded the relative percent difference (RPD) acceptance criteria of less than 20%. Six associated detected sample results were qualified as estimated and flagged "J."
- One LCS for 1,2,3,4,6,7,8-heptachlorodibenzofuran (HpCDF) had a recovery greater than the UCL. In addition, the LCS/LCS duplicate pair exceeded the RPD acceptance criteria of less than 20%. Five associated detected sample results were qualified as estimated and flagged "J."
- The recoveries for 1,2,3,4,7,8-hexachlorodibenzo-p-dioxin (HxCDD), 1,2,3,7,8,9-hexachlorodibenzofuran, or octachlorodibenzofuran (OCDF) were either greater than the UCL or less than the lower control limit (LCL) in one LCS. Three associated detected sample results were qualified as estimated and flagged "J," and 10 nondetected results were qualified as estimated and flagged "UJ."
- The LCS/LCS duplicate pair exceeded the RPD acceptance criteria of less than 20% for OCDF. Four associated detected sample results were qualified as estimated and flagged "J."

3.5 Matrix Post-spike Samples

MPS recoveries are used to evaluate the effect of the sample matrix on the recovery of target analytes. A sample is fortified with a known quantity of a target analyte after sample preparation. MPS recoveries

outside the QC limits may indicate that the sample's matrix is affecting the method's ability to accurately quantify the target analyte in the associated sample or samples from similar locations. A low MPS recovery generally indicates a negative bias in the sample data. Associated parent detected sample results were qualified as estimated and flagged "J," and nondetected results were flagged "UJ."

When the MPS recoveries were less than 10%, the associated parent sample detected results were qualified as estimated and flagged "J." For associated nondetected parent samples, the results were rejected from project use and flagged "R" unless professional judgment was used.

A high MPS recovery indicates a potential positive bias to the associated sample data. The associated parent detected results were qualified as estimated and flagged "J." Nondetected parent results associated with a high bias recovery were not qualified.

All MPS accuracy criteria were met.

3.6 Other Matrix-related Quality Control Exceedances

In accordance with EPA Method 8290 for D/F, individual isomers reported by the laboratory as estimated maximum possible concentrations (EMPCs) were qualified as nondetects and flagged "U." A total of 28 sample results were qualified. In addition, a total of 57 sample results were qualified as nondetect and flagged "U" due to polychlorinated diphenyl ether (PCDE) interference. Table A4 lists the exceedances.

3.7 Field Duplicates

An FD, or collocated sample, is an independent sample collected as close as possible to the original sample from the same source under identical conditions. FDs are to be collected in the field for 10% or more of the samples collected for analysis during each sampling event, by matrix and method, and are used to document sampling and analytical precision and representativeness.

FDs were actually collected at a frequency of 10%. The RPD criterion for FDs is 40%. When precision criteria are not met, detected sample results are qualified as estimated and flagged "J," and nondetected results are flagged "UJ."

All FD precision criteria were met.

3.8 Laboratory Duplicates

A laboratory duplicate is a separate sample aliquot that is subjected to the same preparation and analytical procedures as the native sample. Laboratory duplicates were analyzed to measure the precision of sample results reported as required by the analytical method. Precision is expressed in terms of the RPD between the native and laboratory duplicate sample results. The RPD criterion for laboratory duplicates is 20%. When precision criteria are not met, detected sample results are qualified as estimated and flagged "J," and nondetected results are flagged "UJ."

All laboratory duplicate precision criteria were met.

3.9 Surrogates

Surrogates are primarily used in organic chromatography methods and are added before sample preparation. The surrogates are added to all samples, standards, and blanks in an analytical run and provide a measurement to determine recovery for every sample matrix. Surrogate compounds are chosen

to represent the various chemistries of the target analytes in a specific method. A low surrogate recovery indicates that the target analytes in associated samples is likely biased low. Associated detected and nondetected sample results were qualified as estimated and flagged "J" and "UJ."

Likewise, a high surrogate recovery indicates that the target analytes in associated samples is likely biased high. Associated detected results were qualified as estimated and flagged "J," and nondetected results associated with a high bias recovery were not qualified. When the surrogate recoveries were less than 10%, the associated parent sample detected result was qualified as estimated and flagged "J," and associated nondetected parent sample result was rejected from project use and flagged "R" unless professional judgment was used.

All sample results affected by surrogate accuracy exceedances are listed in Table A5 and are summarized as follows:

- One or more D/F surrogate recoveries from 59 air samples were either greater than the UCL or less than the LCL. A total of 17 associated detected sample results were qualified as estimated and flagged "J," and 120 associated nondetected sample results were qualified as estimated and flagged "UJ."

3.10 Chain of Custody and Sample Receipt

Samples are collected under CoC to verify that sample integrity is documented and known from the time of collection through receipt at the laboratory, when custody is relinquished to the laboratory.

Each sample was documented on a completed CoC form and received by the laboratory in good condition. All discrepancies identified by the laboratory were promptly resolved.

3.11 Low-level Detects

Sample results between the MDL and the RL were flagged "J" and are represented in Table A4, which shows the final flag applied after data validation. The qualified results represent values determined at levels where the true value of the measured chemical could not be quantified with a high degree of confidence. The laboratory data met the RLs specified in the AM QAPP. All data flagged for low-level imprecision were the result of the sample concentrations and were not related to laboratory performance. The data user may consider these qualified results as estimates when making project decisions.

4. Overall Data Review

The goal of this review is to demonstrate that enough representative samples were collected, and the resulting analytical data can be used to support the decision-making process. The procedures for assessing the precision, accuracy, representativeness, completeness, and comparability parameters (PARCC) are addressed in the Program QAPP and AM QAPP. The following summary highlights the PARCC findings for the events defined in this DQE report:

- Precision of the data was verified through the review of the laboratory data quality indicators that include LCS and laboratory control sample duplicate (LCSD) and laboratory duplicate RPDs. Precision was acceptable, except for six results that were qualified as estimated due to LCS/LCSD RPD issues. Overall, 15 results out of approximately 1,750 total results (approximately 0.9%) were qualified for precision exceptions.
- Accuracy of the data was verified through the review of the calibration, EMPCs, LCS, MPS, and surrogate recoveries, as well as the evaluation of the method blank and TB data. Accuracy was acceptable, except for a number of results being qualified as estimated detected and nondetected results due to EMPC, LCS, or surrogate recovery issues. Overall, 247 results out of approximately 1,750 total results (approximately 14.1%) were qualified for accuracy exceptions. Analytical and field blank data were free of contamination, with a number of analytical results being qualified as nondetect. Overall, 91 results out of approximately 1,750 total results (approximately 5.2%) were qualified for blank contamination.
- Representativeness of the data was verified through the sample's collection, storage, and verification of HT compliance. No issues were reported for sample collection or storage procedures. A total of 75 analytical results were qualified as estimated detected and nondetected results due to HT exceedances. All other data were reported from analyses within the EPA-recommended HT for each method.
- Comparability of the data was verified through the use of standard EPA analytical procedures and standard units for reporting. Results obtained are comparable to industry standards in that the collection and analytical techniques followed approved, documented procedures.
- Sensitivity is a measurement based upon the analytical method RLs determined by each subcontract laboratory. The analytical reporting limits were determined based upon the completion of instrument-specific MDL studies performed annually in accordance with the *Code of Federal Regulations*, Title 40, Part 136, Appendix B (EPA 1984). The RLs are generally established by multiplying the MDL by a factor of 3 to 5, as recommended by generally accepted laboratory practice, and is further supported by the lowest-level analytical standard in the initial calibration process. Sensitivity is verified through compliance with the RLs specified in the Program QAPP and AM QAPP. Any nondetect results that were reported by the laboratory, or were flagged nondetect due to blank contamination, have been evaluated against the project screening levels, as discussed in the AM QAPP.
- Completeness is a measure of the number of valid measurements obtained in relation to the total number of measurements planned. Completeness is expressed as the percentage of valid or usable measurements compared to planned measurements. Valid data are defined as data that are not rejected for project use. The completeness goal of greater than 90% was met for all analyte and methods as listed in Table A7.

Evaluation of 100% of the chemical data was performed by using the Program QAPP and AM QAPP as a guide for the DQE. The overall completeness was met, and no other systematic protocol errors were identified during the monitoring of the field or laboratory efforts. This, along with the PARCC evaluation, demonstrate that the overall quality of the analytical program and laboratory are sufficient to meet the project data quality objectives, and the data are considered usable for making project decisions.

5. Data Management

Sampling activity logs and laboratory analytical data are maintained in a project database or in project files, as appropriate. Data were collected and include the items described in this section.

5.1 Field Data

Field data were recorded in the following reports and logs:

- Daily field progress reports
- Field worksheets
- Daily field notebooks
- Groundwater sample collection logs
- CoC reports

5.2 Laboratory Data

Laboratory data include the following:

- Laboratory data packages grouped by SDG
- Corrective action reports
- Laboratory MDL studies
- Internal data evaluation reports for all data

Laboratory data were received in both hardcopy (portable document format [PDF]) and in electronic comma-delimited American Standard Code for Information Interchange (ASCII) format. The receipt of both data types was logged into the sample-tracking program to determine completeness and laboratory turnaround-time compliance.

All DQE is done using a semi-automated data validation program that uses laboratory hardcopy and electronic data simultaneously. All validation flags and discoveries are entered into the project database and are linked directly to each individual data point. This process compares hardcopy data to electronic data. All data quality validation reports are generated from the electronic database.

The data management system was designed to maintain the usability and integrity of the data through a series of procedures and QC checks that began at the field site and carried through to the generation of data for the user. These data included both the chemical data and field operation information. Both the chemical data and the field data were handled in a relational database.

The laboratory hardcopy PDF report and electronic data are stored in the project files and project local area network hard drive areas in the Jacobs office in Redding, California. The original field data forms are stored at the Topock project site. Oregon laboratories are required to archive the analytical data as described in the Program QAPP and AM QAPP.

6. References

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- U.S. Environmental Protection Agency (EPA). 2009. *Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Compendium Method TO-9A Determination Of Polychlorinated, Polybrominated and Brominated/Chlorinated Dibenzo-p-Dioxins And Dibenzofurans in Ambient Air*. 2nd Ed. EPA/625/R-96/010b. January. <https://www3.epa.gov/ttnamti1/files/ambient/airtox/to-9arr.pdf>.

Attachment 1
Additional Information

TABLE A1. Holding Times - Qualified Data

Method (Matrix)		Analyte	Holding Time	Result	Holding Time Qualifier	Criteria	Final Flag*
Sample Identification							
EPA TO9 (AIR)							
NTCRA-SPY-D1-DF-20230907	1,2,3,4,6,7,8-Heptachlorodibenzofuran	13 Days	2.4 pg/m3	UJ	HTp>UCL	UJ	
	1,2,3,4,6,7,8-Heptachlorodibenzo-p-di	13 Days	2.4 pg/m3	J	HTp>UCL	U	
	1,2,3,4,7,8,9-Heptachlorodibenzofuran	13 Days	2.9 pg/m3	UJ	HTp>UCL	UJ	
	1,2,3,4,7,8-Hexachlorodibenzofuran	13 Days	0.67 pg/m3	UJ	HTp>UCL	UJ	
	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxi	13 Days	1.1 pg/m3	UJ	HTp>UCL	UJ	
	1,2,3,6,7,8-Hexachlorodibenzofuran	13 Days	1.2 pg/m3	J	HTp>UCL	U	
	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxi	13 Days	0.92 pg/m3	UJ	HTp>UCL	UJ	
	1,2,3,7,8,9-Hexachlorodibenzofuran	13 Days	0.74 pg/m3	UJ	HTp>UCL	UJ	
	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxi	13 Days	0.92 pg/m3	UJ	HTp>UCL	UJ	
	1,2,3,7,8-Pentachlorodibenzofuran	13 Days	2.7 pg/m3	UJ	HTp>UCL	UJ	
	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	13 Days	2.8 pg/m3	UJ	HTp>UCL	UJ	
	2,3,4,6,7,8-Hexachlorodibenzofuran	13 Days	0.63 pg/m3	UJ	HTp>UCL	UJ	
	2,3,4,7,8-Pentachlorodibenzofuran	13 Days	2.7 pg/m3	UJ	HTp>UCL	UJ	
	2,3,7,8-Tetrachlorodibenzofuran	13 Days	1.4 pg/m3	UJ	HTp>UCL	UJ	
	2,3,7,8-Tetrachlorodibenzo-p-dioxin	13 Days	1.5 pg/m3	UJ	HTp>UCL	UJ	
	OCDD	13 Days	24 pg/m3	J	HTp>UCL	U	
	OCDF	13 Days	1.9 pg/m3	UJ	HTp>UCL	UJ	
	Total HpCDD	13 Days	2 pg/m3	UJ	HTp>UCL	UJ	
	Total HpCDF	13 Days	2.4 pg/m3	UJ	HTp>UCL	UJ	
	Total HxCDD	13 Days	0.92 pg/m3	UJ	HTp>UCL	UJ	
	Total HxCDF	13 Days	0.73 pg/m3	J	HTp>UCL	J	
	Total PeCDD	13 Days	2.8 pg/m3	UJ	HTp>UCL	UJ	
	Total PeCDF	13 Days	2.7 pg/m3	UJ	HTp>UCL	UJ	
Total TCDD	13 Days	1.5 pg/m3	UJ	HTp>UCL	UJ		
Total TCDF	13 Days	1.4 pg/m3	UJ	HTp>UCL	UJ		
NTCRA-SPY-D2-DF-20230907	1,2,3,4,6,7,8-Heptachlorodibenzofuran	13 Days	1.8 pg/m3	UJ	HTp>UCL	UJ	
	1,2,3,4,6,7,8-Heptachlorodibenzo-p-di	13 Days	2.2 pg/m3	J	HTp>UCL	U	
	1,2,3,4,7,8,9-Heptachlorodibenzofuran	13 Days	2.1 pg/m3	UJ	HTp>UCL	UJ	
	1,2,3,4,7,8-Hexachlorodibenzofuran	13 Days	0.75 pg/m3	UJ	HTp>UCL	UJ	
	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxi	13 Days	2 pg/m3	UJ	HTp>UCL	UJ	

TABLE A1. Holding Times - Qualified Data

Method (Matrix)	Sample Identification	Analyte	Holding Time	Result	Holding Time Qualifier	Criteria	Final Flag*
EPA TO9 (AIR)							
	NTCRA-SPY-D2-DF-20230907	1,2,3,6,7,8-Hexachlorodibenzofuran	13 Days	0.65 pg/m3	UJ	HTp>UCL	UJ
		1,2,3,6,7,8-Hexachlorodibenzo-p-dioxi	13 Days	1.7 pg/m3	UJ	HTp>UCL	UJ
		1,2,3,7,8,9-Hexachlorodibenzofuran	13 Days	0.83 pg/m3	UJ	HTp>UCL	UJ
		1,2,3,7,8,9-Hexachlorodibenzo-p-dioxi	13 Days	1.7 pg/m3	UJ	HTp>UCL	UJ
		1,2,3,7,8-Pentachlorodibenzofuran	13 Days	2.4 pg/m3	UJ	HTp>UCL	UJ
		1,2,3,7,8-Pentachlorodibenzo-p-dioxin	13 Days	1.9 pg/m3	UJ	HTp>UCL	UJ
		2,3,4,6,7,8-Hexachlorodibenzofuran	13 Days	0.71 pg/m3	UJ	HTp>UCL	UJ
		2,3,4,7,8-Pentachlorodibenzofuran	13 Days	2.5 pg/m3	UJ	HTp>UCL	UJ
		2,3,7,8-Tetrachlorodibenzofuran	13 Days	1.7 pg/m3	UJ	HTp>UCL	UJ
		2,3,7,8-Tetrachlorodibenzo-p-dioxin	13 Days	2.7 pg/m3	UJ	HTp>UCL	UJ
		OCDD	13 Days	20 pg/m3	J	HTp>UCL	U
		OCDF	13 Days	2.9 pg/m3	UJ	HTp>UCL	UJ
		Total HpCDD	13 Days	1.9 pg/m3	UJ	HTp>UCL	UJ
		Total HpCDF	13 Days	1.8 pg/m3	UJ	HTp>UCL	UJ
		Total HxCDD	13 Days	1.7 pg/m3	UJ	HTp>UCL	UJ
		Total HxCDF	13 Days	0.65 pg/m3	UJ	HTp>UCL	UJ
		Total PeCDD	13 Days	1.9 pg/m3	UJ	HTp>UCL	UJ
		Total PeCDF	13 Days	2.4 pg/m3	UJ	HTp>UCL	UJ
		Total TCDD	13 Days	2.7 pg/m3	UJ	HTp>UCL	UJ
		Total TCDF	13 Days	1.7 pg/m3	UJ	HTp>UCL	UJ
	NTCRA-SPY-U1-DF-20230907	1,2,3,4,6,7,8-Heptachlorodibenzofuran	13 Days	1.9 pg/m3	UJ	HTp>UCL	UJ
		1,2,3,4,6,7,8-Heptachlorodibenzo-p-di	13 Days	3.2 pg/m3	UJ	HTp>UCL	UJ
		1,2,3,4,7,8,9-Heptachlorodibenzofuran	13 Days	2.3 pg/m3	UJ	HTp>UCL	UJ
		1,2,3,4,7,8-Hexachlorodibenzofuran	13 Days	1.1 pg/m3	UJ	HTp>UCL	UJ
		1,2,3,4,7,8-Hexachlorodibenzo-p-dioxi	13 Days	1.4 pg/m3	UJ	HTp>UCL	UJ
		1,2,3,6,7,8-Hexachlorodibenzofuran	13 Days	0.93 pg/m3	UJ	HTp>UCL	UJ
		1,2,3,6,7,8-Hexachlorodibenzo-p-dioxi	13 Days	1.2 pg/m3	UJ	HTp>UCL	UJ
		1,2,3,7,8,9-Hexachlorodibenzofuran	13 Days	1.2 pg/m3	UJ	HTp>UCL	UJ
		1,2,3,7,8,9-Hexachlorodibenzo-p-dioxi	13 Days	1.2 pg/m3	UJ	HTp>UCL	UJ
		1,2,3,7,8-Pentachlorodibenzofuran	13 Days	3.1 pg/m3	UJ	HTp>UCL	UJ

TABLE A1. Holding Times - Qualified Data

Method (Matrix)	Sample Identification	Analyte	Holding Time	Result	Holding Time Qualifier	Criteria	Final Flag*
EPA TO9 (AIR)							
	NTCRA-SPY-U1-DF-20230907	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	13 Days	4.1 pg/m3	UJ	HTp>UCL	UJ
		2,3,4,6,7,8-Hexachlorodibenzofuran	13 Days	1 pg/m3	UJ	HTp>UCL	UJ
		2,3,4,7,8-Pentachlorodibenzofuran	13 Days	3.1 pg/m3	UJ	HTp>UCL	UJ
		2,3,7,8-Tetrachlorodibenzofuran	13 Days	1.8 pg/m3	UJ	HTp>UCL	UJ
		2,3,7,8-Tetrachlorodibenzo-p-dioxin	13 Days	3.9 pg/m3	UJ	HTp>UCL	UJ
		OCDD	13 Days	25 pg/m3	J	HTp>UCL	U
		OCDF	13 Days	2.8 pg/m3	UJ	HTp>UCL	UJ
		Total HpCDD	13 Days	3.2 pg/m3	UJ	HTp>UCL	UJ
		Total HpCDF	13 Days	1.9 pg/m3	UJ	HTp>UCL	UJ
		Total HxCDD	13 Days	1.2 pg/m3	UJ	HTp>UCL	UJ
		Total HxCDF	13 Days	0.93 pg/m3	UJ	HTp>UCL	UJ
		Total PeCDD	13 Days	4.1 pg/m3	UJ	HTp>UCL	UJ
		Total PeCDF	13 Days	3.1 pg/m3	UJ	HTp>UCL	UJ
		Total TCDD	13 Days	3.9 pg/m3	UJ	HTp>UCL	UJ
		Total TCDF	13 Days	1.8 pg/m3	UJ	HTp>UCL	UJ

pg/m3 = picograms per meter cubed

* The most severe flag for each analyte becomes the final validation flag.

Qualifier Description:

J = The analyte was positively identified, the quantitation is an estimate.

UJ = The analyte was analyzed for, but not detected. The associated numerical value is at or below the reporting limit (RL). The quantitation is an estimate.

Criteria:

HTp>UCL = Holding time exceeded (sample preparation)

TABLE A2. Blank Contamination - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	Blank Contamination Qualifier*	Criteria	Comments
D7614-12 (AIR)						
Chromium, hexavalent		NTCRA-AOC10-2-D1-Cr6-20230417	0.000189 ug/m3	U	TB<RL	blank target = 0.00054ug/sample
		NTCRA-AOC10-2-D1-Cr6-20230419	0.0000384 ug/m3	U	TB<RL	blank target = 0.00054ug/sample
		NTCRA-AOC10-2-D1-Cr6-230417Dup	0.0000431 ug/m3	U	TB<RL	blank target = 0.00054ug/sample
		NTCRA-AOC10-2-D2-Cr6-20230419	0.0000572 ug/m3	U	TB<RL	blank target = 0.00054ug/sample
		NTCRA-SPY-D1-Cr6-20230203	0.000053 ug/m3	U	TB<RL	blank target = 0.00029ug/sample
		NTCRA-SPY-D1-Cr6-20230203-Dup	0.0000781 ug/m3	U	TB<RL	blank target = 0.00029ug/sample
		NTCRA-SPY-D1-Cr6-202302419	0.0000654 ug/m3	U	TB<RL	blank target = 0.00054ug/sample
		NTCRA-SPY-D1-Cr6-20230413	0.0000322 ug/m3	U	TB<RL	blank target = 0.00054ug/sample
		NTCRA-SPY-D2-Cr6-20230203	0.000154 ug/m3	U	TB<RL	blank target = 0.00029ug/sample
		NTCRA-SPY-D2-Cr6-202302419	0.0000769 ug/m3	U	TB<RL	blank target = 0.00054ug/sample
		NTCRA-SPY-D2-Cr6-20230413	0.000104 ug/m3	U	TB<RL	blank target = 0.00054ug/sample
		NTCRA-SPY-D2-Cr6-20230413-Dup	0.000104 ug/m3	U	TB<RL	blank target = 0.00054ug/sample
		NTCRA-SPY-U1-Cr6-202302419	0.0000472 ug/m3	U	TB<RL	blank target = 0.00054ug/sample
	EPA TO9 (AIR)					
1,2,3,4,6,7,8-Heptachlorodibenzofuran		NTCRA-SPY-D1-D/F-20231011	5.3 pg/m3	U	LB<RL	blank target = 6pg/m3
		NTCRA-SPY-D1-D/F-20231011	5.3 pg/m3	U	TB<RL	blank target = 6.9pg/m3
		NTCRA-SPY-D1-DF-20220929	22 pg/m3	U	LB<RL	blank target = 1.8pg/m3
		NTCRA-SPY-D1-DF-20220929	22 pg/m3	U	TB<RL	blank target = 2.7pg/m3
		NTCRA-SPY-D1-DF-20230816	3.8 pg/m3	U	TB<RL	blank target = 15pg/m3
		NTCRA-SPY-D2-D/F-20231011	3 pg/m3	U	LB<RL	blank target = 6pg/m3
		NTCRA-SPY-D2-D/F-20231011	3 pg/m3	U	TB<RL	blank target = 6.9pg/m3
		NTCRA-SPY-D2-DF-20220929	23 pg/m3	U	LB<RL	blank target = 1.8pg/m3
		NTCRA-SPY-D2-DF-20220929	23 pg/m3	U	TB<RL	blank target = 2.7pg/m3
		NTCRA-SPY-D2-DF-20230816	2 pg/m3	U	TB<RL	blank target = 15pg/m3
		NTCRA-SPY-D2-DF-20230816-Dup	2.4 pg/m3	U	TB<RL	blank target = 15pg/m3
		NTCRA-SPY-U1-D/F-20231011	6.1 pg/m3	U	LB<RL	blank target = 6pg/m3
		NTCRA-SPY-U1-D/F-20231011	6.1 pg/m3	U	TB<RL	blank target = 6.9pg/m3
		NTCRA-SPY-U1-D/F-20231011-Dup	5.8 pg/m3	U	LB<RL	blank target = 6pg/m3
		NTCRA-SPY-U1-D/F-20231011-Dup	5.8 pg/m3	U	TB<RL	blank target = 6.9pg/m3
		NTCRA-SPY-U1-DF-20220929	22 pg/m3	U	LB<RL	blank target = 1.8pg/m3
		NTCRA-SPY-U1-DF-20220929	22 pg/m3	U	TB<RL	blank target = 2.7pg/m3
		NTCRA-SWMU1-1-D1-DF-20221012	22 pg/m3	U	LB<RL	blank target = 0.43pg/m3
		NTCRA-SWMU1-1-D1-DF-20221012	22 pg/m3	U	TB<RL	blank target = 0.62pg/m3

TABLE A2. Blank Contamination - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	Blank Contamination Qualifier*	Criteria	Comments
EPA TO9 (AIR)	1,2,3,4,6,7,8-Heptachlorodibenzofuran	NTCRA-SWMU1-1-D1-DF-20230921	34 pg/m3	U	LB<RL	blank target = 0.7pg/m3
		NTCRA-SWMU1-1-D2-DF-20221012	22 pg/m3	U	LB<RL	blank target = 0.43pg/m3
		NTCRA-SWMU1-1-D2-DF-20221012	22 pg/m3	U	TB<RL	blank target = 0.62pg/m3
		NTCRA-SWMU1-1-Tent-DF-20230921	33 pg/m3	U	LB<RL	blank target = 0.7pg/m3
		NTCRA-SWMU1-1-U1-DF-20230921	35 pg/m3	U	LB<RL	blank target = 0.7pg/m3
	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	NTCRA-SPY-D1-D/F-20231011	19 pg/m3	U	LB<RL	blank target = 19pg/m3
		NTCRA-SPY-D1-D/F-20231011	19 pg/m3	U	TB<RL	blank target = 12pg/m3
		NTCRA-SPY-D1-DF-20220727	0.73 pg/m3	U	TB<RL	blank target = 0.87pg/m3
		NTCRA-SPY-D1-DF-20220929	22 pg/m3	U	LB<RL	blank target = 2.2pg/m3
		NTCRA-SPY-D1-DF-20220929	22 pg/m3	U	TB<RL	blank target = 2pg/m3
		NTCRA-SPY-D1-DF-20230626	2.8 pg/m3	U	TB<RL	blank target = 0.85pg/m3
		NTCRA-SPY-D1-DF-20230626-Dup	2.8 pg/m3	U	TB<RL	blank target = 0.85pg/m3
		NTCRA-SPY-D1-DF-20230907	2.4 pg/m3	U	TB<RL	blank target = 2.1pg/m3
		NTCRA-SPY-D2-D/F-20231011	14 pg/m3	U	LB<RL	blank target = 19pg/m3
		NTCRA-SPY-D2-D/F-20231011	14 pg/m3	U	TB<RL	blank target = 12pg/m3
		NTCRA-SPY-D2-D/F-20231101	1.3 pg/m3	U	LB<RL	blank target = 2.3pg/m3
		NTCRA-SPY-D2-DF-20220727	0.91 pg/m3	U	TB<RL	blank target = 0.87pg/m3
		NTCRA-SPY-D2-DF-20220727-Dup	0.8 pg/m3	U	TB<RL	blank target = 0.87pg/m3
		NTCRA-SPY-D2-DF-20220929	23 pg/m3	U	LB<RL	blank target = 2.2pg/m3
		NTCRA-SPY-D2-DF-20220929	23 pg/m3	U	TB<RL	blank target = 2pg/m3
		NTCRA-SPY-D2-DF-20230626	2.2 pg/m3	U	TB<RL	blank target = 0.85pg/m3
		NTCRA-SPY-D2-DF-20230816	1.4 pg/m3	U	TB<RL	blank target = 1.4pg/m3
		NTCRA-SPY-D2-DF-20230816-Dup	1.6 pg/m3	U	TB<RL	blank target = 1.4pg/m3
		NTCRA-SPY-D2-DF-20230907	2.2 pg/m3	U	TB<RL	blank target = 2.1pg/m3
		NTCRA-SPY-U1-D/F-20231011	29 pg/m3	U	LB<RL	blank target = 19pg/m3
		NTCRA-SPY-U1-D/F-20231011	29 pg/m3	U	TB<RL	blank target = 12pg/m3
		NTCRA-SPY-U1-D/F-20231011-Dup	19 pg/m3	U	LB<RL	blank target = 19pg/m3
		NTCRA-SPY-U1-D/F-20231011-Dup	19 pg/m3	U	TB<RL	blank target = 12pg/m3
		NTCRA-SPY-U1-DF-20220727	0.68 pg/m3	U	TB<RL	blank target = 0.87pg/m3
		NTCRA-SPY-U1-DF-20220929	22 pg/m3	U	LB<RL	blank target = 2.2pg/m3
		NTCRA-SPY-U1-DF-20220929	22 pg/m3	U	TB<RL	blank target = 2pg/m3
		NTCRA-SPY-U1-DF-20230626	0.57 pg/m3	U	TB<RL	blank target = 0.85pg/m3
	NTCRA-SWMU1-1-D1-D/F-20231025	32 pg/m3	U	LB<RL	blank target = 3.3pg/m3	

TABLE A2. Blank Contamination - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	Blank Contamination Qualifier*	Criteria	Comments	
EPA TO9 (AIR)	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	NTCRA-SWMU1-1-D1-D/F-20231025	32 pg/m3	U	TB<RL	blank target = 6.3pg/m3	
		NTCRA-SWMU1-1-D1-DF-20221	21 pg/m3	U	LB<RL	blank target = 0.69pg/m3	
		NTCRA-SWMU1-1-D1-DF-20221012	22 pg/m3	U	LB<RL	blank target = 0.34pg/m3	
		NTCRA-SWMU1-1-D1-DF-20221012	22 pg/m3	U	TB<RL	blank target = 0.38pg/m3	
		NTCRA-SWMU1-1-D1-DF-20230621	0.94 pg/m3	U	TB<RL	blank target = 0.85pg/m3	
		NTCRA-SWMU1-1-D1-DF-20230921	34 pg/m3	U	LB<RL	blank target = 1.9pg/m3	
		NTCRA-SWMU1-1-D1-DF-20230921	34 pg/m3	U	TB<RL	blank target = 1.3pg/m3	
		NTCRA-SWMU1-1-D2-DF-20221	22 pg/m3	U	LB<RL	blank target = 0.69pg/m3	
		NTCRA-SWMU1-1-D2-DF-20221012	22 pg/m3	U	LB<RL	blank target = 0.34pg/m3	
		NTCRA-SWMU1-1-D2-DF-20221012	22 pg/m3	U	TB<RL	blank target = 0.38pg/m3	
		NTCRA-SWMU1-1-D2-DF-20230621	1 pg/m3	U	TB<RL	blank target = 0.85pg/m3	
		NTCRA-SWMU1-1-D2-DF-221012-DU	22 pg/m3	U	LB<RL	blank target = 0.34pg/m3	
		NTCRA-SWMU1-1-D2-DF-221012-DU	22 pg/m3	U	TB<RL	blank target = 0.38pg/m3	
		NTCRA-SWMU1-1-Tent-D/F20231025	31 pg/m3	U	LB<RL	blank target = 3.3pg/m3	
		NTCRA-SWMU1-1-Tent-D/F20231025	31 pg/m3	U	TB<RL	blank target = 6.3pg/m3	
		NTCRA-SWMU1-1-Tent-DF-20230921	33 pg/m3	U	LB<RL	blank target = 1.9pg/m3	
		NTCRA-SWMU1-1-Tent-DF-20230921	33 pg/m3	U	TB<RL	blank target = 1.3pg/m3	
		NTCRA-SWMU1-1-U1-D/F-20231025	29 pg/m3	U	LB<RL	blank target = 3.3pg/m3	
		NTCRA-SWMU1-1-U1-D/F-20231025	29 pg/m3	U	TB<RL	blank target = 6.3pg/m3	
		NTCRA-SWMU1-1-U1-DF-20230621	1.1 pg/m3	U	TB<RL	blank target = 0.85pg/m3	
		NTCRA-SWMU1-1-U1-DF-20230921	35 pg/m3	U	LB<RL	blank target = 1.9pg/m3	
		NTCRA-SWMU1-1-U1-DF-20230921	35 pg/m3	U	TB<RL	blank target = 1.3pg/m3	
		1,2,3,4,7,8,9-Heptachlorodibenzofuran	NTCRA-SPY-D1-DF-20220929	0.61 pg/m3	U	TB<RL	blank target = 1.1pg/m3
			NTCRA-SPY-D2-DF-20220929	0.64 pg/m3	U	TB<RL	blank target = 1.1pg/m3
	NTCRA-SPY-U1-DF-20220929		0.79 pg/m3	U	TB<RL	blank target = 1.1pg/m3	
	1,2,3,4,7,8-Hexachlorodibenzofuran	NTCRA-SPY-D1-DF-20220929	22 pg/m3	U	LB<RL	blank target = 1.2pg/m3	
		NTCRA-SPY-D1-DF-20220929	22 pg/m3	U	TB<RL	blank target = 1.3pg/m3	
		NTCRA-SPY-D2-DF-20220929	23 pg/m3	U	LB<RL	blank target = 1.2pg/m3	
		NTCRA-SPY-D2-DF-20220929	23 pg/m3	U	TB<RL	blank target = 1.3pg/m3	
		NTCRA-SPY-U1-DF-20220929	22 pg/m3	U	LB<RL	blank target = 1.2pg/m3	
		NTCRA-SPY-U1-DF-20220929	22 pg/m3	U	TB<RL	blank target = 1.3pg/m3	
		1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	NTCRA-AOC10-2-D1-DF-20221115	0.69 pg/m3	U	TB<RL	blank target = 1pg/m3
	NTCRA-AOC11-D1-DF-20220726		1.8 pg/m3	U	TB<RL	blank target = 2pg/m3	

TABLE A2. Blank Contamination - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	Blank Contamination Qualifier*	Criteria	Comments	
EPA TO9 (AIR)							
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin		NTCRA-AOC11-D2-DF-20220726	1.4 pg/m3	U	TB<RL	blank target = 2pg/m3	
		NTCRA-AOC11-U1-DF-20220726	1 pg/m3	U	TB<RL	blank target = 2pg/m3	
		NTCRA-SPY-D1-D/F-20231011	1.1 pg/m3	U	TB<RL	blank target = 0.82pg/m3	
		NTCRA-SPY-D1-DF-20220727	0.73 pg/m3	U	TB<RL	blank target = 2pg/m3	
		NTCRA-SPY-D1-DF-20220929	22 pg/m3	U	LB<RL	blank target = 1pg/m3	
		NTCRA-SPY-D1-DF-20220929	22 pg/m3	U	TB<RL	blank target = 1.1pg/m3	
		NTCRA-SPY-D1-DF-20230626	1 pg/m3	U	TB<RL	blank target = 0.85pg/m3	
		NTCRA-SPY-D2-DF-20220727	0.79 pg/m3	U	TB<RL	blank target = 2pg/m3	
		NTCRA-SPY-D2-DF-20220727-Dup	0.74 pg/m3	U	TB<RL	blank target = 2pg/m3	
		NTCRA-SPY-D2-DF-20220929	23 pg/m3	U	LB<RL	blank target = 1pg/m3	
		NTCRA-SPY-D2-DF-20220929	23 pg/m3	U	TB<RL	blank target = 1.1pg/m3	
		NTCRA-SPY-D2-DF-20230626	0.93 pg/m3	U	TB<RL	blank target = 0.85pg/m3	
		NTCRA-SPY-U1-D/F-20231011-Dup	1.7 pg/m3	U	TB<RL	blank target = 0.82pg/m3	
		NTCRA-SPY-U1-DF-20220727	0.75 pg/m3	U	TB<RL	blank target = 2pg/m3	
		NTCRA-SPY-U1-DF-20220929	22 pg/m3	U	LB<RL	blank target = 1pg/m3	
		NTCRA-SPY-U1-DF-20220929	22 pg/m3	U	TB<RL	blank target = 1.1pg/m3	
		NTCRA-SPY-U1-DF-20230626	0.65 pg/m3	U	TB<RL	blank target = 0.85pg/m3	
		NTCRA-SWMU1-1-D1-DF-20221	21 pg/m3	U	LB<RL	blank target = 0.6pg/m3	
		NTCRA-SWMU1-1-D1-DF-20221	21 pg/m3	U	TB<RL	blank target = 0.43pg/m3	
		NTCRA-SWMU1-1-D1-DF-20221012	22 pg/m3	U	LB<RL	blank target = 0.7pg/m3	
		NTCRA-SWMU1-1-D1-DF-20221012	22 pg/m3	U	TB<RL	blank target = 0.62pg/m3	
		NTCRA-SWMU1-1-D1-DF-20230921	34 pg/m3	U	LB<RL	blank target = 0.82pg/m3	
		NTCRA-SWMU1-1-D1-DF-20230921	34 pg/m3	U	TB<RL	blank target = 1.3pg/m3	
		NTCRA-SWMU1-1-D2-DF-20221	22 pg/m3	U	LB<RL	blank target = 0.6pg/m3	
		NTCRA-SWMU1-1-D2-DF-20221	22 pg/m3	U	TB<RL	blank target = 0.43pg/m3	
		NTCRA-SWMU1-1-U1-DF-20221012	23 pg/m3	U	LB<RL	blank target = 0.7pg/m3	
		NTCRA-SWMU1-1-U1-DF-20221012	23 pg/m3	U	TB<RL	blank target = 0.62pg/m3	
		NTCRA-SWMU1-1-U1-DF-20230621	0.87 pg/m3	U	TB<RL	blank target = 0.85pg/m3	
	1,2,3,6,7,8-Hexachlorodibenzofuran		NTCRA-SPY-D1-D/F-20231011	1.2 pg/m3	U	LB<RL	blank target = 1.3pg/m3
			NTCRA-SPY-U1-D/F-20231011-Dup	0.81 pg/m3	U	LB<RL	blank target = 1.3pg/m3
	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin		NTCRA-AOC11-D1-DF-20220726	2.1 pg/m3	U	TB<RL	blank target = 0.95pg/m3
			NTCRA-AOC11-D2-DF-20220726	1.1 pg/m3	U	TB<RL	blank target = 0.95pg/m3
			NTCRA-AOC11-U1-DF-20220726	0.53 pg/m3	U	TB<RL	blank target = 0.95pg/m3

TABLE A2. Blank Contamination - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	Blank Contamination Qualifier*	Criteria	Comments	
EPA TO9 (AIR)							
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin		NTCRA-SPY-D1-D/F-20231011	1.9 pg/m3	U	LB<RL	blank target = 1.2pg/m3	
		NTCRA-SPY-D1-D/F-20231011	1.9 pg/m3	U	TB<RL	blank target = 1.5pg/m3	
		NTCRA-SPY-D1-DF-20220929	22 pg/m3	U	LB<RL	blank target = 0.49pg/m3	
		NTCRA-SPY-D1-DF-20220929	22 pg/m3	U	TB<RL	blank target = 0.49pg/m3	
		NTCRA-SPY-D2-D/F-20231011	1.7 pg/m3	U	LB<RL	blank target = 1.2pg/m3	
		NTCRA-SPY-D2-D/F-20231011	1.7 pg/m3	U	TB<RL	blank target = 1.5pg/m3	
		NTCRA-SPY-U1-D/F-20231011	1.9 pg/m3	U	LB<RL	blank target = 1.2pg/m3	
		NTCRA-SPY-U1-D/F-20231011	1.9 pg/m3	U	TB<RL	blank target = 1.5pg/m3	
		NTCRA-SPY-U1-D/F-20231011-Dup	1.1 pg/m3	U	LB<RL	blank target = 1.2pg/m3	
		NTCRA-SPY-U1-D/F-20231011-Dup	1.1 pg/m3	U	TB<RL	blank target = 1.5pg/m3	
		NTCRA-SPY-U1-DF-20220929	22 pg/m3	U	LB<RL	blank target = 0.49pg/m3	
		NTCRA-SPY-U1-DF-20220929	22 pg/m3	U	TB<RL	blank target = 0.49pg/m3	
	1,2,3,7,8,9-Hexachlorodibenzofuran		NTCRA-SPY-D1-DF-20220929	22 pg/m3	U	LB<RL	blank target = 0.86pg/m3
			NTCRA-SPY-D1-DF-20220929	22 pg/m3	U	TB<RL	blank target = 0.62pg/m3
		NTCRA-SPY-U1-DF-20220929	22 pg/m3	U	LB<RL	blank target = 0.86pg/m3	
		NTCRA-SPY-U1-DF-20220929	22 pg/m3	U	TB<RL	blank target = 0.62pg/m3	
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin		NTCRA-SPY-D1-DF-20220929	22 pg/m3	U	LB<RL	blank target = 0.42pg/m3	
		NTCRA-SPY-D1-DF-20220929	22 pg/m3	U	TB<RL	blank target = 0.99pg/m3	
		NTCRA-SPY-D2-DF-20220929	23 pg/m3	U	LB<RL	blank target = 0.42pg/m3	
		NTCRA-SPY-D2-DF-20220929	23 pg/m3	U	TB<RL	blank target = 0.99pg/m3	
		NTCRA-SPY-U1-DF-20220929	22 pg/m3	U	LB<RL	blank target = 0.42pg/m3	
		NTCRA-SPY-U1-DF-20220929	22 pg/m3	U	TB<RL	blank target = 0.99pg/m3	
1,2,3,7,8-Pentachlorodibenzo-p-dioxin		NTCRA-SPY-U1-DF-20220929	0.27 pg/m3	U	TB<RL	blank target = 0.44pg/m3	
		NTCRA-SWMU1-1-D1-DF-20221012	22 pg/m3	U	LB<RL	blank target = 0.41pg/m3	
		NTCRA-SWMU1-1-D1-DF-20221012	22 pg/m3	U	TB<RL	blank target = 0.31pg/m3	
2,3,4,6,7,8-Hexachlorodibenzofuran		NTCRA-SPY-D1-DF-20220929	22 pg/m3	U	LB<RL	blank target = 0.71pg/m3	
		NTCRA-SPY-D1-DF-20220929	22 pg/m3	U	TB<RL	blank target = 0.82pg/m3	
		NTCRA-SPY-U1-DF-20220929	22 pg/m3	U	LB<RL	blank target = 0.71pg/m3	
		NTCRA-SPY-U1-DF-20220929	22 pg/m3	U	TB<RL	blank target = 0.82pg/m3	
2,3,7,8-Tetrachlorodibenzo-p-dioxin		NTCRA-SPY-D1-DF-20220929	4.3 pg/m3	U	LB<RL	blank target = 0.51pg/m3	
		NTCRA-SPY-D1-DF-20220929	4.3 pg/m3	U	TB<RL	blank target = 0.76pg/m3	
		NTCRA-SPY-D2-DF-20220929	4.6 pg/m3	U	LB<RL	blank target = 0.51pg/m3	
		NTCRA-SPY-D2-DF-20220929	4.6 pg/m3	U	TB<RL	blank target = 0.76pg/m3	

TABLE A2. Blank Contamination - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	Blank Contamination Qualifier*	Criteria	Comments
EPA TO9 (AIR)						
	2,3,7,8-Tetrachlorodibenzo-p-dioxin	NTCRA-SPY-U1-DF-20220929	4.3 pg/m3	U	LB<RL	blank target = 0.51pg/m3
		NTCRA-SPY-U1-DF-20220929	4.3 pg/m3	U	TB<RL	blank target = 0.76pg/m3
	OCDD	NTCRA-AOC10-2-D1-DF-20221115	45 pg/m3	U	LB<RL	blank target = 2.2pg/m3
		NTCRA-AOC10-2-D2-DF-20221115	45 pg/m3	U	LB<RL	blank target = 2.2pg/m3
		NTCRA-AOC10-2-U1-DF-20221115	44 pg/m3	U	LB<RL	blank target = 2.2pg/m3
		NTCRA-SPY-D1-D/F-20231011	41 pg/m3	U	LB<RL	blank target = 33pg/m3
		NTCRA-SPY-D1-D/F-20231011	41 pg/m3	U	TB<RL	blank target = 44pg/m3
		NTCRA-SPY-D1-DF-20220727	10 pg/m3	U	LB<RL	blank target = 7.2pg/m3
		NTCRA-SPY-D1-DF-20220727	10 pg/m3	U	TB<RL	blank target = 4.3pg/m3
		NTCRA-SPY-D1-DF-20220929	43 pg/m3	U	LB<RL	blank target = 3.6pg/m3
		NTCRA-SPY-D1-DF-20220929	43 pg/m3	U	TB<RL	blank target = 7.8pg/m3
		NTCRA-SPY-D1-DF-20230626	44 pg/m3	U	LB<RL	blank target = 7.4pg/m3
		NTCRA-SPY-D1-DF-20230626	44 pg/m3	U	TB<RL	blank target = 7.4pg/m3
		NTCRA-SPY-D1-DF-20230626-Dup	44 pg/m3	U	LB<RL	blank target = 7.4pg/m3
		NTCRA-SPY-D1-DF-20230626-Dup	44 pg/m3	U	TB<RL	blank target = 7.4pg/m3
		NTCRA-SPY-D1-DF-20230816	59 pg/m3	U	LB<RL	blank target = 4.9pg/m3
		NTCRA-SPY-D1-DF-20230816	59 pg/m3	U	TB<RL	blank target = 9.7pg/m3
		NTCRA-SPY-D1-DF-20230907	24 pg/m3	U	LB<RL	blank target = 15pg/m3
		NTCRA-SPY-D1-DF-20230907	24 pg/m3	U	TB<RL	blank target = 26pg/m3
		NTCRA-SPY-D2-D/F-20231011	35 pg/m3	U	LB<RL	blank target = 33pg/m3
		NTCRA-SPY-D2-D/F-20231011	35 pg/m3	U	TB<RL	blank target = 44pg/m3
		NTCRA-SPY-D2-D/F-20231101	5.8 pg/m3	U	LB<RL	blank target = 6pg/m3
		NTCRA-SPY-D2-DF-20220727	7.3 pg/m3	U	LB<RL	blank target = 7.2pg/m3
		NTCRA-SPY-D2-DF-20220727	7.3 pg/m3	U	TB<RL	blank target = 4.3pg/m3
		NTCRA-SPY-D2-DF-20220727-Dup	6.5 pg/m3	U	LB<RL	blank target = 7.2pg/m3
		NTCRA-SPY-D2-DF-20220727-Dup	6.5 pg/m3	U	TB<RL	blank target = 4.3pg/m3
		NTCRA-SPY-D2-DF-20220929	46 pg/m3	U	LB<RL	blank target = 3.6pg/m3
		NTCRA-SPY-D2-DF-20220929	46 pg/m3	U	TB<RL	blank target = 7.8pg/m3
		NTCRA-SPY-D2-DF-20230626	45 pg/m3	U	LB<RL	blank target = 7.4pg/m3
		NTCRA-SPY-D2-DF-20230626	45 pg/m3	U	TB<RL	blank target = 7.4pg/m3
		NTCRA-SPY-D2-DF-20230816	60 pg/m3	U	LB<RL	blank target = 4.9pg/m3
		NTCRA-SPY-D2-DF-20230816	60 pg/m3	U	TB<RL	blank target = 9.7pg/m3
		NTCRA-SPY-D2-DF-20230816-Dup	59 pg/m3	U	LB<RL	blank target = 4.9pg/m3

TABLE A2. Blank Contamination - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	Blank Contamination Qualifier*	Criteria	Comments
EPA TO9 (AIR)	OCDD	NTCRA-SPY-D2-DF-20230816-Dup	59 pg/m3	U	TB<RL	blank target = 9.7pg/m3
		NTCRA-SPY-D2-DF-20230907	20 pg/m3	U	LB<RL	blank target = 15pg/m3
		NTCRA-SPY-D2-DF-20230907	20 pg/m3	U	TB<RL	blank target = 26pg/m3
		NTCRA-SPY-U1-D/F-20231011	76 pg/m3	U	LB<RL	blank target = 33pg/m3
		NTCRA-SPY-U1-D/F-20231011	76 pg/m3	U	TB<RL	blank target = 44pg/m3
		NTCRA-SPY-U1-D/F-20231011-Dup	33 pg/m3	U	LB<RL	blank target = 33pg/m3
		NTCRA-SPY-U1-D/F-20231011-Dup	33 pg/m3	U	TB<RL	blank target = 44pg/m3
		NTCRA-SPY-U1-D/F-20231101	7.7 pg/m3	U	LB<RL	blank target = 6pg/m3
		NTCRA-SPY-U1-DF-20220727	4.8 pg/m3	U	LB<RL	blank target = 7.2pg/m3
		NTCRA-SPY-U1-DF-20220727	4.8 pg/m3	U	TB<RL	blank target = 4.3pg/m3
		NTCRA-SPY-U1-DF-20220929	43 pg/m3	U	LB<RL	blank target = 3.6pg/m3
		NTCRA-SPY-U1-DF-20220929	43 pg/m3	U	TB<RL	blank target = 7.8pg/m3
		NTCRA-SPY-U1-DF-20230626	44 pg/m3	U	LB<RL	blank target = 7.4pg/m3
		NTCRA-SPY-U1-DF-20230626	44 pg/m3	U	TB<RL	blank target = 7.4pg/m3
		NTCRA-SPY-U1-DF-20230816	61 pg/m3	U	LB<RL	blank target = 4.9pg/m3
		NTCRA-SPY-U1-DF-20230816	61 pg/m3	U	TB<RL	blank target = 9.7pg/m3
		NTCRA-SPY-U1-DF-20230907	25 pg/m3	U	LB<RL	blank target = 15pg/m3
		NTCRA-SPY-U1-DF-20230907	25 pg/m3	U	TB<RL	blank target = 26pg/m3
		NTCRA-SWMU1-1-D1-D/F-20231025	64 pg/m3	U	LB<RL	blank target = 6.5pg/m3
		NTCRA-SWMU1-1-D1-D/F-20231025	64 pg/m3	U	TB<RL	blank target = 14pg/m3
		NTCRA-SWMU1-1-D1-DF-20221	43 pg/m3	U	LB<RL	blank target = 2.1pg/m3
		NTCRA-SWMU1-1-D1-DF-20221	43 pg/m3	U	TB<RL	blank target = 1.8pg/m3
		NTCRA-SWMU1-1-D1-DF-20221012	44 pg/m3	U	LB<RL	blank target = 2.1pg/m3
		NTCRA-SWMU1-1-D1-DF-20221012	44 pg/m3	U	TB<RL	blank target = 1.7pg/m3
		NTCRA-SWMU1-1-D1-DF-20230621	50 pg/m3	U	LB<RL	blank target = 7.4pg/m3
		NTCRA-SWMU1-1-D1-DF-20230621	50 pg/m3	U	TB<RL	blank target = 7.4pg/m3
		NTCRA-SWMU1-1-D1-DF-20230921	69 pg/m3	U	LB<RL	blank target = 15pg/m3
		NTCRA-SWMU1-1-D1-DF-20230921	69 pg/m3	U	TB<RL	blank target = 16pg/m3
		NTCRA-SWMU1-1-D2-DF-20221	44 pg/m3	U	LB<RL	blank target = 2.1pg/m3
		NTCRA-SWMU1-1-D2-DF-20221	44 pg/m3	U	TB<RL	blank target = 1.8pg/m3
		NTCRA-SWMU1-1-D2-DF-20221012	45 pg/m3	U	LB<RL	blank target = 2.1pg/m3
		NTCRA-SWMU1-1-D2-DF-20221012	45 pg/m3	U	TB<RL	blank target = 1.7pg/m3
		NTCRA-SWMU1-1-D2-DF-20230621	51 pg/m3	U	LB<RL	blank target = 7.4pg/m3

TABLE A2. Blank Contamination - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	Blank Contamination Qualifier*	Criteria	Comments	
EPA TO9 (AIR)							
OCDD		NTCRA-SWMU1-1-D2-DF-20230621	51 pg/m3	U	TB<RL	blank target = 7.4pg/m3	
		NTCRA-SWMU1-1-D2-DF-221012-DU	45 pg/m3	U	LB<RL	blank target = 2.1pg/m3	
		NTCRA-SWMU1-1-D2-DF-221012-DU	45 pg/m3	U	TB<RL	blank target = 1.7pg/m3	
		NTCRA-SWMU1-1-Tent-D/F20231025	61 pg/m3	U	LB<RL	blank target = 6.5pg/m3	
		NTCRA-SWMU1-1-Tent-D/F20231025	61 pg/m3	U	TB<RL	blank target = 14pg/m3	
		NTCRA-SWMU1-1-Tent-DF-20230921	66 pg/m3	U	LB<RL	blank target = 15pg/m3	
		NTCRA-SWMU1-1-Tent-DF-20230921	66 pg/m3	U	TB<RL	blank target = 16pg/m3	
		NTCRA-SWMU1-1-U1-D/F-20231025	58 pg/m3	U	LB<RL	blank target = 6.5pg/m3	
		NTCRA-SWMU1-1-U1-D/F-20231025	58 pg/m3	U	TB<RL	blank target = 14pg/m3	
		NTCRA-SWMU1-1-U1-DF-20221	44 pg/m3	U	LB<RL	blank target = 2.1pg/m3	
		NTCRA-SWMU1-1-U1-DF-20221	44 pg/m3	U	TB<RL	blank target = 1.8pg/m3	
		NTCRA-SWMU1-1-U1-DF-20221012	45 pg/m3	U	LB<RL	blank target = 2.1pg/m3	
		NTCRA-SWMU1-1-U1-DF-20221012	45 pg/m3	U	TB<RL	blank target = 1.7pg/m3	
		NTCRA-SWMU1-1-U1-DF-20230621	55 pg/m3	U	LB<RL	blank target = 7.4pg/m3	
		NTCRA-SWMU1-1-U1-DF-20230621	55 pg/m3	U	TB<RL	blank target = 7.4pg/m3	
		NTCRA-SWMU1-1-U1-DF-20230921	70 pg/m3	U	LB<RL	blank target = 15pg/m3	
		NTCRA-SWMU1-1-U1-DF-20230921	70 pg/m3	U	TB<RL	blank target = 16pg/m3	
	OCDF		NTCRA-SPY-D1-D/F-20231011	15 pg/m3	U	LB<RL	blank target = 10pg/m3
			NTCRA-SPY-D1-D/F-20231011	15 pg/m3	U	TB<RL	blank target = 14pg/m3
			NTCRA-SPY-D1-DF-20220929	43 pg/m3	U	LB<RL	blank target = 1pg/m3
			NTCRA-SPY-D1-DF-20220929	43 pg/m3	U	TB<RL	blank target = 2.3pg/m3
			NTCRA-SPY-D2-D/F-20231011	9.6 pg/m3	U	LB<RL	blank target = 10pg/m3
			NTCRA-SPY-D2-D/F-20231011	9.6 pg/m3	U	TB<RL	blank target = 14pg/m3
			NTCRA-SPY-D2-DF-20220727-Dup	0.55 pg/m3	U	TB<RL	blank target = 0.75pg/m3
		NTCRA-SPY-D2-DF-20220929	46 pg/m3	U	LB<RL	blank target = 1pg/m3	
		NTCRA-SPY-D2-DF-20220929	46 pg/m3	U	TB<RL	blank target = 2.3pg/m3	
		NTCRA-SPY-U1-D/F-20231011	19 pg/m3	U	LB<RL	blank target = 10pg/m3	
		NTCRA-SPY-U1-D/F-20231011	19 pg/m3	U	TB<RL	blank target = 14pg/m3	
		NTCRA-SPY-U1-D/F-20231011-Dup	14 pg/m3	U	LB<RL	blank target = 10pg/m3	
		NTCRA-SPY-U1-D/F-20231011-Dup	14 pg/m3	U	TB<RL	blank target = 14pg/m3	
		NTCRA-SPY-U1-DF-20220929	43 pg/m3	U	LB<RL	blank target = 1pg/m3	
		NTCRA-SPY-U1-DF-20220929	43 pg/m3	U	TB<RL	blank target = 2.3pg/m3	
		NTCRA-SWMU1-1-D1-D/F-20231025	6.1 pg/m3	U	TB<RL	blank target = 2.3pg/m3	

TABLE A2. Blank Contamination - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	Blank Contamination Qualifier*	Criteria	Comments
EPA TO9 (AIR)						
	OCDF	NTCRA-SWMU1-1-D1-DF-20230921	69 pg/m3	U	LB<RL	blank target = 1.1pg/m3
		NTCRA-SWMU1-1-Tent-D/F20231025	2.4 pg/m3	U	TB<RL	blank target = 2.3pg/m3
		NTCRA-SWMU1-1-Tent-DF-20230921	66 pg/m3	U	LB<RL	blank target = 1.1pg/m3
		NTCRA-SWMU1-1-U1-D/F-20231025	1.8 pg/m3	U	TB<RL	blank target = 2.3pg/m3
		NTCRA-SWMU1-1-U1-DF-20230921	70 pg/m3	U	LB<RL	blank target = 1.1pg/m3
	Total HpCDD	NTCRA-SPY-D1-DF-20220929	22 pg/m3	U	LB<RL	blank target = 4.5pg/m3
		NTCRA-SPY-D1-DF-20220929	22 pg/m3	U	TB<RL	blank target = 2.3pg/m3
		NTCRA-SPY-D2-DF-20220929	23 pg/m3	U	LB<RL	blank target = 4.5pg/m3
		NTCRA-SPY-D2-DF-20220929	23 pg/m3	U	TB<RL	blank target = 2.3pg/m3
		NTCRA-SPY-U1-DF-20220929	22 pg/m3	U	LB<RL	blank target = 4.5pg/m3
		NTCRA-SPY-U1-DF-20220929	22 pg/m3	U	TB<RL	blank target = 2.3pg/m3
	Total HpCDF	NTCRA-SPY-D1-DF-20220929	1.4 pg/m3	U	TB<RL	blank target = 2.7pg/m3
	Total HxCDD	NTCRA-SWMU1-1-U1-DF-20221	0.39 pg/m3	U	LB<RL	blank target = 0.6pg/m3
	Total HxCDF	NTCRA-SWMU1-1-D1-DF-20221012	0.49 pg/m3	U	TB<RL	blank target = 0.58pg/m3
		NTCRA-SWMU1-1-D2-DF-20221012	0.55 pg/m3	U	TB<RL	blank target = 0.58pg/m3
		NTCRA-SWMU1-1-D2-DF-221012-DU	1.5 pg/m3	U	TB<RL	blank target = 0.58pg/m3
		NTCRA-SWMU1-1-U1-DF-20221012	0.53 pg/m3	U	TB<RL	blank target = 0.58pg/m3
	Total PeCDD	NTCRA-SPY-D1-DF-20220929	0.16 pg/m3	U	TB<RL	blank target = 0.44pg/m3
		NTCRA-SPY-D2-DF-20220929	0.31 pg/m3	U	TB<RL	blank target = 0.44pg/m3
		NTCRA-SPY-U1-DF-20220929	0.2 pg/m3	U	TB<RL	blank target = 0.44pg/m3
	Total PeCDF	NTCRA-SPY-D1-DF-20220929	0.28 pg/m3	U	TB<RL	blank target = 0.59pg/m3
		NTCRA-SPY-U1-DF-20220929	0.29 pg/m3	U	TB<RL	blank target = 0.59pg/m3
		NTCRA-SWMU1-1-D1-DF-20221012	0.43 pg/m3	U	TB<RL	blank target = 1pg/m3
		NTCRA-SWMU1-1-D2-DF-20221012	0.44 pg/m3	U	TB<RL	blank target = 1pg/m3
		NTCRA-SWMU1-1-D2-DF-221012-DU	0.6 pg/m3	U	TB<RL	blank target = 1pg/m3
		NTCRA-SWMU1-1-U1-DF-20221012	0.39 pg/m3	U	TB<RL	blank target = 1pg/m3

TABLE A2. Blank Contamination - Qualified Data

pg/m³ = picograms per meter cubed

ug/m³ = micrograms per meter cubed

Blank target = concentration of field or laboratory blank.

* The most severe flag for each analyte becomes the final validation flag.

Qualifier Description:

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the reporting limit (RL).

Criteria:

LB < RL = Laboratory blank contamination less than the RL

TB < RL = Trip blank concentration less than RL

TABLE A3. Laboratory Control Sample - Qualified Data

Method (Matrix) Analyte	Sample Identification / QAQC Type	Result	LCS Qualifier*	LCS Recovery	Criteria
D7614-12 (AIR)					
Chromium; Hexavalent	NTCRA-AOC10-2-D1-Cr6-20220821 / N	0.000815 ug/m3	J	%R = 127.2 LCL=80 UCL=120	LCS>UCL
	NTCRA-AOC10-2-D1-Cr6-20220821 / N	0.000815 ug/m3	J	RPD = 25.33 Limit =20	LCSRPD
	NTCRA-AOC10-2-D2-Cr6-20220821 / N	0.000387 ug/m3	J	%R = 127.2 LCL=80 UCL=120	LCS>UCL
	NTCRA-AOC10-2-D2-Cr6-20220821 / N	0.000387 ug/m3	J	RPD = 25.33 Limit =20	LCSRPD
	NTCRA-AOC10-2-U1-Cr6-20220821 / N	0.0000441 ug/m3	J	%R = 127.2 LCL=80 UCL=120	LCS>UCL
	NTCRA-AOC10-2-U1-Cr6-20220821 / N	0.0000441 ug/m3	J	RPD = 25.33 Limit =20	LCSRPD
	NTCRA-SPY-D1-Cr6-20220823 / N	0.0000394 ug/m3	J	%R = 127.2 LCL=80 UCL=120	LCS>UCL
	NTCRA-SPY-D1-Cr6-20220823 / N	0.0000394 ug/m3	J	RPD = 25.33 Limit =20	LCSRPD
	NTCRA-SPY-D1-Cr6-20220823-Dup / FD	0.0000442 ug/m3	J	%R = 127.2 LCL=80 UCL=120	LCS>UCL
	NTCRA-SPY-D1-Cr6-20220823-Dup / FD	0.0000442 ug/m3	J	RPD = 25.33 Limit =20	LCSRPD
	NTCRA-SPY-D2-Cr6-20220823 / N	0.0000249 ug/m3	J	%R = 127.2 LCL=80 UCL=120	LCS>UCL
	NTCRA-SPY-D2-Cr6-20220823 / N	0.0000249 ug/m3	J	RPD = 25.33 Limit =20	LCSRPD
EPA TO9 (Air)					
1,2,3,4,6,7,8-HpCDF	NTCRA-AOC11-D1-DF-20220726 / N	11 pg/m3	J	%R = 163 LCL=70 UCL=130	LCS>UCL
	NTCRA-AOC11-D1-DF-20220726 / N	11 pg/m3	J	RPD = 37.04 Limit =20	LCSRPD
	NTCRA-AOC11-D2-DF-20220726 / N	8 pg/m3	J	%R = 163 LCL=70 UCL=130	LCS>UCL
	NTCRA-AOC11-D2-DF-20220726 / N	8 pg/m3	J	RPD = 37.04 Limit =20	LCSRPD
	NTCRA-AOC11-U1-DF-20220726 / N	3.3 pg/m3	J	%R = 163 LCL=70 UCL=130	LCS>UCL
	NTCRA-AOC11-U1-DF-20220726 / N	3.3 pg/m3	J	RPD = 37.04 Limit =20	LCSRPD
	NTCRA-SPY-D1-DF-20220727 / N	0.71 pg/m3	J	%R = 163 LCL=70 UCL=130	LCS>UCL
	NTCRA-SPY-D1-DF-20220727 / N	0.71 pg/m3	J	RPD = 37.04 Limit =20	LCSRPD
	NTCRA-SPY-U1-DF-20220727 / N	0.87 pg/m3	J	%R = 163 LCL=70 UCL=130	LCS>UCL
NTCRA-SPY-U1-DF-20220727 / N	0.87 pg/m3	J	RPD = 37.04 Limit =20	LCSRPD	
1,2,3,4,7,8-HxCDD	NTCRA-AOC10-2-D1-DF-20221115 / N	0.69 pg/m3	J	%R = 140 LCL=70 UCL=130	LCS>UCL
1,2,3,7,8,9-HxCDF	NTCRA-AOC11-D1-DF-20220726 / N	1 pg/m3	UJ	%R = 67 LCL=70 UCL=130	LCS<LCL
	NTCRA-AOC11-D2-DF-20220726 / N	0.63 pg/m3	UJ	%R = 67 LCL=70 UCL=130	LCS<LCL
	NTCRA-AOC11-U1-DF-20220726 / N	0.29 pg/m3	UJ	%R = 67 LCL=70 UCL=130	LCS<LCL
	NTCRA-SPY-D1-DF-20220727 / N	0.61 pg/m3	UJ	%R = 67 LCL=70 UCL=130	LCS<LCL
	NTCRA-SPY-D2-DF-20220727 / N	0.23 pg/m3	UJ	%R = 67 LCL=70 UCL=130	LCS<LCL
	NTCRA-SPY-D2-DF-20220727-Dup / FD	0.16 pg/m3	UJ	%R = 67 LCL=70 UCL=130	LCS<LCL
NTCRA-SPY-U1-DF-20220727 / N	0.59 pg/m3	UJ	%R = 67 LCL=70 UCL=130	LCS<LCL	
OCDF	NTCRA-AOC11-D1-DF-20220726 / N	52 pg/m3	J	%R = 57 LCL=70 UCL=130	LCS<LCL
	NTCRA-AOC11-D1-DF-20220726 / N	52 pg/m3	J	RPD = 58.06 Limit =20	LCSRPD
	NTCRA-AOC11-D2-DF-20220726 / N	35 pg/m3	J	%R = 57 LCL=70 UCL=130	LCS<LCL

TABLE A3. Laboratory Control Sample - Qualified Data

Method (Matrix) Analyte	Sample Identification / QAQC Type	Result	LCS Qualifier*	LCS Recovery	Criteria
EPA TO9 (Air)					
OCDF	NTCRA-AOC11-D2-DF-20220726 / N	35 pg/m3	J	RPD = 58.06 Limit =20	LCSRPD
	NTCRA-AOC11-U1-DF-20220726 / N	15 pg/m3	J	%R = 57 LCL=70 UCL=130	LCS<LCL
	NTCRA-AOC11-U1-DF-20220726 / N	15 pg/m3	J	RPD = 58.06 Limit =20	LCSRPD
	NTCRA-SPY-D1-DF-20220727 / N	1.6 pg/m3	UJ	%R = 57 LCL=70 UCL=130	LCS<LCL
	NTCRA-SPY-D2-DF-20220727 / N	0.59 pg/m3	UJ	%R = 57 LCL=70 UCL=130	LCS<LCL
	NTCRA-SPY-D2-DF-20220727-Dup / FD	0.55 pg/m3	J	RPD = 58.06 Limit =20	LCSRPD
	NTCRA-SPY-U1-DF-20220727 / N	1.3 pg/m3	UJ	%R = 57 LCL=70 UCL=130	LCS<LCL

%R = percent recovery

pg/m3 = picograms per meter cubed

ug/m3 = micrograms per meter cubed

QAQC Type

N = Normal Environmental Sample

FD = Field Duplicate

* The most severe flag for each analyte becomes the final validation flag.

Qualifier Description:

J = The analyte was positively identified, the quantitation is an estimate.

UJ = The analyte was analyzed for, but not detected. The associated numerical value is at or below the reporting limit (RL). The quantitation is an estimate.

Criteria:

LCS<LCL = LCS recovery less than lower control limit

LCS>UCL = LCS recovery greater than upper control limit

LCSRPD = LCSD RPD criteria exceeded

TABLE A4. Matrix Related Exceedances - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	MS/MSD Qualifier*	MS Recovery	Criteria
EPA TO9 (Air)						
1,2,3,4,6,7,8-Heptachlorodibenzofuran		NTCRA-AOC11-D1-DF-202	11 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-AOC11-U1-DF-202	3.3 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SPY-D1-DF-202207	0.71 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SPY-D1-DF-202308	3.8 pg/m3	U	Ion ratio criteria not met; flag as ND	EMPC
		NTCRA-SPY-D2-D/F-20231	3 pg/m3	U	Ion ratio criteria exceeded; flag as ND	EMPC
		NTCRA-SPY-D2-DF-202209	23 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SPY-D2-DF-202306	1.3 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SPY-U1-DF-202207	0.87 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SPY-U1-DF-202209	22 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SWMU1-1-D1-DF-2	22 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SWMU1-1-D2-DF-2	22 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SWMU1-1-U1-DF-2	35 pg/m3	U	Ion ratio criteria exceeded; flag as ND	EMPC
	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin		NTCRA-AOC10-2-U1-DF-20	2.8 pg/m3	U	Incorrect isotope ratios; flag as ND
		NTCRA-SPY-D1-DF-202207	0.73 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SPY-D1-DF-202309	2.4 pg/m3	U	Ion ratio criteria not met; flag as ND	EMPC
		NTCRA-SPY-D2-D/F-20231	1.3 pg/m3	U	Ion ratio criteria exceeded. Flag as ND	EMPC
		NTCRA-SPY-D2-DF-202207	0.91 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SPY-D2-DF-202207	0.8 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SPY-D2-DF-202306	2.2 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SPY-D2-DF-202308	1.4 pg/m3	U	Ion ratio criteria not met; flag as ND	EMPC
		NTCRA-SPY-D2-DF-202309	2.2 pg/m3	U	Ion ratio criteria not met; flag as ND	EMPC
		NTCRA-SPY-U1-DF-202207	0.68 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SWMU1-1-D1-D/F-2	32 pg/m3	U	Ion ratio criteria not met; flag as ND	EMPC
		NTCRA-SWMU1-1-D1-DF-2	21 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SWMU1-1-D1-DF-2	22 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
	NTCRA-SWMU1-1-D2-DF-2	22 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference	
1,2,3,4,7,8,9-Heptachlorodibenzofuran		NTCRA-SPY-D1-DF-202209	0.61 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SPY-D2-DF-202209	0.64 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SPY-U1-DF-202209	0.79 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
1,2,3,4,7,8-Hexachlorodibenzofuran		NTCRA-SPY-D1-DF-202209	22 pg/m3	U	PCDE interference; flag as ND	Interference
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin		NTCRA-AOC10-2-D1-DF-20	0.69 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-AOC11-D2-DF-202	1.4 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-AOC11-U1-DF-202	1 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SPY-D1-D/F-20231	1.1 pg/m3	U	Ion ratio criteria exceeded; flag as ND	EMPC

TABLE A4. Matrix Related Exceedances - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	MS/MSD Qualifier*	MS Recovery	Criteria
EPA TO9 (Air)						
	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	NTCRA-SPY-D1-DF-202207	0.73 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SPY-D1-DF-202306	1 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SPY-D2-DF-202207	0.79 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SPY-D2-DF-202306	0.93 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SPY-U1-DF-202207	0.75 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SWMU1-1-D1-DF-2	22 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
	1,2,3,6,7,8-Hexachlorodibenzofuran	NTCRA-SPY-D1-DF-202309	1.2 pg/m3	U	Ion ratio criteria not met; flag as ND	EMPC
	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	NTCRA-AOC11-D2-DF-202	1.1 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-AOC11-U1-DF-202	0.53 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SPY-D1-DF-202209	22 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SPY-U1-D/F-20231	1.9 pg/m3	U	Ion ratio criteria exceeded; flag as ND	EMPC
		NTCRA-SWMU1-1-D1-D/F-2	1.1 pg/m3	U	Ion ratio criteria not met; flag as ND	EMPC
	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	NTCRA-SPY-D1-DF-202209	22 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SWMU1-1-D1-DF-2	0.34 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	NTCRA-SPY-U1-DF-202209	0.27 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SWMU1-1-D1-DF-2	22 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
	2,3,4,6,7,8-Hexachlorodibenzofuran	NTCRA-SPY-D1-DF-202209	22 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SPY-U1-DF-202209	22 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
	2,3,7,8-Tetrachlorodibenzo-p-dioxin	NTCRA-SPY-D1-DF-202209	4.3 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SPY-D2-DF-202209	4.6 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SPY-U1-DF-202209	4.3 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
	OCDD	NTCRA-AOC10-2-D1-DF-20	45 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-AOC11-D1-DF-202	13 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-AOC11-D2-DF-202	23 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SPY-D1-DF-202308	59 pg/m3	U	Ion ratio criteria not met; flag as ND	EMPC
		NTCRA-SPY-D2-D/F-20231	5.8 pg/m3	U	Ion ratio criteria exceeded. Flag as ND	EMPC
		NTCRA-SPY-D2-DF-202207	6.5 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SPY-D2-DF-202308	59 pg/m3	U	Ion ratio criteria not met; flag as ND	EMPC
		NTCRA-SPY-U1-DF-202308	61 pg/m3	U	Ion ratio criteria not met; flag as ND	EMPC
		NTCRA-SWMU1-1-D1-D/F-2	64 pg/m3	U	Ion ratio criteria not met; flag as ND	EMPC
		NTCRA-SWMU1-1-D1-DF-2	43 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SWMU1-1-D1-DF-2	50 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SWMU1-1-D1-DF-2	69 pg/m3	U	Ion ratio criteria exceeded; flag as ND	EMPC

TABLE A4. Matrix Related Exceedances - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	MS/MSD Qualifier*	MS Recovery	Criteria
EPA TO9 (Air)						
OCDD		NTCRA-SWMU1-1-Tent-D/F	61 pg/m3	U	Ion ratio criteria not met; flag as ND	EMPC
		NTCRA-SWMU1-1-Tent-DF-	66 pg/m3	U	ratio criteria were exceeded; flag as N	EMPC
		NTCRA-SWMU1-1-U1-D/F-2	58 pg/m3	U	Ion ratio criteria not met; flag as ND	EMPC
		NTCRA-SWMU1-1-U1-DF-2	44 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
OCDF		NTCRA-SPY-D1-DF-202209	43 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SPY-D1-DF-202306	2.3 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SPY-D1-DF-202306	2.9 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SPY-D1-DF-202308	1.7 pg/m3	U	Ion ratio criteria not met; flag as ND	EMPC
		NTCRA-SPY-D2-D/F-20231	9.6 pg/m3	U	Ion ratio criteria exceeded; flag as ND	EMPC
		NTCRA-SPY-D2-DF-202209	46 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SPY-D2-DF-202306	4.7 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SPY-U1-DF-202306	0.9 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SWMU1-1-D1-D/F-2	6.1 pg/m3	U	Ion ratio criteria not met; flag as ND	EMPC
		NTCRA-SWMU1-1-Tent-D/F	2.4 pg/m3	U	Ion ratio criteria not met; flag as ND	EMPC
		NTCRA-SWMU1-1-Tent-DF-	66 pg/m3	U	ratio criteria were exceeded; flag as N	EMPC
		NTCRA-SWMU1-1-U1-D/F-2	1.8 pg/m3	U	Ion ratio criteria not met; flag as ND	EMPC
		NTCRA-SWMU1-1-U1-DF-2	1 pg/m3	U	Incorrect isotope ratios; flag as ND	Interference
		NTCRA-SWMU1-1-U1-DF-2	70 pg/m3	U	Ion ratio criteria exceeded; flag as ND	EMPC

%R = percent recovery

LCL = lower control limit

UCL = upper control limit

pg/m3 = picograms per meter cubed

* The most severe flag for each analyte becomes the final validation flag.

Qualifier Description:

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the reporting limit (RL).

Criteria:

EMPC = Estimated Maximum Possible Concentration

Interference = Indicates the presence of quantitative interference

TABLE A5. Surrogate Recovery - Qualified Data

Method(Matrix)	Analyte	Sample Identification	Result	Surrogate Qualifier*	Surrogate Recovery	Criteria
EPA TO9 (AIR)						
1,2,3,4,6,7,8-Heptachlorodibenzofuran		NTCRA-SPY-D1-DF-202308	3.8 pg/m3	J	%R = 31 LCL=50 UCL=120	Sur<LCL
		NTCRA-SPY-D2-DF-202308	2.4 pg/m3	J	%R = 35 LCL=50 UCL=120	Sur<LCL
		NTCRA-SWMU1-1-D1-D/F-2	1.5 pg/m3	UJ	%R=1 LCL=40 UCL=135	Sur<LCL
		NTCRA-SWMU1-1-D2-DF-2	2.5 pg/m3	UJ	%R=32 LCL=40 UCL=135	Sur<LCL
		NTCRA-SWMU1-1-Tent-D/F	2 pg/m3	UJ	%R=2 LCL=40 UCL=135	Sur<LCL
		NTCRA-SWMU1-1-U1-D/F-2	1.7 pg/m3	UJ	%R=4 LCL=40 UCL=135	Sur<LCL
		NTCRA-SWMU1-1-U1-DF-2	1.1 pg/m3	UJ	%R=30 LCL=40 UCL=135	Sur<LCL
1,2,3,4,7,8,9-Heptachlorodibenzofuran		NTCRA-AOC10-2-D1-DF-20	0.69 pg/m3	UJ	%R=24 LCL=40 UCL=135	Sur<LCL
		NTCRA-AOC10-2-D1-DF-20	0.91 pg/m3	UJ	%R=27 LCL=40 UCL=135	Sur<LCL
		NTCRA-AOC10-2-D2-DF-20	0.94 pg/m3	UJ	%R=16 LCL=40 UCL=135	Sur<LCL
		NTCRA-AOC10-2-U1-DF-20	0.66 pg/m3	UJ	%R=19 LCL=40 UCL=135	Sur<LCL
		NTCRA-AOC11-D1-DF-202	1.6 pg/m3	UJ	%R=1.4 LCL=40 UCL=135	Sur<LCL
		NTCRA-AOC11-D1-DF-202	9.7 pg/m3	UJ	%R=5 LCL=40 UCL=135	Sur<LCL
		NTCRA-AOC11-D2-DF-202	1.1 pg/m3	UJ	%R=6.8 LCL=40 UCL=135	Sur<LCL
		NTCRA-AOC11-D2-DF-202	8 pg/m3	UJ	%R=9 LCL=40 UCL=135	Sur<LCL
		NTCRA-AOC11-U1-DF-202	0.5 pg/m3	UJ	%R=2.8 LCL=40 UCL=135	Sur<LCL
		NTCRA-AOC11-U1-DF-202	5.4 pg/m3	UJ	%R=4 LCL=40 UCL=135	Sur<LCL
		NTCRA-SPY-D1-D/F-20231	1.7 pg/m3	UJ	%R=4.2 LCL=40 UCL=135	Sur<LCL
		NTCRA-SPY-D1-DF-202207	0.95 pg/m3	UJ	%R=21 LCL=40 UCL=135	Sur<LCL
		NTCRA-SPY-D1-DF-202209	0.61 pg/m3	J	%R=12 LCL=40 UCL=135	Sur<LCL
		NTCRA-SPY-D1-DF-202301	4.2 pg/m3	UJ	%R=2 LCL=40 UCL=135	Sur<LCL
		NTCRA-SPY-D1-DF-202306	1.2 pg/m3	UJ	%R=6 LCL=40 UCL=135	Sur<LCL
		NTCRA-SPY-D1-DF-202306	0.79 pg/m3	UJ	%R=4 LCL=40 UCL=135	Sur<LCL
		NTCRA-SPY-D1-DF-202308	2.1 pg/m3	UJ	%R = 2 LCL=50 UCL=120	Sur<LCL
		NTCRA-SPY-D1-DF-202309	2.9 pg/m3	UJ	%R=17 LCL=40 UCL=135	Sur<LCL
		NTCRA-SPY-D2-D/F-20231	1.9 pg/m3	UJ	%R=7 LCL=40 UCL=135	Sur<LCL
		NTCRA-SPY-D2-D/F-20231	2.3 pg/m3	UJ	%R=2.9 LCL=40 UCL=135	Sur<LCL
		NTCRA-SPY-D2-DF-202207	0.94 pg/m3	UJ	%R=3 LCL=40 UCL=135	Sur<LCL
		NTCRA-SPY-D2-DF-202207	0.76 pg/m3	UJ	%R=3.4 LCL=40 UCL=135	Sur<LCL
		NTCRA-SPY-D2-DF-202209	0.64 pg/m3	J	%R=24 LCL=40 UCL=135	Sur<LCL
		NTCRA-SPY-D2-DF-202301	1.6 pg/m3	UJ	%R=16 LCL=40 UCL=135	Sur<LCL
		NTCRA-SPY-D2-DF-202306	0.74 pg/m3	UJ	%R=16 LCL=40 UCL=135	Sur<LCL
		NTCRA-SPY-D2-DF-202308	1.9 pg/m3	UJ	%R = 12 LCL=50 UCL=120	Sur<LCL
		NTCRA-SPY-D2-DF-202308	1.6 pg/m3	UJ	%R = 29 LCL=50 UCL=120	Sur<LCL

TABLE A5. Surrogate Recovery - Qualified Data

Method(Matrix)	Analyte	Sample Identification	Result	Surrogate Qualifier*	Surrogate Recovery	Criteria
EPA TO9 (AIR)						
	1,2,3,4,7,8,9-Heptachlorodibenzofuran	NTCRA-SPY-D2-DF-202309	2.1 pg/m3	UJ	%R=25 LCL=40 UCL=135	Sur<LCL
		NTCRA-SPY-U1-D/F-20231	2.5 pg/m3	UJ	%R=2.4 LCL=40 UCL=135	Sur<LCL
		NTCRA-SPY-U1-D/F-20231	2.1 pg/m3	UJ	%R=3.1 LCL=40 UCL=135	Sur<LCL
		NTCRA-SPY-U1-D/F-20231	1.1 pg/m3	UJ	%R=3.3 LCL=40 UCL=135	Sur<LCL
		NTCRA-SPY-U1-DF-202207	0.87 pg/m3	UJ	%R=2.9 LCL=40 UCL=135	Sur<LCL
		NTCRA-SPY-U1-DF-202209	0.79 pg/m3	J	%R=7 LCL=40 UCL=135	Sur<LCL
		NTCRA-SPY-U1-DF-202301	5.6 pg/m3	UJ	%R=4 LCL=40 UCL=135	Sur<LCL
		NTCRA-SPY-U1-DF-202306	0.32 pg/m3	UJ	%R=17 LCL=40 UCL=135	Sur<LCL
		NTCRA-SPY-U1-DF-202308	1.2 pg/m3	UJ	%R = 21 LCL=50 UCL=120	Sur<LCL
		NTCRA-SPY-U1-DF-202309	2.3 pg/m3	UJ	%R=2.6 LCL=40 UCL=135	Sur<LCL
		NTCRA-SWMU1-1-D1-DF-2	0.44 pg/m3	UJ	%R=9 LCL=40 UCL=135	Sur<LCL
		NTCRA-SWMU1-1-D1-DF-2	0.72 pg/m3	UJ	%R=1 LCL=40 UCL=135	Sur<LCL
		NTCRA-SWMU1-1-D1-DF-2	1.9 pg/m3	UJ	%R=16 LCL=40 UCL=135	Sur<LCL
		NTCRA-SWMU1-1-D1-DF-2	3.9 pg/m3	UJ	%R=34 LCL=40 UCL=135	Sur<LCL
		NTCRA-SWMU1-1-D1-DF-2	2.7 pg/m3	UJ	%R=5 LCL=40 UCL=135	Sur<LCL
		NTCRA-SWMU1-1-D1-DF-2	1.6 pg/m3	UJ	%R=18 LCL=40 UCL=135	Sur<LCL
		NTCRA-SWMU1-1-D1-DF-2	0.95 pg/m3	UJ	%R=37 LCL=40 UCL=135	Sur<LCL
		NTCRA-SWMU1-1-D2-DF-2	0.5 pg/m3	UJ	%R=6 LCL=40 UCL=135	Sur<LCL
		NTCRA-SWMU1-1-D2-DF-2	0.92 pg/m3	UJ	%R=13 LCL=40 UCL=135	Sur<LCL
		NTCRA-SWMU1-1-D2-DF-2	2.3 pg/m3	UJ	%R=6 LCL=40 UCL=135	Sur<LCL
		NTCRA-SWMU1-1-D2-DF-2	3.1 pg/m3	UJ	%R=8 LCL=40 UCL=135	Sur<LCL
		NTCRA-SWMU1-1-D2-DF-2	1.2 pg/m3	UJ	%R=12 LCL=40 UCL=135	Sur<LCL
		NTCRA-SWMU1-1-D2-DF-2	3 pg/m3	UJ	%R=1 LCL=40 UCL=135	Sur<LCL
		NTCRA-SWMU1-1-Tent-DF-	0.8 pg/m3	UJ	%R=23 LCL=40 UCL=135	Sur<LCL
		NTCRA-SWMU1-1-U1-DF-2	1.2 pg/m3	UJ	%R=9 LCL=40 UCL=135	Sur<LCL
		NTCRA-SWMU1-1-U1-DF-2	1.4 pg/m3	UJ	%R=2 LCL=40 UCL=135	Sur<LCL
		NTCRA-SWMU1-1-U1-DF-2	1.9 pg/m3	UJ	%R=8 LCL=40 UCL=135	Sur<LCL
		NTCRA-SWMU1-1-U1-DF-2	1.5 pg/m3	UJ	%R=3 LCL=40 UCL=135	Sur<LCL
		NTCRA-SWMU1-1-U1-DF-2	1.3 pg/m3	UJ	%R=18 LCL=40 UCL=135	Sur<LCL
		NTCRA-SWMU1-1-U1-DF-2	0.8 pg/m3	UJ	%R=9.5 LCL=40 UCL=135	Sur<LCL
	1,2,3,4,7,8-Hexachlorodibenzofuran	NTCRA-AOC11-D1-DF-202	1.1 pg/m3	UJ	%R=23 LCL=40 UCL=135	Sur<LCL
		NTCRA-AOC11-D1-DF-202	1.8 pg/m3	UJ	%R=38 LCL=40 UCL=135	Sur<LCL
		NTCRA-AOC11-U1-DF-202	1.2 pg/m3	UJ	%R=26 LCL=40 UCL=135	Sur<LCL
		NTCRA-SPY-D1-D/F-20231	1.1 pg/m3	UJ	%R=37 LCL=50 UCL=135	Sur<LCL

TABLE A5. Surrogate Recovery - Qualified Data

Method(Matrix)	Analyte	Sample Identification	Result	Surrogate Qualifier*	Surrogate Recovery	Criteria	
EPA TO9 (AIR)							
1,2,3,4,7,8-Hexachlorodibenzofuran		NTCRA-SPY-D1-DF-202301	1.6 pg/m3	UJ	%R=20 LCL=40 UCL=135	Sur<LCL	
		NTCRA-SPY-D1-DF-202306	0.46 pg/m3	UJ	%R=39 LCL=40 UCL=135	Sur<LCL	
		NTCRA-SPY-D1-DF-202306	0.43 pg/m3	UJ	%R=23 LCL=40 UCL=135	Sur<LCL	
		NTCRA-SPY-D1-DF-202308	0.83 pg/m3	UJ	%R = 30 LCL=50 UCL=120	Sur<LCL	
		NTCRA-SPY-D2-D/F-20231	1.2 pg/m3	UJ	%R=43 LCL=50 UCL=135	Sur<LCL	
		NTCRA-SPY-D2-D/F-20231	0.58 pg/m3	UJ	%R=37 LCL=50 UCL=135	Sur<LCL	
		NTCRA-SPY-D2-DF-202207	0.2 pg/m3	UJ	%R=35 LCL=40 UCL=135	Sur<LCL	
		NTCRA-SPY-D2-DF-202207	0.15 pg/m3	UJ	%R=38 LCL=40 UCL=135	Sur<LCL	
		NTCRA-SPY-U1-D/F-20231	1.1 pg/m3	UJ	%R=20 LCL=50 UCL=135	Sur<LCL	
		NTCRA-SPY-U1-D/F-20231	0.7 pg/m3	UJ	%R=30 LCL=50 UCL=135	Sur<LCL	
		NTCRA-SPY-U1-D/F-20231	0.38 pg/m3	UJ	%R=36 LCL=50 UCL=135	Sur<LCL	
		NTCRA-SPY-U1-DF-202207	0.45 pg/m3	UJ	%R=35 LCL=40 UCL=135	Sur<LCL	
		NTCRA-SPY-U1-DF-202301	2.9 pg/m3	UJ	%R=44 LCL=40 UCL=135	Sur<LCL	
		NTCRA-SPY-U1-DF-202309	1.1 pg/m3	UJ	%R=30 LCL=50 UCL=135	Sur<LCL	
		NTCRA-SWMU1-1-D1-D/F-2	0.56 pg/m3	UJ	%R=13 LCL=40 UCL=135	Sur<LCL	
		NTCRA-SWMU1-1-D1-DF-2	0.44 pg/m3	UJ	%R=22 LCL=40 UCL=135	Sur<LCL	
		NTCRA-SWMU1-1-D1-DF-2	1.8 pg/m3	UJ	%R=2 LCL=40 UCL=135	Sur<LCL	
		NTCRA-SWMU1-1-D1-DF-2	1.3 pg/m3	UJ	%R=46 LCL=40 UCL=135	Sur<LCL	
		NTCRA-SWMU1-1-D2-DF-2	1 pg/m3	UJ	%R=46 LCL=40 UCL=135	Sur<LCL	
		NTCRA-SWMU1-1-D2-DF-2	1.3 pg/m3	UJ	%R=34 LCL=40 UCL=135	Sur<LCL	
		NTCRA-SWMU1-1-Tent-D/F	0.47 pg/m3	UJ	%R=39 LCL=40 UCL=135	Sur<LCL	
		NTCRA-SWMU1-1-U1-D/F-2	0.55 pg/m3	UJ	%R=31 LCL=40 UCL=135	Sur<LCL	
		NTCRA-SWMU1-1-U1-DF-2	0.51 pg/m3	UJ	%R=38 LCL=40 UCL=135	Sur<LCL	
		NTCRA-SWMU1-1-U1-DF-2	0.94 pg/m3	UJ	%R=36 LCL=40 UCL=135	Sur<LCL	
	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin		NTCRA-SPY-D1-DF-202301	1.3 pg/m3	UJ	%R=48 LCL=40 UCL=135	Sur<LCL
			NTCRA-SWMU1-1-D1-DF-2	22 pg/m3	J	%R=39 LCL=40 UCL=135	Sur<LCL
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin		NTCRA-SPY-D1-DF-202308	0.78 pg/m3	UJ	%R = 49 LCL=50 UCL=120	Sur<LCL	
1,2,3,7,8,9-Hexachlorodibenzofuran		NTCRA-AOC11-D2-DF-202	0.63 pg/m3	UJ	%R=37 LCL=40 UCL=135	Sur<LCL	
		NTCRA-SPY-D1-DF-202207	0.61 pg/m3	UJ	%R=39 LCL=40 UCL=135	Sur<LCL	
		NTCRA-SWMU1-1-U1-DF-2	0.44 pg/m3	UJ	%R=43 LCL=50 UCL=135	Sur<LCL	
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin		NTCRA-AOC11-D1-DF-202	1.1 pg/m3	J	%R=150 LCL=40 UCL=135	Sur>UCL	
		NTCRA-SPY-D2-DF-202309	1.7 pg/m3	UJ	%R=41 LCL=50 UCL=135	Sur<LCL	
1,2,3,7,8-Pentachlorodibenzofuran		NTCRA-SPY-U1-DF-202301	3.2 pg/m3	UJ	%R=35 LCL=40 UCL=135	Sur<LCL	

TABLE A5. Surrogate Recovery - Qualified Data

Method(Matrix)	Analyte	Sample Identification	Result	Surrogate Qualifier*	Surrogate Recovery	Criteria
EPA TO9 (AIR)						
	1,2,3,7,8-Pentachlorodibenzofuran	NTCRA-SWMU1-1-U1-DF-2	0.62 pg/m3	UJ	%R=39 LCL=40 UCL=135	Sur<LCL
	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	NTCRA-SPY-D1-DF-202308	0.93 pg/m3	UJ	%R = 46 LCL=50 UCL=120	Sur<LCL
		NTCRA-SPY-U1-DF-202301	3.1 pg/m3	UJ	%R=37 LCL=40 UCL=135	Sur<LCL
	2,3,4,7,8-Pentachlorodibenzofuran	NTCRA-AOC11-D1-DF-202	0.45 pg/m3	UJ	%R=31 LCL=40 UCL=135	Sur<LCL
		NTCRA-AOC11-D1-DF-202	0.77 pg/m3	UJ	%R=33 LCL=40 UCL=135	Sur<LCL
		NTCRA-AOC11-D2-DF-202	0.3 pg/m3	UJ	%R=33 LCL=40 UCL=135	Sur<LCL
		NTCRA-AOC11-U1-DF-202	0.3 pg/m3	UJ	%R=25 LCL=40 UCL=135	Sur<LCL
		NTCRA-SPY-D1-DF-202301	0.86 pg/m3	UJ	%R=36 LCL=40 UCL=135	Sur<LCL
		NTCRA-SPY-D1-DF-202306	0.23 pg/m3	UJ	%R=33 LCL=40 UCL=135	Sur<LCL
		NTCRA-SPY-D1-DF-202308	1.5 pg/m3	UJ	%R = 49 LCL=50 UCL=120	Sur<LCL
		NTCRA-SPY-U1-D/F-20231	1.3 pg/m3	UJ	%R=30 LCL=50 UCL=135	Sur<LCL
		NTCRA-SPY-U1-D/F-20231	1.5 pg/m3	UJ	%R=42 LCL=50 UCL=135	Sur<LCL
		NTCRA-SWMU1-1-D1-D/F-2	0.5 pg/m3	UJ	%R=22 LCL=40 UCL=135	Sur<LCL
		NTCRA-SWMU1-1-D1-DF-2	0.47 pg/m3	UJ	%R=27 LCL=40 UCL=135	Sur<LCL
		NTCRA-SWMU1-1-U1-D/F-2	0.32 pg/m3	UJ	%R=39 LCL=40 UCL=135	Sur<LCL
		2,3,7,8-Tetrachlorodibenzofuran	NTCRA-SPY-U1-DF-202301	1.4 pg/m3	UJ	%R=39 LCL=40 UCL=135
	NTCRA-SPY-U1-DF-202309		1.8 pg/m3	UJ	%R=47 LCL=50 UCL=135	Sur<LCL
	2,3,7,8-Tetrachlorodibenzo-p-dioxin	NTCRA-SPY-U1-DF-202301	2.3 pg/m3	UJ	%R=37 LCL=40 UCL=135	Sur<LCL
		NTCRA-SPY-U1-DF-202309	3.9 pg/m3	UJ	%R=30 LCL=50 UCL=135	Sur<LCL
		NTCRA-SWMU1-1-D1-DF-2	0.49 pg/m3	UJ	%R=35 LCL=40 UCL=135	Sur<LCL
	OCDD	NTCRA-SPY-D1-DF-202308	59 pg/m3	J	%R = 31 LCL=50 UCL=120	Sur<LCL
		NTCRA-SPY-D2-DF-202306	45 pg/m3	J	%R=36 LCL=40 UCL=135	Sur<LCL
		NTCRA-SPY-D2-DF-202308	60 pg/m3	J	%R = 39 LCL=50 UCL=120	Sur<LCL
		NTCRA-SPY-D2-DF-202308	59 pg/m3	J	%R = 33 LCL=50 UCL=120	Sur<LCL
		NTCRA-SPY-U1-DF-202308	61 pg/m3	J	%R = 35 LCL=50 UCL=120	Sur<LCL
		NTCRA-SPY-U1-DF-202309	25 pg/m3	J	%R=35 LCL=40 UCL=135	Sur<LCL
		NTCRA-SWMU1-1-D1-D/F-2	64 pg/m3	UJ	%R=39 LCL=40 UCL=135	Sur<LCL
		NTCRA-SWMU1-1-D2-DF-2	44 pg/m3	J	%R=34 LCL=40 UCL=135	Sur<LCL
		NTCRA-SWMU1-1-D2-DF-2	45 pg/m3	J	%R=39 LCL=40 UCL=135	Sur<LCL
		NTCRA-SWMU1-1-Tent-D/F	61 pg/m3	UJ	%R=35 LCL=40 UCL=135	Sur<LCL
		NTCRA-SWMU1-1-U1-DF-2	44 pg/m3	J	%R=26 LCL=40 UCL=135	Sur<LCL
	OCDF	NTCRA-SPY-D2-DF-202306	4.7 pg/m3	J	%R=36 LCL=40 UCL=135	Sur<LCL

TABLE A5. Surrogate Recovery - Qualified Data

Method(Matrix)	Analyte	Sample Identification	Result	Surrogate Qualifier*	Surrogate Recovery	Criteria
EPA TO9 (AIR)						
OCDF		NTCRA-SPY-U1-DF-202309	2.8 pg/m3	UJ	%R=35 LCL=40 UCL=135	Sur<LCL
		NTCRA-SWMU1-1-D2-DF-2	0.73 pg/m3	UJ	%R=34 LCL=40 UCL=135	Sur<LCL
		NTCRA-SWMU1-1-D2-DF-2	3.9 pg/m3	UJ	%R=39 LCL=40 UCL=135	Sur<LCL
		NTCRA-SWMU1-1-U1-DF-2	1.4 pg/m3	UJ	%R=26 LCL=40 UCL=135	Sur<LCL

%R = percent recovery

LCL = lower control limit

UCL = upper control limit

pg/m3 = picograms per meter cubed

* The most severe flag for each analyte becomes the final validation flag.

Qualifier Description:

J = The analyte was positively identified, the quantitation is an estimate.

UJ = The analyte was analyzed for, but not detected. The associated numerical value is at or below the reporting limit (RL). The quantitation is an estimate.

Criteria:

Sur<LCL = Surrogate recovery less than lower limit

Sur>UCL = Surrogate recovery greater than upper limit

TABLE A6. Results between the RL and MDL - Qualified Data

Method (Matrix)			Low-level Detects			
Analyte	Sample Identification	Result	Final Qualifier*	MDL	RL	Criteria
D7614-12 (AIR)						
Chromium, hexavalent	NTCRA-AOC10-1-D1-Cr6-20230823	0.0000642 ug/m3	J	0.0000476	0.000238	<RL
	NTCRA-AOC10-1-D1-Cr6-20230830	0.000112 ug/m3	J	0.0000401	0.000201	<RL
	NTCRA-AOC10-1-D2-Cr6-20230801	0.0000569 ug/m3	J	0.0000325	0.000163	<RL
	NTCRA-AOC10-1-D2-Cr6-20230823	0.0000837 ug/m3	J	0.0000465	0.000232	<RL
	NTCRA-AOC10-1-D2-Cr6-20230830	0.0000906 ug/m3	J	0.0000403	0.000201	<RL
	NTCRA-AOC10-1-U1-Cr6-20230830	0.0000483 ug/m3	J	0.0000386	0.000193	<RL
	NTCRA-AOC10-1-U1-Cr6-230830Dup	0.0000561 ug/m3	J	0.0000387	0.000193	<RL
	NTCRA-AOC10-2-D1-Cr6-20221117	0.0000795 ug/m3	J	0.00003	0.00015	<RL
	NTCRA-AOC10-2-D1-Cr6-20221207	0.0000445 ug/m3	J	0.0000287	0.000143	<RL
	NTCRA-AOC10-2-D2-Cr6-20220926	0.0000358 ug/m3	J	0.0002	0.001	<RL
	NTCRA-AOC10-2-U1-Cr6-20220821	0.0000441 ug/m3	J	0.0000238	0.000119	<RL
	NTCRA-AOC10-2-U1-Cr6-20220922	0.0000506 ug/m3	J	0.0000253	0.000127	<RL
	NTCRA-SPY-D1-Cr6-20220823	0.0000394 ug/m3	J	0.0000239	0.000119	<RL
	NTCRA-SPY-D1-Cr6-20220823-Dup	0.0000442 ug/m3	J	0.0000239	0.000119	<RL
	NTCRA-SPY-D1-Cr6-20220922	0.0000415 ug/m3	J	0.0000268	0.000134	<RL
	NTCRA-SPY-D1-Cr6-20230801	0.0000406 ug/m3	J	0.000029	0.000145	<RL
	NTCRA-SPY-D1-Cr6-20230816	0.0000516 ug/m3	J	0.0000382	0.000191	<RL
	NTCRA-SPY-D1-Cr6-20230829	0.0000381 ug/m3	J	0.0000381	0.00019	<RL
	NTCRA-SPY-D1-Cr6-20230907	0.0000762 ug/m3	J	0.0000401	0.000201	<RL
	NTCRA-SPY-D1-Cr6-20230912	0.000044 ug/m3	J	0.0000352	0.000176	<RL
	NTCRA-SPY-D1-Cr6-20231025	0.0000393 ug/m3	J	0.0000357	0.000179	<RL
	NTCRA-SPY-D2-Cr6-20220823	0.0000249 ug/m3	J	0.0000237	0.000118	<RL
	NTCRA-SPY-D2-Cr6-20230801	0.0000319 ug/m3	J	0.000029	0.000145	<RL
	NTCRA-SPY-D2-Cr6-20230816	0.0000623 ug/m3	J	0.000039	0.000195	<RL

TABLE A6. Results between the RL and MDL - Qualified Data

Method (Matrix)			Low-level Detects			
Analyte	Sample Identification	Result	Final Qualifier*	MDL	RL	Criteria
D7614-12 (AIR)						
Chromium, hexavalent	NTCRA-SPY-D2-Cr6-20230816-Dup	0.0000545 ug/m3	J	0.0000389	0.000195	<RL
	NTCRA-SPY-D2-Cr6-20230829	0.0000634 ug/m3	J	0.0000384	0.000192	<RL
	NTCRA-SPY-D2-Cr6-20230907	0.0000596 ug/m3	J	0.0000411	0.000206	<RL
	NTCRA-SPY-D2-Cr6-20230912	0.0000587 ug/m3	J	0.0000356	0.000178	<RL
	NTCRA-SPY-U1-Cr6-20230829	0.0000606 ug/m3	J	0.0000379	0.00019	<RL
	NTCRA-SPY-U1-Cr6-20230912	0.000104 ug/m3	J	0.0000377	0.000189	<RL
	NTCRA-SPY-U1-Cr6-20231004	0.0000698 ug/m3	J	0.0000332	0.000166	<RL
	NTCRA-SPY-U1-Cr6-20231018	0.0000863 ug/m3	J	0.0000345	0.000173	<RL
	NTCRA-SPY-U1-Cr6-20240115	0.0000838 ug/m3	J	0.0000508	0.000254	<RL
	NTCRA-SPY-U1-Cr6-20240115-Dup	0.0000965 ug/m3	J	0.0000508	0.000254	<RL
EPA TO9 (Air)						
1,2,3,4,6,7,8-Heptachlorodibenzofuran	NTCRA-AOC11-D1-DF-20220726	11 pg/m3	U	3.8	27	<RL
	NTCRA-AOC11-D2-DF-20220726	8 pg/m3	J	3.8	26	<RL
	NTCRA-AOC11-U1-DF-20220726	3.3 pg/m3	U	0.77	27	<RL
	NTCRA-SPY-D1-D/F-20231011	5.3 pg/m3	U	4.5	39	<RL
	NTCRA-SPY-D1-DF-20220727	0.71 pg/m3	U	0.64	24	<RL
	NTCRA-SPY-D1-DF-20220929	22 pg/m3	U	1.6	22	<RL
	NTCRA-SPY-D1-DF-20230816	3.8 pg/m3	U	3.5	30	<RL
	NTCRA-SPY-D2-D/F-20231011	3 pg/m3	U	4.5	38	<RL
	NTCRA-SPY-D2-DF-20220929	23 pg/m3	U	1.7	23	<RL
	NTCRA-SPY-D2-DF-20230626	1.3 pg/m3	U	2.6	22	<RL
	NTCRA-SPY-D2-DF-20230816	2 pg/m3	U	3.5	30	<RL
	NTCRA-SPY-D2-DF-20230816-Dup	2.4 pg/m3	U	3.5	30	<RL
	NTCRA-SPY-U1-D/F-20231011	6.1 pg/m3	U	4.5	39	<RL
	NTCRA-SPY-U1-D/F-20231011-Dup	5.8 pg/m3	U	4.5	38	<RL
	NTCRA-SPY-U1-DF-20220727	0.87 pg/m3	U	0.77	23	<RL
	NTCRA-SPY-U1-DF-20220929	22 pg/m3	U	1.6	22	<RL
	NTCRA-SW/MU1-1-D1-DF-20221012	22 pg/m3	U	1.6	22	<RL

TABLE A6. Results between the RL and MDL - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	Low-level Detects Final Qualifier*	MDL	RL	Criteria
EPA TO9 (Air)							
1,2,3,4,6,7,8-Heptachlorodibenzofuran		NTCRA-SW MU1-1-D1-DF-20230921	34 pg/m3	U	4	34	<RL
		NTCRA-SW MU1-1-D2-DF-20221012	22 pg/m3	U	1.7	22	<RL
		NTCRA-SW MU1-1-Tent-DF-20230921	33 pg/m3	U	3.9	33	<RL
		NTCRA-SW MU1-1-U1-DF-20230921	35 pg/m3	U	4.1	35	<RL
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin		NTCRA-AOC10-2-U1-DF-20221115	2.8 pg/m3	U	2	22	<RL
		NTCRA-AOC11-U1-DF-20220726	13 pg/m3	J	4.5	27	<RL
		NTCRA-SPY-D1-D/F-20231011	19 pg/m3	U	3.1	39	<RL
		NTCRA-SPY-D1-DF-20220727	0.73 pg/m3	U	4.5	24	<RL
		NTCRA-SPY-D1-DF-20220929	22 pg/m3	U	1.9	22	<RL
		NTCRA-SPY-D1-DF-20230626	2.8 pg/m3	U	1.8	22	<RL
		NTCRA-SPY-D1-DF-20230626-Dup	2.8 pg/m3	U	1.8	22	<RL
		NTCRA-SPY-D1-DF-20230907	2.4 pg/m3	U	2.5	31	<RL
		NTCRA-SPY-D2-D/F-20231011	14 pg/m3	U	3.1	38	<RL
		NTCRA-SPY-D2-D/F-20231101	1.3 pg/m3	U	3	37	<RL
		NTCRA-SPY-D2-DF-20220727	0.91 pg/m3	U	4.5	25	<RL
		NTCRA-SPY-D2-DF-20220727-Dup	0.8 pg/m3	U	4.5	24	<RL
		NTCRA-SPY-D2-DF-20220929	23 pg/m3	U	2.1	23	<RL
		NTCRA-SPY-D2-DF-20230626	2.2 pg/m3	U	1.8	22	<RL
		NTCRA-SPY-D2-DF-20230816	1.4 pg/m3	U	2.4	30	<RL
		NTCRA-SPY-D2-DF-20230816-Dup	1.6 pg/m3	U	2.4	30	<RL
		NTCRA-SPY-D2-DF-20230907	2.2 pg/m3	U	2.5	31	<RL
		NTCRA-SPY-U1-D/F-20231011	29 pg/m3	U	3.1	39	<RL
		NTCRA-SPY-U1-D/F-20231011-Dup	19 pg/m3	U	3.1	38	<RL
		NTCRA-SPY-U1-DF-20220727	0.68 pg/m3	U	4.5	23	<RL
	NTCRA-SPY-U1-DF-20220929	22 pg/m3	U	1.9	22	<RL	
	NTCRA-SPY-U1-DF-20230626	0.57 pg/m3	U	1.8	22	<RL	

TABLE A6. Results between the RL and MDL - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	Low-level Detects Final Qualifier*	MDL	RL	Criteria
EPA TO9 (Air)							
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin		NTCRA-SW MU1-1-D1-D/F-20231025	32 pg/m3	U	2.6	32	<RL
		NTCRA-SW MU1-1-D1-DF-20221	21 pg/m3	U	1.9	21	<RL
		NTCRA-SW MU1-1-D1-DF-20221012	22 pg/m3	U	2	22	<RL
		NTCRA-SW MU1-1-D1-DF-20230621	0.94 pg/m3	U	2	25	<RL
		NTCRA-SW MU1-1-D1-DF-20230921	34 pg/m3	U	2.8	34	<RL
		NTCRA-SW MU1-1-D2-DF-20221	22 pg/m3	U	2	22	<RL
		NTCRA-SW MU1-1-D2-DF-20221012	22 pg/m3	U	2	22	<RL
		NTCRA-SW MU1-1-D2-DF-20230621	1 pg/m3	U	2	25	<RL
		NTCRA-SW MU1-1-D2-DF-221012-DUP	22 pg/m3	U	2	22	<RL
		NTCRA-SW MU1-1-Tent-D/F20231025	31 pg/m3	U	2.5	31	<RL
		NTCRA-SW MU1-1-Tent-DF-20230921	33 pg/m3	U	2.7	33	<RL
		NTCRA-SW MU1-1-U1-D/F-20231025	29 pg/m3	U	2.3	29	<RL
		NTCRA-SW MU1-1-U1-DF-20230621	1.1 pg/m3	U	2.2	27	<RL
		NTCRA-SW MU1-1-U1-DF-20230921	35 pg/m3	U	2.8	35	<RL
	1,2,3,4,7,8,9-Heptachlorodibenzofuran		NTCRA-SPY-D1-DF-20220929	0.61 pg/m3	U	1.8	22
		NTCRA-SPY-D2-DF-20220929	0.64 pg/m3	U	1.9	23	<RL
		NTCRA-SPY-U1-DF-20220929	0.79 pg/m3	U	1.8	22	<RL
1,2,3,4,7,8-Hexachlorodibenzofuran		NTCRA-SPY-D1-DF-20220929	22 pg/m3	U	1.4	22	<RL
		NTCRA-SPY-D2-DF-20220929	23 pg/m3	U	1.5	23	<RL
		NTCRA-SPY-U1-DF-20220929	22 pg/m3	U	1.4	22	<RL
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin		NTCRA-AOC10-2-D1-DF-20221115	0.69 pg/m3	U	2.2	23	<RL
		NTCRA-AOC11-D1-DF-20220726	1.8 pg/m3	U	0.7	27	<RL

TABLE A6. Results between the RL and MDL - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	Low-level Detects Final Qualifier*	MDL	RL	Criteria
EPA TO9 (Air)							
	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	NTCRA-AOC11-D2-DF-20220726	1.4 pg/m3	U	0.7	26	<RL
		NTCRA-AOC11-U1-DF-20220726	1 pg/m3	U	0.7	27	<RL
		NTCRA-SPY-D1-D/F-20231011	1.1 pg/m3	U	3.3	39	<RL
		NTCRA-SPY-D1-DF-20220727	0.73 pg/m3	U	0.7	24	<RL
		NTCRA-SPY-D1-DF-20220929	22 pg/m3	U	2.1	22	<RL
		NTCRA-SPY-D1-DF-20230626	1 pg/m3	U	1.9	22	<RL
		NTCRA-SPY-D2-DF-20220727	0.79 pg/m3	U	0.7	25	<RL
		NTCRA-SPY-D2-DF-20220727-Dup	0.74 pg/m3	U	0.7	24	<RL
		NTCRA-SPY-D2-DF-20220929	23 pg/m3	U	2.3	23	<RL
		NTCRA-SPY-D2-DF-20230626	0.93 pg/m3	U	1.9	22	<RL
		NTCRA-SPY-U1-D/F-20231011-Dup	1.7 pg/m3	U	3.3	38	<RL
		NTCRA-SPY-U1-D/F-20231101	1.3 pg/m3	J	3	36	<RL
		NTCRA-SPY-U1-DF-20220727	0.75 pg/m3	U	0.7	23	<RL
		NTCRA-SPY-U1-DF-20220929	22 pg/m3	U	2.1	22	<RL
		NTCRA-SPY-U1-DF-20230626	0.65 pg/m3	U	1.9	22	<RL
		NTCRA-SWMU1-1-D1-DF-20221	21 pg/m3	U	2.1	21	<RL
		NTCRA-SWMU1-1-D1-DF-20221012	22 pg/m3	U	2.2	22	<RL
		NTCRA-SWMU1-1-D1-DF-20230921	34 pg/m3	U	2.9	34	<RL
		NTCRA-SWMU1-1-D2-DF-20221	22 pg/m3	U	2.2	22	<RL
		NTCRA-SWMU1-1-U1-DF-20221012	23 pg/m3	U	2.2	23	<RL
	NTCRA-SWMU1-1-U1-DF-20230621	0.87 pg/m3	U	2.3	27	<RL	
	1,2,3,6,7,8-Hexachlorodibenzofuran	NTCRA-AOC11-D1-DF-20220726	2.1 pg/m3	J	0.92	27	<RL
		NTCRA-SPY-D1-D/F-20231011	1.2 pg/m3	U	3.1	39	<RL
		NTCRA-SPY-D1-DF-20230907	1.2 pg/m3	U	2.5	31	<RL
		NTCRA-SPY-D2-DF-20220929	0.69 pg/m3	J	2.1	23	<RL
		NTCRA-SPY-U1-D/F-20231011-Dup	0.81 pg/m3	U	3.1	38	<RL
		NTCRA-SPY-U1-DF-20220929	0.32 pg/m3	J	1.9	22	<RL

TABLE A6. Results between the RL and MDL - Qualified Data

Method (Matrix)			Low-level Detects			
Analyte	Sample Identification	Result	Final Qualifier*	MDL	RL	Criteria
EPA TO9 (Air)						
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	NTCRA-AOC11-D1-DF-20220726	2.1 pg/m3	U	1	27	<RL
	NTCRA-AOC11-D2-DF-20220726	1.1 pg/m3	U	1	26	<RL
	NTCRA-AOC11-U1-DF-20220726	0.53 pg/m3	U	0.47	27	<RL
	NTCRA-SPY-D1-D/F-20231011	1.9 pg/m3	U	2.6	39	<RL
	NTCRA-SPY-D1-DF-20220929	22 pg/m3	U	2	22	<RL
	NTCRA-SPY-D2-D/F-20231011	1.7 pg/m3	U	2.6	38	<RL
	NTCRA-SPY-U1-D/F-20231011	1.9 pg/m3	U	2.6	39	<RL
	NTCRA-SPY-U1-D/F-20231011-Dup	1.1 pg/m3	U	2.6	38	<RL
	NTCRA-SPY-U1-DF-20220929	22 pg/m3	U	2	22	<RL
	NTCRA-SW MU1-1-D1-D/F-20231025	1.1 pg/m3	U	2.2	32	<RL
1,2,3,7,8,9-Hexachlorodibenzofuran	NTCRA-SPY-D1-DF-20220929	22 pg/m3	U	1.7	22	<RL
	NTCRA-SPY-U1-DF-20220929	22 pg/m3	U	1.7	22	<RL
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	NTCRA-AOC11-D1-DF-20220726	1.1 pg/m3	J	0.86	27	<RL
	NTCRA-SPY-D1-D/F-20231011	0.96 pg/m3	J	2.9	39	<RL
	NTCRA-SPY-D1-DF-20220929	22 pg/m3	U	1.7	22	<RL
	NTCRA-SPY-D2-DF-20220929	23 pg/m3	U	1.8	23	<RL
	NTCRA-SPY-U1-DF-20220929	22 pg/m3	U	1.7	22	<RL
	NTCRA-SW MU1-1-D1-DF-20221012	0.34 pg/m3	U	1.7	22	<RL
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	NTCRA-SPY-U1-DF-20220929	0.27 pg/m3	U	0.92	22	<RL
	NTCRA-SW MU1-1-D1-DF-20221012	22 pg/m3	U	0.93	22	<RL
2,3,4,6,7,8-Hexachlorodibenzofuran	NTCRA-SPY-D1-DF-20220929	22 pg/m3	U	1.6	22	<RL
	NTCRA-SPY-U1-DF-20220929	22 pg/m3	U	1.6	22	<RL
2,3,7,8-Tetrachlorodibenzo-p-dioxin	NTCRA-SPY-D1-DF-20220929	4.3 pg/m3	U	1.1	4.3	<RL
	NTCRA-SPY-D2-DF-20220929	4.6 pg/m3	U	1.2	4.6	<RL
	NTCRA-SPY-U1-DF-20220929	4.3 pg/m3	U	1.1	4.3	<RL

TABLE A6. Results between the RL and MDL - Qualified Data

Method (Matrix)		Low-level Detects				
Analyte	Sample Identification	Result	Final Qualifier*	MDL	RL	Criteria
EPA TO9 (Air)						
OCDD	NTCRA-AOC10-2-D1-DF-20221115	45 pg/m3	U	6.1	45	<RL
	NTCRA-AOC10-2-D2-DF-20221115	45 pg/m3	U	6.1	45	<RL
	NTCRA-AOC10-2-U1-DF-20221115	44 pg/m3	U	5.9	44	<RL
	NTCRA-AOC11-D1-DF-20220915	13 pg/m3	U	7	52	<RL
	NTCRA-AOC11-D2-DF-20220915	23 pg/m3	U	6.4	48	<RL
	NTCRA-AOC11-U1-DF-20220915	18 pg/m3	J	6.2	46	<RL
	NTCRA-SPY-D1-D/F-20231011	41 pg/m3	U	24	77	<RL
	NTCRA-SPY-D1-DF-20220727	10 pg/m3	U	3	49	<RL
	NTCRA-SPY-D1-DF-20220929	43 pg/m3	U	5.8	43	<RL
	NTCRA-SPY-D1-DF-20230626	44 pg/m3	U	13	44	<RL
	NTCRA-SPY-D1-DF-20230626-Dup	44 pg/m3	U	13	44	<RL
	NTCRA-SPY-D1-DF-20230816	59 pg/m3	U	18	59	<RL
	NTCRA-SPY-D1-DF-20230907	24 pg/m3	U	19	62	<RL
	NTCRA-SPY-D2-D/F-20231011	35 pg/m3	U	23	76	<RL
	NTCRA-SPY-D2-D/F-20231101	5.8 pg/m3	U	23	74	<RL
	NTCRA-SPY-D2-DF-20220727	7.3 pg/m3	U	3	50	<RL
	NTCRA-SPY-D2-DF-20220727-Dup	6.5 pg/m3	U	3	48	<RL
	NTCRA-SPY-D2-DF-20220929	46 pg/m3	U	6.2	46	<RL
	NTCRA-SPY-D2-DF-20230626	45 pg/m3	U	14	45	<RL
	NTCRA-SPY-D2-DF-20230816	60 pg/m3	U	18	60	<RL
	NTCRA-SPY-D2-DF-20230816-Dup	59 pg/m3	U	18	59	<RL
	NTCRA-SPY-D2-DF-20230907	20 pg/m3	U	19	63	<RL
	NTCRA-SPY-U1-D/F-20231011	76 pg/m3	U	24	77	<RL
	NTCRA-SPY-U1-D/F-20231011-Dup	33 pg/m3	U	23	77	<RL
	NTCRA-SPY-U1-D/F-20231101	7.7 pg/m3	U	22	72	<RL
	NTCRA-SPY-U1-DF-20220727	4.8 pg/m3	U	3	46	<RL
	NTCRA-SPY-U1-DF-20220929	43 pg/m3	U	5.8	43	<RL
	NTCRA-SPY-U1-DF-20230626	44 pg/m3	U	14	44	<RL
	NTCRA-SPY-U1-DF-20230816	61 pg/m3	U	19	61	<RL

TABLE A6. Results between the RL and MDL - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	Low-level Detects Final Qualifier*	MDL	RL	Criteria	
EPA TO9 (Air)								
OCDD		NTCRA-SPY-U1-DF-20230907	25 pg/m3	U	19	63	<RL	
		NTCRA-SW MU1-1-D1-D/F-20231025	64 pg/m3	UJ	20	64	<RL	
		NTCRA-SW MU1-1-D1-DF-20221	43 pg/m3	U	5.7	43	<RL	
		NTCRA-SW MU1-1-D1-DF-20221012	44 pg/m3	U	5.8	44	<RL	
		NTCRA-SW MU1-1-D1-DF-20230621	50 pg/m3	U	15	50	<RL	
		NTCRA-SW MU1-1-D1-DF-20230921	69 pg/m3	U	21	69	<RL	
		NTCRA-SW MU1-1-D2-DF-20221	44 pg/m3	U	5.9	44	<RL	
		NTCRA-SW MU1-1-D2-DF-20221012	45 pg/m3	U	6	45	<RL	
		NTCRA-SW MU1-1-D2-DF-20230621	51 pg/m3	U	15	51	<RL	
		NTCRA-SW MU1-1-D2-DF-221012-DUP	45 pg/m3	U	6	45	<RL	
		NTCRA-SW MU1-1-Tent-D/F20231025	61 pg/m3	UJ	19	61	<RL	
		NTCRA-SW MU1-1-Tent-DF-20230921	66 pg/m3	U	20	66	<RL	
		NTCRA-SW MU1-1-U1-D/F-20231025	58 pg/m3	U	18	58	<RL	
		NTCRA-SW MU1-1-U1-DF-20221	44 pg/m3	U	5.9	44	<RL	
		NTCRA-SW MU1-1-U1-DF-20221012	45 pg/m3	U	6.1	45	<RL	
		NTCRA-SW MU1-1-U1-DF-20230621	55 pg/m3	U	17	55	<RL	
		NTCRA-SW MU1-1-U1-DF-20230921	70 pg/m3	U	21	70	<RL	
	OCDF		NTCRA-AOC11-D1-DF-20220726	52 pg/m3	J	2.9	53	<RL
			NTCRA-AOC11-D2-DF-20220726	35 pg/m3	J	2.9	51	<RL
			NTCRA-AOC11-U1-DF-20220726	15 pg/m3	J	2.9	53	<RL
		NTCRA-SPY-D1-D/F-20231011	15 pg/m3	U	7.4	77	<RL	
		NTCRA-SPY-D1-DF-20220929	43 pg/m3	U	5.1	43	<RL	
		NTCRA-SPY-D1-DF-20230626	2.3 pg/m3	U	4.2	44	<RL	
		NTCRA-SPY-D1-DF-20230626-Dup	2.9 pg/m3	U	4.2	44	<RL	

TABLE A6. Results between the RL and MDL - Qualified Data

Method (Matrix)			Low-level Detects			
Analyte	Sample Identification	Result	Final Qualifier*	MDL	RL	Criteria
EPA TO9 (Air)						
OCDF	NTCRA-SPY-D1-DF-20230816	1.7 pg/m3	U	5.7	59	<RL
	NTCRA-SPY-D2-D/F-20231011	9.6 pg/m3	U	7.3	76	<RL
	NTCRA-SPY-D2-DF-20220727-Dup	0.55 pg/m3	U	0.4	48	<RL
	NTCRA-SPY-D2-DF-20220929	46 pg/m3	U	5.4	46	<RL
	NTCRA-SPY-D2-DF-20230626	4.7 pg/m3	U	4.3	45	<RL
	NTCRA-SPY-U1-D/F-20231011	19 pg/m3	U	7.4	77	<RL
	NTCRA-SPY-U1-D/F-20231011-Dup	14 pg/m3	U	7.3	77	<RL
	NTCRA-SPY-U1-DF-20220929	43 pg/m3	U	5.1	43	<RL
	NTCRA-SPY-U1-DF-20230626	0.9 pg/m3	U	4.3	44	<RL
	NTCRA-SW MU1-1-D1-D/F-20231025	6.1 pg/m3	U	6.1	64	<RL
	NTCRA-SW MU1-1-D1-DF-20230921	69 pg/m3	U	6.6	69	<RL
	NTCRA-SW MU1-1-Tent-D/F20231025	2.4 pg/m3	U	5.8	61	<RL
	NTCRA-SW MU1-1-Tent-DF-20230921	66 pg/m3	U	6.3	66	<RL
	NTCRA-SW MU1-1-U1-D/F-20231025	1.8 pg/m3	U	5.5	58	<RL
	NTCRA-SW MU1-1-U1-DF-20221012	1 pg/m3	U	5.3	45	<RL
	NTCRA-SW MU1-1-U1-DF-20230921	70 pg/m3	U	6.7	70	<RL
	Total HpCDD	NTCRA-AOC10-2-U1-DF-20221115	9.8 pg/m3	J	0	22
NTCRA-SPY-D1-D/F-20231011		33 pg/m3	J	0	39	<RL
NTCRA-SPY-D1-DF-20220727		1.5 pg/m3	J	0	24	<RL
NTCRA-SPY-D1-DF-20220929		22 pg/m3	U	0	22	<RL
NTCRA-SPY-D1-DF-20230626		22 pg/m3	J	0	22	<RL
NTCRA-SPY-D1-DF-20230626-Dup		22 pg/m3	J	0	22	<RL
NTCRA-SPY-D2-D/F-20231011		14 pg/m3	J	0	38	<RL
NTCRA-SPY-D2-DF-20220727		1.3 pg/m3	J	0	25	<RL
NTCRA-SPY-D2-DF-20220727-Dup		1.3 pg/m3	J	0	24	<RL

TABLE A6. Results between the RL and MDL - Qualified Data

Method (Matrix)			Low-level Detects				
Analyte	Sample Identification	Result	Final Qualifier*	MDL	RL	Criteria	
EPA TO9 (Air)							
Total HpCDD	NTCRA-SPY-D2-DF-20220929	23 pg/m3	U	0	23	<RL	
	NTCRA-SPY-D2-DF-20230626	22 pg/m3	J	0	22	<RL	
	NTCRA-SPY-D2-DF-20230816-Dup	1.6 pg/m3	J	0	30	<RL	
	NTCRA-SPY-U1-D/F-20231011-Dup	32 pg/m3	J	0	38	<RL	
	NTCRA-SPY-U1-DF-20220727	0.83 pg/m3	J	0	23	<RL	
	NTCRA-SPY-U1-DF-20220929	22 pg/m3	U	0	22	<RL	
	NTCRA-SPY-U1-DF-20230626	22 pg/m3	J	0	22	<RL	
	NTCRA-SPY-U1-DF-20230816	1.7 pg/m3	J	0	30	<RL	
	NTCRA-SW MU1-1-D1-D/F-20231025	32 pg/m3	J	0	32	<RL	
	NTCRA-SW MU1-1-D1-DF-20230621	25 pg/m3	J	0	25	<RL	
	NTCRA-SW MU1-1-D1-DF-20230921	2.3 pg/m3	J	0	34	<RL	
	NTCRA-SW MU1-1-D2-DF-20221	2.4 pg/m3	J	0	22	<RL	
	NTCRA-SW MU1-1-D2-DF-20221012	1.1 pg/m3	J	0	22	<RL	
	NTCRA-SW MU1-1-D2-DF-20230621	25 pg/m3	J	0	25	<RL	
	NTCRA-SW MU1-1-D2-DF-221012-DUP	1.3 pg/m3	J	0	22	<RL	
	NTCRA-SW MU1-1-Tent-D/F20231025	31 pg/m3	J	0	31	<RL	
	NTCRA-SW MU1-1-Tent-DF-20230921	5.4 pg/m3	J	0	33	<RL	
	NTCRA-SW MU1-1-U1-D/F-20231025	29 pg/m3	J	0	29	<RL	
	NTCRA-SW MU1-1-U1-DF-20221012	0.95 pg/m3	J	0	23	<RL	
	NTCRA-SW MU1-1-U1-DF-20230621	27 pg/m3	J	0	27	<RL	
	NTCRA-SW MU1-1-U1-DF-20230921	6.2 pg/m3	J	0	35	<RL	
	Total HpCDF	NTCRA-AOC11-D2-DF-20220726	9.3 pg/m3	J	0	26	<RL
		NTCRA-SPY-D1-D/F-20231011	14 pg/m3	J	0	39	<RL
NTCRA-SPY-D1-DF-20220929		1.4 pg/m3	U	0	22	<RL	

TABLE A6. Results between the RL and MDL - Qualified Data

Method (Matrix)			Low-level Detects			
Analyte	Sample Identification	Result	Final Qualifier*	MDL	RL	Criteria
EPA TO9 (Air)						
Total HpCDF	NTCRA-SPY-D2-D/F-20231011	6.8 pg/m3	J	0	38	<RL
	NTCRA-SPY-D2-DF-20230626	2.3 pg/m3	J	0	22	<RL
	NTCRA-SPY-D2-DF-20230816	2 pg/m3	J	0	30	<RL
	NTCRA-SPY-D2-DF-20230816-Dup	2.4 pg/m3	J	0	30	<RL
	NTCRA-SPY-U1-D/F-20231011	16 pg/m3	J	0	39	<RL
	NTCRA-SPY-U1-D/F-20231011-Dup	5.8 pg/m3	J	0	38	<RL
	NTCRA-SW MU1-1-D1-D/F-20231025	3 pg/m3	J	0	32	<RL
	NTCRA-SW MU1-1-D1-DF-20230921	1.1 pg/m3	J	0	34	<RL
	NTCRA-SW MU1-1-Tent-DF-20230921	1.3 pg/m3	J	0	33	<RL
Total HxCDD	NTCRA-AOC10-2-U1-DF-20221115	2.4 pg/m3	J	0	22	<RL
	NTCRA-AOC11-D1-DF-20220726	7.3 pg/m3	J	0	27	<RL
	NTCRA-AOC11-D2-DF-20220726	2.6 pg/m3	J	0	26	<RL
	NTCRA-SPY-D1-D/F-20231011	11 pg/m3	J	0	39	<RL
	NTCRA-SPY-D1-DF-20220929	22 pg/m3	J	0	22	<RL
	NTCRA-SPY-D2-D/F-20231011	1.7 pg/m3	J	0	38	<RL
	NTCRA-SPY-D2-DF-20220727-Dup	0.74 pg/m3	J	0	24	<RL
	NTCRA-SPY-D2-DF-20220929	23 pg/m3	J	0	23	<RL
	NTCRA-SPY-U1-D/F-20231011	6.8 pg/m3	J	0	39	<RL
	NTCRA-SPY-U1-D/F-20231011-Dup	7.2 pg/m3	J	0	38	<RL
	NTCRA-SPY-U1-D/F-20231101	1.3 pg/m3	J	0	36	<RL
	NTCRA-SPY-U1-DF-20220929	22 pg/m3	J	0	22	<RL
	NTCRA-SPY-U1-DF-20230626	1.1 pg/m3	J	0	22	<RL
	NTCRA-SW MU1-1-D1-D/F-20231025	2.7 pg/m3	J	0	32	<RL
	NTCRA-SW MU1-1-D1-DF-20221	21 pg/m3	J	0	21	<RL
	NTCRA-SW MU1-1-D1-DF-20230921	1.5 pg/m3	J	0	34	<RL
	NTCRA-SW MU1-1-D2-DF-20221	22 pg/m3	J	0	22	<RL

TABLE A6. Results between the RL and MDL - Qualified Data

Method (Matrix)			Low-level Detects			
Analyte	Sample Identification	Result	Final Qualifier*	MDL	RL	Criteria
EPA TO9 (Air)						
Total HxCDD	NTCRA-SW MU1-1-U1-DF-20221012	0.68 pg/m3	J	0	23	<RL
Total HxCDF	NTCRA-AOC11-D1-DF-20220726	9.7 pg/m3	J	0	27	<RL
	NTCRA-AOC11-D2-DF-20220726	6 pg/m3	J	0	26	<RL
	NTCRA-AOC11-U1-DF-20220726	1.8 pg/m3	J	0	27	<RL
	NTCRA-SPY-D1-D/F-20231011	2.6 pg/m3	J	0	39	<RL
	NTCRA-SPY-D1-DF-20220929	22 pg/m3	J	0	22	<RL
	NTCRA-SPY-D1-DF-20230907	0.73 pg/m3	J	0	31	<RL
	NTCRA-SPY-D2-DF-20220929	23 pg/m3	J	0	23	<RL
	NTCRA-SPY-U1-D/F-20231011-Dup	2.6 pg/m3	J	0	38	<RL
	NTCRA-SPY-U1-DF-20220929	22 pg/m3	J	0	22	<RL
Total PeCDF	NTCRA-AOC11-D2-DF-20220726	1.5 pg/m3	J	0	26	<RL
	NTCRA-SPY-D2-D/F-20231011	2.2 pg/m3	J	0	38	<RL
	NTCRA-SPY-D2-DF-20220929	0.92 pg/m3	J	0	23	<RL
	NTCRA-SPY-U1-D/F-20231011-Dup	2.7 pg/m3	J	0	38	<RL
	NTCRA-SPY-U1-DF-20220727	0.4 pg/m3	J	0	23	<RL
Total TCDD	NTCRA-AOC11-D1-DF-20220726	1.4 pg/m3	J	0	5.3	<RL
Total TCDF	NTCRA-AOC11-D2-DF-20220726	0.31 pg/m3	J	0	5.1	<RL
	NTCRA-SPY-U1-D/F-20231011	1.9 pg/m3	J	0	7.7	<RL
	NTCRA-SPY-U1-D/F-20231011-Dup	4.5 pg/m3	J	0	7.7	<RL

TABLE A6. Results between the RL and MDL - Qualified Data

pg/m3 = picograms per meter cubed

ug/m3 = micrograms per meter cubed

MDL = Method Detection Limit

RL = Reporting Limit

* The most severe flag for each analyte becomes the final validation flag.

Qualifier Description:

J = The analyte was positively identified, the quantitation is an estimate.

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the reporting limit (RL).

UJ = The analyte was analyzed for, but not detected. The associated numerical value is at or below the reporting limit (RL). The quantitation is an estimate.

Criteria:

<RL = Result less than the RL

TABLE A7. Site Completeness by Analyte - Qualified Data

Method	Matrix	Analyte	Units	Number of Occurrences					Contractor R-Flags	Total Contractor Completeness (%)	Overall Completeness (%)
				Analyses	Detects	Non-detects	Blank Flags	J-Flags			
D7614-12	AIR	Chromium, hexavalent	UG/M3	717	180	561		138		100	100
EPA TO9	AIR		PG/M3	3	3					100	100
		1,2,3,4,6,7,8-Heptachlorodibenzofuran	PG/M3	120	2	118		18		100	100
		1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	PG/M3	120	6	114		4		100	100
		1,2,3,4,7,8,9-Heptachlorodibenzofuran	PG/M3	120		120		108		100	100
		1,2,3,4,7,8-Hexachlorodibenzofuran	PG/M3	120		120		60		100	100
		1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	PG/M3	120	2	118		10		100	100
		1,2,3,6,7,8-Hexachlorodibenzofuran	PG/M3	120	6	114		10		100	100
		1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	PG/M3	120		120		8		100	100
		1,2,3,7,8,9-Hexachlorodibenzofuran	PG/M3	120		120		22		100	100
		1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	PG/M3	120	4	116		10		100	100
		1,2,3,7,8-Pentachlorodibenzofuran	PG/M3	120		120		10		100	100
		1,2,3,7,8-Pentachlorodibenzo-p-dioxin	PG/M3	120		120		10		100	100
		2,3,4,6,7,8-Hexachlorodibenzofuran	PG/M3	120		120		6		100	100
		2,3,4,7,8-Pentachlorodibenzofuran	PG/M3	120		120		30		100	100
		2,3,7,8-Tetrachlorodibenzofuran	PG/M3	120		120		8		100	100
		2,3,7,8-Tetrachlorodibenzo-p-dioxin	PG/M3	120		120		10		100	100
		OCDD	PG/M3	120	8	112		6		100	100
		OCDF	PG/M3	120	6	114		24		100	100
		Total HpCDD	PG/M3	60	31	29		30		100	100
		Total HpCDF	PG/M3	60	11	49		14		100	100
		Total HxCDD	PG/M3	60	18	42		21		100	100
		Total HxCDF	PG/M3	60	9	51		11		100	100
		Total PeCDD	PG/M3	60		60		3		100	100
		Total PeCDF	PG/M3	60	5	55		8		100	100
		Total TCDD	PG/M3	60	1	59		4		100	100
		Total TCDF	PG/M3	60	4	56		6		100	100
NIOSH 7400	Air	Asbestos	FIBERS/CC	9		9				100	100
OSHA ID-145	Air	Mercury	UG/M3	17		17				100	100

TABLE A7. Site Completeness by Analyte - Qualified Data

% = Percent

J-Flags = Estimated results

R-Flags = Rejected results

Fibers/cc = number of fibers per cubic centimeter

pg/m3 = picograms per meter cubed

ug/m3 = micrograms per meter cubed

**D-4. 2023-2024 Linear Underground/Overhead
Project (LUP) Annual Report**

State of California
STATE WATER RESOURCES CONTROL BOARD

2023-2024
LUP ANNUAL REPORT
FOR
STORM WATER DISCHARGES ASSOCIATED
WITH CONSTRUCTION ACTIVITIES

Reporting Period July 1, 2023 through June 30, 2024

GENERAL INFORMATION:

A. Property Owner or Legally Responsible Person Information:

Site WDID No: N/A

Owner's Name: Pacific Gas and Electric Company (PG&E)

Contact Person: Charina Ollison

Physical Address: 300 Lakeside Drive

e-mail: C2O9@pge.com

City: Oakland

State: CA Zip: 94612 Phone: 916-639-0875

B. Site Information:

Site Name: PG&E Topock Compressor Station

Contact Person: David Diaz

Physical Address: 145453 National Trails Highway

e-mail: d3d6@pge.com

Mailing Address: P.O. Box 337

City: Needles

State: CA Zip: 92363 Phone: 760-903-3013

**FORM 1
SPECIFIC INFORMATION**

C. Best Management Practices Plan (BMP Plan)

1. Has a BMP Plan been prepared by a Qualified SWPPP Developer (QSD) for the construction project?

YES **NO**

If **NO**, Explain: Because the PG&E Topock groundwater remedy and soil non-time critical removal action (NTCRA) are part of a CERCLA response action, activities conducted onsite under these projects are covered under the permit exemption codified in CERCLA Section 121(e)(1). While the permit exemption applies to the administrative or procedural elements (preparing and submitting permit applications and obtaining permits), the substantive requirements of applicable laws remain. In compliance with the Groundwater Final EIR Mitigation Measures HYDRO-1, HYDRO-2, and HYDRO-3, and incorporating the construction general permit updates, PG&E prepared a Best Management Practices (BMP) Plan for groundwater remedy construction activities (C/RAWP, Appendix M). Additionally, in compliance with the soil NTCRA Applicable or Relevant and Appropriate Requirements (ARARs), PG&E prepared a BMP Plan for NTCRA activities (Soil NTCRA Work Plan, Appendix D). The Topock groundwater remedy construction and soil NTCRA BMP Plans comply with the substantive requirements of the California and Arizona Construction General Permits, as well as the applicable federal, state, and local permit and regulatory requirements.

2. Does the BMP Plan include a Monitoring & Reporting Program (M&RP) section/element?

YES **NO**

If **NO**, Explain: _____

3. Are these documents kept onsite or in a construction vehicle and available upon request?

YES **NO**

If **NO**, Explain: _____

D. GOOD SITE MANAGEMENT "HOUSEKEEPING"

1. Were required good site management "housekeeping" measures for construction materials implemented on-site?

YES **NO**

If **NO** Explain: _____

a. Were the products used and/or expected to be used identified?

YES **NO**

If **NO**, Explain: _____

2. Were required good site management "housekeeping" measures for waste management implemented on-site?

YES **NO**

If **NO** Explain: _____

a. Is there a spill response and implementation element of the BMP Plan?

YES **NO**

If **NO**, Explain: _____

3. Were required good site management "housekeeping" measures for vehicle storage and maintenance implemented on-site?

YES NO

If NO Explain: _____

4. Were required good site management "housekeeping" measures for landscape materials implemented on-site?

YES NO

If NO Explain: **Not Applicable.** To date, landscape materials have not been used for Topock groundwater remedy construction and Soil Non-Time Critical Removal Action (NTCRA)

5. Was a list of potential pollutant sources developed?

YES NO

If NO, Explain: _____

6. Were good site management "housekeeping" measures to control air deposition of site materials and from site operations implemented on-site?

YES NO

If NO Explain: _____

E. NON-STORM WATER MANAGEMENT

1. Identify any non-storm water discharges implemented on this project during this reporting year.

Fire Hydrant Flushing Irrigation of Vegetative Erosion Control Measures Pipe Flushing & Testing
 Water to Control Dust Street Cleaning Dewatering Uncontaminated Water from Dewatering

Other: Topock groundwater remedy wastewater discharges to PG&E Topock Compressor Station Evaporation Ponds in accordance with Board Order No. R7-2018-0022. In addition, groundwater remedy wastewater is also processed through the Remedy-produced Water Conditioning system in accordance with the Final Remedy Design.

2. Were measures to control all non-storm water discharges during construction implemented?

YES NO

If NO Explain: _____

3. Were vehicles washed in such a manner as to prevent non-storm water discharges to surface waters or to MS4 drainage systems?

YES NO N/A

If NO Explain: _____

4. Were streets cleaned in such a manner as to prevent unauthorized non-storm water discharges from reaching surface waters or MS4 drainage systems?

YES NO N/A

If NO Explain: _____

F. EROSION CONTROLS

1. Were required erosion controls implemented on your site?

YES **NO**

If **NO** Explain: _____

G. SEDIMENT CONTROLS

1. Were required sediment controls implemented on your site?

YES **NO**

If **NO** Explain: _____

H. RUN-ON AND RUN-OFF CONTROLS

1. Was all site run-on and run-off effectively managed?

YES **NO** **N/A**

If **NO**, Explain: _____

2. If run-on from the surrounding area is believed to contribute to an exceedance of the NALs or NELs, was this documented and was the run-on monitored?

YES **NO** **N/A**

If **NO**, Explain: _____

I. INSPECTION, MAINTENANCE AND REPAIR

1. Were all site inspections, maintenance, and repairs performed or supervised by a Qualified SWPPP Practitioner (QSP)?

YES **NO**

If **NO**, Explain: _____

2. Were site inspections conducted as required by the CGP?

YES **NO**

If **NO**, Explain: Remedy construction activities temporarily ceased in October 2023 (note that construction sites were stabilized prior to the pause). The majority of Soil NTCRA ground disturbance activities was completed by April 30, 2024. All site inspections were conducted as required by the CGP until April 30, 2024.

3. Do your inspection forms/ checklists meet the minimum criteria listed in the **CGP**?

YES **NO**

If **NO**, Explain: _____

4. During any site inspection, were BMP inadequacies noticed?

YES (Provide description in **Form 3**) **NO**

If **NO**, Explain: _____

5. If BMP inadequacies were observed, did BMP repairs/replacement begin within 72 hours?

YES **NO**

If **NO**, Explain: _____

6. Were photographs taken of the site before, during, and after every qualifying (third) rain event

YES **NO**

If **NO**, Explain: _____

7. Were the date and rain gauge reading or nearest governmental rain gauge recorded for each qualifying rain event?

YES **NO**

If **NO**, Explain: _____

8. Prior to each predicted rain event, were pre-storm event inspections conducted in compliance with the **CGP**?

YES **NO**

If **NO**, Explain: _____

9. Were post rain event inspections conducted?

YES **NO**

If **NO**, Explain: _____

10. Are all visual inspection records retained on-site or offsite and available upon request?

YES **NO**

If **NO**, Explain: _____

J. WATER QUALITY SAMPLING AND ANALYSIS

1. How many qualifying storm events (producing precipitation of ½ inch or more at the time of discharge) occurred this past reporting year? _____ **N/A (Type 1 Project)**
Skip to next Section.

2. How many qualifying storm events (producing precipitation of ½ inch or more at the time of discharge) were sampled?
_____ **N/A**

Explain Un-sampled events: Linear Risk Type 1 projects do not require sampling unless there is a non-storm water discharge. No non-storm water discharges occurred during qualifying storm events in this reporting period.

3. For the sampled events, did you collect a minimum of three samples (representative of the flow and characteristics) each day of discharge per qualified storm event?

YES NO N/A (Type 1 Project)

If NO, Explain: _____

4. Were grab samples analyzed for pH and turbidity? (Analytical data must be entered in the RAW DATA tab in SMARTS)

YES NO N/A (Type 1 Project)

If NO, Explain: _____

5. Were any samples analyzed for Suspended Sediment Concentration (SSC)? (Analytical data must be entered in the RAW DATA tab in SMARTS)

YES NO N/A (Type 1 Project)

6. Was receiving water monitoring conducted? (Analytical data must be entered in the RAW DATA tab in SMARTS)

YES NO N/A (Type 1 Project)

7. Were Active Treatment System (ATS) effluent samples taken and submitted in SMARTS? (Applies to projects that deployed ATS)

YES NO N/A (No ATS used)

K. NON-VISIBLE POLLUTANT MONITORING

1. Were any breaches, malfunctions, leakages, or spills observed during a visual inspection?

YES NO Skip to next Section

2. Were pollutants from any breach, malfunction, failure and/or leak of any BMP cleaned up prior to the next rain event?

YES (Skip to next Section) NO

3. For each discharge event (of non-visible pollutants), were samples collected in compliance with the CGP? (Analytical data must be entered in the RAW DATA tab in SMARTS)

YES NO N/A (Type 1 Project)

If NO, Explain: _____

4. For each discharge event was a comparison sample collected (uncontaminated sample that did not come into contact with the pollutant)? (Analytical data must be entered in the RAW DATA tab in SMARTS)

YES NO N/A (Type 1 Project)

If **NO**, Explain: _____

L. NAL EXCEEDANCES

1. Were any **Numeric Action Levels (NALs)** exceeded?
 YES **NO** Skip to next Section **N/A (Type 1 Project)**

2. Were corrective actions taken to address the NAL exceedances?
 YES **NO** **N/A**

If **NO**, Explain: _____

If **YES**, please provide information about the corrective actions taken on **Form 3** if a NAL Exceedance Report was not requested by the Regional Water Board.

3. Were analytical results from any/all NAL exceedances submitted electronically to the State Water Board?
 YES **NO** **N/A**

If **NO**, Explain: _____

4. Were any NAL Exceedance Reports submitted at the request of the Regional Water Board?
 YES **NO** **N/A**

M. NEL EXCEEDANCES

1. Were any **Numeric Effluent Limitations (NELs)** exceeded?
 YES **NO** Skip to next Section **N/A (Type 1 or 2 Project)**
Skip to next Section

2. Were any **NEL** exceedances due to a storm event equal to or larger than the Compliance Storm Event described in the **CGP**? (On-site rain gauge and governmental rain gauge verification required)
 YES **NO** **N/A**

If **YES**, provide the date of the storm event and rain gauge information _____

3. Were corrective actions taken to address the NEL exceedances?
 YES **NO** **N/A**

If **NO**, Explain: _____

If **YES**, please provide information about the corrective actions taken on **Form 3**

4. Were NEL Violation Reports submitted to the State Water Board within 24 hours after the NEL exceedances were identified?
 YES **NO** **N/A**

If **NO**, Explain: _____

5. Were analytical/sampling results from any/all NEL exceedances submitted electronically to the State Water Board no later than 5 days after the conclusion of the storm event/receipt of the lab results?
 YES **NO** **N/A**

If **NO**, Explain: _____

6. Were subsequent Suspended Sediment Concentration (SSC) analyses conducted? (Analytical data must be entered in the **RAW DATA** tab in SMARTS)

YES **NO** **N/A (Storm Event > Compliance Storm Event)**

If **NO**, Explain: _____

7. If the project directly discharged to a Receiving Water, were subsequent Receiving Water samples taken and analyzed? (Analytical data must be entered in the **RAW DATA** tab in SMARTS)

YES **NO** **N/A (Storm Event > Compliance Storm Event)**

If **NO**, Explain: _____

N. TRAINING

1. Was the BMP Plan implemented by a Qualified SWPPP Practitioner (QSP) or a trained person supervised by a QSP?

YES **NO**

If **Yes**, Provide Name and Certificate Number: _____ Gino Nguyen #354

If **NO**, Explain: _____

2. Were all individuals conducting BMP installation, inspection, maintenance and repairs trained as required by the CGP?

YES **NO**

If **NO**, Explain: _____

3. Are complete training records kept in the BMP Plan and available upon request?

YES **NO**

If **NO**, Explain: _____

ANNUAL REPORT CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Printed Name: Tim Andrews

Signature:  Date: 8/28/2024

Title: Water Program Manager

DESCRIPTION OF ANALYTICAL PARAMETERS

The Construction Activities Storm Water General Permit (General Permit) requires you to analyze storm water samples for at least two parameters. These are pH and turbidity. In addition, you must monitor for any other pollutants which you believe to be present in your storm water discharge (i.e. non-visible pollutants) as a result of construction site materials.

pH (required) - is a numeric measure of the hydrogen-ion concentration. The neutral, or acceptable, range is within 6.5 to 8.5 (Numeric Action Level-NAL range). At values less than 6.5, the water is considered acidic; above 8.5 it is considered alkaline or basic. The Numeric Effluent Limitation (NEL) for pH is 6.0-9.0. An example of an acidic substance is vinegar, and an alkaline or basic substance is liquid antacid. Pure rainfall tends to have a pH of a little less than 7. There may be sources of materials or construction activities which could increase or decrease the pH of your storm water discharge.

Turbidity (required) - is the cloudiness of water quantified by the degree to which light traveling through a water column is scattered by the suspended organic and inorganic particles it contains. The turbidity test is reported in Nephelometric Turbidity Units (NTU) or Jackson Turbidity Units (JTU). The NAL for turbidity in this General Permit is 250 NTU. The NEL is 500 NTU

Suspended Sediment Concentration (SSC) - is the measure of the concentration of suspended solid material in a water sample by measuring the dry weight of all of the solid material from a known volume of a collected water sample. Results are reported in mg/L.

Benthic Macroinvertebrate Bioassessment – evaluation of animals without backbones, living in or on sediments or other substrates, of a size large enough to be seen by the unaided eye, and which can be retained by a U.S. Standard No. 30 sieve (28 openings per inch, 0.595-mm openings) to assess the biological conditions (health) of a waterbody.

See Storm Water Contacts at

http://www.waterboards.ca.gov/waterboards_map.shtml

**FORM 2 - QUARTERLY VISUAL OBSERVATIONS OF UNAUTHORIZED
NON-STORM WATER DISCHARGES (NSWDs)**

Quarter	Date/Time (HH:MM)	Source and Location of Unauthorized NSWD	Name of Unauthorized NSWD	Unauthorized NSWD Characteristics at Source	Unauthorized NSWD Characteristics at Drainage Area and Discharge Location	Revised or New BMPs Description and Implementation Date
July – September	7/25/23	Hydraulic oil dripped from a mechanic's truck during maintenance on Pipeline B Access Road.	Hydraulic oil dripped from a third-party mechanic's truck onto the dirt. The source of the oil was a bottle jack that had tipped over in the bed of his truck and leaked oil. The mechanic was onsite to conduct maintenance on an excavator located on Pipeline B Access Road. The maintenance work itself was conducted on plastic sheeting. The truck was inspected prior to starting work by the contractor and found the truck satisfactory to conduct work.	Hydraulic oil	Same as source	Impacted soil (about 2 gallons) was removed and containerized in a 5-gallon bucket with lid. The bucket was labeled (accumulation) and transported to the MW-20 Bench facility. The waste was picked up in the next standard milk run and disposed offsite. Service truck drivers should have properly secured his bottle jack that was in the bed of his truck. The corrective action is the service truck properly secured the jack to his truck.

Quarter	Date/Time (HH:MM)	Source and Location of Unauthorized NSW	Name of Unauthorized NSW	Unauthorized NSW Characteristics at Source	Unauthorized NSW Characteristics at Drainage Area and Discharge Location	Revised or New BMPs Description and Implementation Date
July – September	8/7/23	Backwash water overflowed from the IRZ-18 well vault.	Backwash water accumulated and overflowed the IRZ-18 well vault and onto the ground due to a broken check valve fitting.	Backwash water	Same as source	<p>The release area was roped off and the water inside the vault was evacuated and transferred to the MW-20 Bench frac tank.</p> <p>Soil samples were collected on 8/22/23 within the release area based on a discussion with the landowner (BOR), land manager (BLM), and regulating agencies. A summary of the soil sampling results and a comparison to background and baseline soil data were provided to the regulating agencies on 9/7/23. Based on data and the comparative analysis, PG&E recommended that no further action is necessary for the release.</p> <p>Automated valves required for automated backwashing were programmed and installed the week of August 14, 2023. If a similar failure occurs, all pumping will stop immediately upon alarm.</p>
	8/24/23	Diesel was released from the cap of a dump truck at the NTCRA AOC10-1 Ramp.	A release occurred when a super ten dump truck departed the NTCRA AOC10-1 ramp. The forward movement caused the diesel tank to slosh and release diesel from the cap and onto the dirt ramp.	Diesel	Same as source	<p>The dump truck was inspected before leaving the decon pad. No leaks were observed.</p> <p>Impacted soil was removed and placed into a bucket along with 6 sorbent pads used to clean off the tank. The bucket was brought to the TCS hazardous material building for pick up in the next milk run.</p> <p>Truck drivers were reminded to not fill the fuel tank above the target level.</p>

Quarter	Date/Time (HH:MM)	Source and Location of Unauthorized NSW	Name of Unauthorized NSW	Unauthorized NSW Characteristics at Source	Unauthorized NSW Characteristics at Drainage Area and Discharge Location	Revised or New BMPs Description and Implementation Date
October - December	None	-	-	-	-	-
January – March	None	-	-	-	-	-
April – June	None	-	-	-	-	-

FORM 3-POTENTIAL POLLUTANT SOURCE/CONSTRUCTION ACTIVITY BMP STATUS

Please enter a general summary of any BMP deficiencies identified for each quarter and the corrective actions taken.
Once completed, click the save button.

July – September	None.
October - December	<p>In fourth quarter 2023, a plastic liner placed underneath construction equipment at the staging area near MW-88, was ripped and a small amount of oil was noted on the ground. The liner was removed/replaced and contaminated dirt was removed on the same day of the inspection.</p> <p>Remedy construction paused in October 2023. Construction sites were stabilized prior to the pause.</p>
January – March	In first quarter 2024, the entrance/exit from the SPY to National Trails Highway was repaired to minimize track-out onto NTH.
April – June	None. The majority of Soil NTCRA ground disturbance activities was completed by April 30, 2024. NTCRA SWPPP BMP inspections ceased on April 30, 2024.

***D-5. Noise Monitoring Summary Soil Non-Time
Critical Removal Action (NTCRA)***



Topock Compressor Station, Needles, California

Soil Non-Time Critical Removal Action (NTCRA) Noise Monitoring Summary

Final

January 2025

Prepared for

U.S. Department of the Interior

On Behalf of

Pacific Gas and Electric Company



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Acronyms and Abbreviations

ANSI	American National Standards Institute
ASTM	ASTM International
CHQ	Construction Headquarters
dBA	A-weighted decibel(s)
DOI	U.S. Department of the Interior
DTSC	California Department of Toxic Substances Control
I-40	Interstate-40
Ldn	24-hour average day to night sound level
Leq	A-weighted equivalent continuous sound level
NTCRA	Non-Time-Critical Removal Action
NTH	National Trails Highway
PG&E	Pacific Gas and Electric Company
SEIR	Subsequent Environmental Impact Report
STC	Sound Transmission Class
SPY	Soil Processing Yard
TCS	Topock Compressor Station
U.S.	United States

1. Introduction

Implementation of the Soil Non-Time-Critical Removal Action (NTCRA) Work Plan began July 2022 and completed May 2024, with most of the ground-disturbing activities completed April 30, 2024. During this same time period, groundwater remedy construction activities (Phase 2A) also occurred from July 2022 to September 2023, near common sensitive noise receptors identified in the Final *Subsequent Environmental Impact Report* (SEIR) (DTSC 2018). To address potential temporary and cumulative construction noise impacts, two mitigation measures, NOISE-2 and NOISE-3, were prescribed in the SEIR. This report summarizes the results of noise monitoring conducted and mitigations implemented during the soil NTCRA.

1.1 Subsequent Environmental Impact Report Mitigation Measures NOISE-2 and NOISE-3

SEIR Mitigation Measure NOISE-2 consisted of requirements for determining monitoring locations and noise monitoring during remedy construction, and mitigation should exceedances be measured. The Mitigation Monitoring and Reporting Program described in the SEIR for NOISE-2 is as follows (DTSC 2018):

- *Construction equipment shall be properly maintained per manufacturer specifications and fitted with the best available noise suppression devices (e.g., mufflers, silencers, wraps). All impact tools shall be shrouded or shielded, and all intake and exhaust ports on power equipment shall be muffled or shielded.*
- *Construction equipment shall not idle for extended periods of time (more than 15 minutes) when not being utilized during construction activities. A notable exception is when a support vehicle is needed to remain running for health and safety reasons (i.e., air conditioning), consistent with health and safety procedures.*
- *Construction activities shall include, but not limited to, the use of berms, stockpiles, dumpsters, and/or bins to shield the nearest noise-sensitive receptor adjacent to construction activities to within acceptable non-transportation noise level standards. When construction activities are conducted within the distances outlined earlier (i.e., 1,850 feet and 5,830 feet from California receptors and 330 feet and 735 feet from Arizona receptors for daytime and nighttime noise, respectively) relative to noise-sensitive uses in the project area, noise measurements shall be under the supervision of a qualified acoustical consultant at the nearest noise-sensitive land use relative to the construction activities with a sound level meter that meets the standards of the American National Standards Institute (ANSI Section S14 1979, Type 1 of Type 2) to ensure that construction noise associated with the project component complies with applicable daytime and nighttime noise standards. Coordination with the Tribes and appropriate landowner(s) shall occur to allow opportunity for input in determining noise monitoring locations. If noise levels are still determined to exceed noise standards, temporary engineered acoustical barriers shall be erected as close to the construction activities as feasible, breaking the line of sight between the source and receptor where noise levels exceed applicable standards. Coordination with the Tribes shall occur in a manner consistent with the Cultural Impact Mitigation Program (CIMP; refer to Appendix H to the C/RAWP) through all Project phases, including input in determining constraints in locating temporary noise barriers to avoid or minimize physical impacts to cultural resources. All acoustical barriers shall be constructed with material having a minimum surface weight of 2 pounds per square foot or greater and a demonstrated Sound Transmission Class (STC) rating of 25 or greater as defined by the American Society for*

Testing and Materials' Test Method E90. Placement, orientation, size, and density of acoustical barriers shall be specified by, or under the direct supervision of, a qualified acoustical consultant.

The intent of SEIR Mitigation Measure NOISE-3 is to coordinate between soil and groundwater remedial activities to avoid cumulative noise levels from exceeding ambient noise levels by 5 A-weighted decibels (dBA) or greater, or exceeding applicable County standards. The Mitigation Monitoring and Reporting Program described in the SEIR for NOISE-3 is as follows (DTSC 2018)

- *Coordination between teams implementing soil remedial activities (including investigation, pilot testing, and remediation) and groundwater remediation shall occur as to avoid cumulative noise levels to exceed ambient noise levels by 5 dBA or greater, or to exceed applicable County standards at any sensitive receptor (as defined in Chapter 4.7 of this SEIR). If concurrent activities must occur near common sensitive receptors, real time noise measurements of activities shall be conducted by a qualified acoustical consultant (or contractor trained by an appropriate qualified acoustical consultant) at the nearest noise sensitive land use with a sound level meter that meets the standards of the American National Standards Institute (ANSI Section S14 1979, Type 1 of Type 2). If exceedances are not observed, monitoring can be discontinued. If exceedances are experienced, temporary barriers shall be erected as close to the construction activities as feasible, breaking the line of sight between the source and receptor where noise levels exceed applicable standards. If noise cannot be effectively mitigated, one or more of the concurrent activities shall be modified (options include but are not limited to using lower-noise-producing equipment or manual methods, relocating activities further away from each other, or avoiding/rescheduling concurrent activity, etc.) so as to result in appropriate noise levels.*

1.2 Noise Monitoring Locations

As required by NOISE-2, Pacific Gas and Electric Company (PG&E) coordinated with interested Tribes, Landowners and Managers, and DTSC to obtain inputs on monitoring locations before the start of groundwater remedy construction. A site walk was conducted on May 10, 2018, to view and discuss potential noise monitoring locations for each sensitive receptor identified in the SEIR (DTSC 2018). Site walk participants included Tribes, DTSC, and PG&E.

Before the site walk, PG&E's qualified Acoustical Consultant from Jacobs prepared maps showing proposed monitoring locations and sent out to participants. Intervening topographic features, such as mesas, or any site features in the project area that break the line of sight had the potential to shield noise from construction activities at certain locations within the Topock Cultural Area. Therefore, monitoring locations were proposed to assess impacts from construction noise on cultural resources as well as other sensitive noise receptors identified in the SEIR (DTSC 2018).

Inputs received during the May 2018 site walk were considered by PG&E and reflected in the monitoring locations shown on Figure 2-1. The updated location maps were sent to the site walk participants on June 6, 2018. The approved monitoring locations relevant to the Soil NTCRA and Phase 2A remedy construction are as follows:

- Location west of the mobile home park at Moabi Regional Park
- Location near the old restaurant site, west of National Trails Highway
- Upland location off the IM-3 access road, near the top of the hill, and an alternate location; the alternate location was only monitored during NTCRA work at AOC14

- Location on a bluff below the Topock Compressor Station (TCS), just south of Interstate-40 (I-40) and east of Topock Maze
- Location across from Topock Maze

1.3 Noise Monitoring Methodology

Consistent with the request of the Tribes during the May 10, 2018 site walk, monitoring equipment was not left at the approved monitoring locations; rather, it was mounted on a tripod or held by hand during the measurements and removed when the monitoring event was complete. The attended monitoring events documented the A-weighted equivalent continuous sound level (L_{eq}) at periodic intervals. The data trend at these intervals was evaluated in the field to assess the stability in the sound level to determine the duration of the monitoring event. When the interval data were relatively stable or clearly less than the standard, the attended monitoring event was typically 15 to 30 minutes in duration.

For NOISE-2, as the applicable standards are expressed in terms of the 24-hour average day to night sound level (L_{dn}), which is based on the L_{eq} metric, the measured L_{eq} was compared to the applicable L_{dn} standard for mobile noise sources: 60 dBA for Park Moabi, and 65 dBA at all other locations. This results in a reasonable and conservative assessment, given construction activities are not emitting noise continuously over a 24-hour period, nor are they occurring frequently during the nighttime hours from 10 p.m. to 7 a.m.

When a new construction activity was conducted or a previously monitored construction activity was conducted closer to a noise-sensitive area, monitoring was conducted at more frequent intervals to evaluate the potential need for an acoustical barrier. As the activities continued in the same location, and multiple attended measurements indicated that the applicable standard was not exceeded by the construction activity, periodic attended monitoring events were conducted to confirm continued compliance.

Noise monitoring was conducted at approved monitoring locations with ANSI S1.4 Type 1, precision sound level meters, when construction activities were within the specified distance of 1,850 feet from sensitive receptors in California. The goal of the noise monitoring was to identify whether noise levels from project construction activities exceed applicable standards of the San Bernardino and Mohave County codes. For NOISE-3, an ambient noise condition was also considered, as specified in the measure.

2. Noise Monitoring Results

This section provides the results of noise monitoring for each location. These results are compiled from Attachment E, Noise Monitoring Results, of the monthly progress reports submitted to California Department of Toxic Substances Control (DTSC) and U.S. Department of the Interior (DOI). The monthly reports are available on the Pacific Gas and Electric Company (PG&E) Topock website from this [Link](#).

2.1 Location West of the Mobile Home Park at Moabi Regional Park

The mobile home park at Moabi Regional Park was identified as a sensitive noise receptor in the SEIR, Figure 4.7-1 (DTSC 2018). Monitoring was conducted from July 2022 through April 2024 at the approved noise monitoring station (Figure 2-1) due to the proximity of this sensitive receptor to project construction activities, such as construction traffic on National Trails Highway (NTH) and activities at the following locations:

- Soil Processing Yard (SPY)
- Construction Headquarters (CHQ)

A storage yard for mobile homes, boats, and other recreational equipment) is present between the SPY, CHQ, and the mobile home park, breaking the line of sight, as well as reducing project-generated construction noise levels to inaudible or immeasurable levels. Photograph 2-1 shows the monitoring station.



Photograph 2-1. Noise Monitoring Location West of the Mobile Home Park at Moabi Regional Park, Looking Toward the Soil Processing Yard

Throughout monthly monitoring, a total of 98 individual measurements were conducted at this station. Table 2-1 compiles the monthly data, including the minimum, maximum, average, and mean for each monthly data set.

Soil Non-Time Critical Removal Action (NTCRA) Noise Monitoring Summary

Table 2-1. Attended Noise Monitoring Data from Location West of the Mobile Home Park at Moabi Regional Park

Reporting Period	Monthly Monitoring Event Count	Monthly Minimum (dBA)	Monthly Maximum (dBA)	Monthly Average (dBA)	Monthly Median (dBA)
July 2022	7	38	51	44	44
August 2022	5	37	48	41	39
September 2022	4	37	45	40	39
October 2022	4	39	50	43	42
November 2022	6	39	56	45	44
December 2022	3	39	48	42	41
January 2023	5	39	47	41	39
February 2023	5	39	44	43	43
March 2023	4	39	52	47	49
April 2023	6	38	48	42	42
May 2023	4	40	42	41	40
June 2023	2	43	62	52	52
July 2023	3	46	52	48	46
August 2023	4	40	71 ^[a]	56	57
September 2023	3	53	60	55	53
October 2023	4	44	61	55	57
November 2023	3	47	64	53	47
December 2023	5	48	71 ^[b]	59	59
January 2024	9	38	77 ^[c]	55	48
February 2024	5	54	67	59	60
March 2024	5	38	76 ^[d]	55	45
April 2024	2	54	60	57	57

^[a] The maximum sound level of 71 dBA was noted when a construction or maintenance truck from Park Moabi traveled close to the monitoring location.

^[b] The maximum sound level of 71 dBA was noted when a mobile home trailer traveling on a dirt road passed by the monitoring location on December 11, 2023.

^[c] The maximum sound level of 77 dBA was noted when a strong gust of wind occurred at the monitoring location on a windy day on January 11, 2024.

^[d] The maximum sound level of 76 dBA was noted when there was a lot of train traffic near the SPY on March 27, 2024.

2.2 Location at the Old Restaurant Site, West of National Trails Highway

This location was approved as a proxy for a nearby sensitive receptor (Maze C) for noise monitoring. Monitoring was conducted from July 2022 through September 2023 at the noise monitoring station to

evaluate noise from construction activities (Figure 2-1) due to the proximity of the sensitive receptor to traffic and construction areas, such as:

- Northern entrance to the floodplain
- UHR-1 revegetation area
- NTH

Photographs 2-2A and 2-2B show the monitoring station.



Photograph 2-2A. Noise Monitoring Location Old Restaurant Site, West of National Trails Highway, Looking Northeast Toward MW-20 Bench



Photograph 2-2B. Noise Monitoring Location Old Restaurant Site, West of National Trails Highway, Looking Southeast Toward UHR-1 Revegetation Area

Throughout monthly monitoring, a total of 62 individual measurements were taken at this station. Table 2-2 compiles the monthly data, including the minimum, maximum, average, and mean for each monthly data set.

Table 2-2. Attended Noise Monitoring Data at Location Old Restaurant Site, West of National Trails Highway

Reporting Period	Monthly Monitoring Event Count	Monthly Minimum (dBA)	Monthly Maximum (dBA)	Monthly Average (dBA)	Monthly Median (dBA)
July 2022	7	37	63	52	54
August 2022	5	47	49	48	49
September 2022	5	41	50	47	47
October 2022	6	46	53	49	49
November 2022	6	38	53	47	48
December 2022	3	48	52	51	52
January 2023	5	46	50	48	49
February 2023	6	45	64	51	47
March 2023	4	42	54	49	50
April 2023	3	43	54	47	45
May 2023	3	49	50	49	49
June 2023	5	47	58	51	48
July 2023	2	47	48	48	48
August 2023	1	55	55	55	55
September 2023	1	42	42	42	42

2.3 Upland Location off the IM-3 Access Road, Near Top of Hill and Alternate Location

This location and its alternate location were approved as a proxy to a nearby sensitive receptor (Maze B) for noise monitoring. Monitoring was conducted from July 2022 through February 2024 at these noise monitoring stations to evaluate noise from construction or NTCRA activities due to the proximity of the sensitive receptor to construction, construction traffic, and NTCRA areas, such as:

- MW-20 Bench
- AOC-14
- IM-3 access road

Figure 2-1 shows the locations associated with these monitoring stations. Photographs 2-3A and 2-3B show the station.



Photograph 2-3A. Noise Monitoring Location in the Upland, off IM-3 Access Road, Near Top of Hill, Looking East Toward MW-20 Bench



Photograph 2-3B. Alternate Noise Monitoring Location in the Upland, off IM-3 Access Road, Near Top of Hill, Looking West Toward AOC14 during Soil NTCRA

Throughout monthly monitoring, a total of 72 individual measurements were taken at this station. Table 2-3 compiles the monthly data, including the minimum, maximum, average, and mean for each monthly data set.

Table 2-3. Attended Noise Monitoring Data at Upland Location, off IM-3 Access Road, Near Top of Hill and Alternate Location

Reporting Period	Monthly Monitoring Event Count	Monthly Minimum (dBA)	Monthly Maximum (dBA)	Monthly Average (dBA)	Monthly Median (dBA)
July 2022	5	47	53	51	52
August 2022	6	44	53	49	50
September 2022	4	50	56	53	54
October 2022	2	53	56	55	55
November 2022	8	46	57	52	52
December 2022	3	49	53	51	50
January 2023	6	48	55	52	52
February 2023	4	49	57	53	53
March 2023	8	48	54	52	52
April 2023	4	47	53	50	50
May 2023	3	45	54	51	54
June 2023	4	53	65	57	54
July 2023	2	52	56	54	54
September 2023	2	45	48	46	46
October 2023	3	56	70 ^[a]	61	58
November 2023	1	47	47	47	47
December 2023	1	60	60	60	60
January 2024	1	51	51	51	51
January 2024 (Alt Location)	3	47	62	53	50
February 2024	2	51	55	53	53

^[a] The maximum sound level of 70 dBA was noted during a period of high wind gusts at the monitoring location, coupled with lots of train traffic experienced during the monitoring event on October 25, 2023.

2.4 Location on a Bluff Below Topock Compressor Station, South of I-40 and East of Topock Maze

This location was approved as a proxy for Topock Maze for noise monitoring. Noise monitoring was conducted between July 2022 and December 2023 due to the proximity of Topock Maze to construction and NTCRA activities in Bat Cave Wash. Figure 2-1 shows the location of this monitoring station. Photograph 2-4 shows the station.



Photograph 2-4. Noise Monitoring Location on a Bluff Below Topock Compressor Station, just South of I-40 and East of Topock Maze, Looking South Toward Bat Cave Wash during Soil NTCRA

Soil Non-Time Critical Removal Action (NTCRA) Noise Monitoring Summary

Throughout monthly monitoring, a total of 186 individual measurements were conducted at this station. Table 2-4 compiles the monthly data, including the minimum, maximum, average, and mean for each monthly data set.

Table 2-4. Attended Noise Monitoring Data at Location on a Bluff below TCS, just South of I-40 and East of Topock Maze

Reporting Period	Monthly Monitoring Event Count	Monthly Minimum (dBA)	Monthly Maximum (dBA)	Monthly Average (dBA)	Monthly Median (dBA)
July 2022	21	51	65	56	56
August 2022	22	51	59	56	56
September 2022	13	53	60	57	57
October 2022	23	54	59	57	57
November 2022	15	54	59	56	57
January 2023	9	54	60	57	57
February 2023	18	52	60	57	57
March 2023	13	54	59	56	56
April 2023	13	52	59	56	57
May 2023	5	55	58	56	56
June 2023	7	56	59	57	57
July 2023	12	50	59	56	57
August 2023	1	53	53	53	53
September 2023	5	55	59	57	57
October 2023	2	53	55	54	54
November 2023	3	53	61	57	56
December 2023	4	56	70 ^[a]	61	58

^[a] The maximum sound level of 70 dBA was noted when I-40 truck traffic was noticeably loud during the monitoring event on December 13, 2023. During this noticeable event, noise from NTCRA activities in Bat Cave Wash was not audible to the attending Compliance personnel.

2.5 Location West of the Access Road to Bat Cave Wash, on the Same Elevation as Topock Maze

The location was approved as a proxy for Topock Maze for noise monitoring. Noise monitoring was conducted between July 2022 and December 2023 due to the proximity of Topock Maze to the access road to Bat Cave Wash used during the Soil NTCRA. Figure 2-1 shows the location of this monitoring station. Photographs 2-5A to C show the station.



Photograph 2-5A. Noise Monitoring Location West of the Access Road to Bat Cave Wash, on Same Elevation as Topock Maze, Looking North



Photograph 2-5B. Noise Monitoring Location West of the Access Road to Bat Cave Wash, on Same Elevation as Topock Maze, Looking Northwest at NTCRA Construction Equipment Traffic

Throughout monthly monitoring, a total of 146 individual measurements were conducted at this station. Table 2-5 compiles the monthly data, including the minimum, maximum, average, and mean for each monthly data set.

Soil Non-Time Critical Removal Action (NTCRA) Noise Monitoring Summary

Table 2-5. Attended Monitoring Data at Location West of the Access Road to Bat Cave Wash, on Same Elevation as Topock Maze

Reporting Period	Monthly Monitoring Event Count	Monthly Minimum (dBA)	Monthly Maximum (dBA)	Monthly Average (dBA)	Monthly Median (dBA)
July 2022	10	47	54	49	49
August 2022	15	46	52	49	49
September 2022	3	46	52	50	51
October 2022	19	43	54	50	50
November 2022	14	46	52	49	49
January 2023	5	49	52	50	50
February 2023	10	48	55	51	51
March 2023	11	50	57	52	52
April 2023	13	49	55	51	51
May 2023	6	51	56	53	52
June 2023	7	50	56	53	52
July 2023	9	48	52	50	49
August 2023	4	48	52	50	50
September 2023	7	51	74 ^[a]	56	56
October 2023	5	51	61 ^[b]	56	56
November 2023	4	47	57	53	55
December 2023	4	51	56	54	53

^[a] The maximum sound level of 74 dBA was noted when a large track excavator passed by the noise monitoring location on September 11, 2023. The next section describes the mitigation measures implemented.

^[b] The maximum sound level of 61 dBA was noted when a soil dump truck passed by the noise monitoring location on October 12, 2023. A high wind gust was also noted during the same monitoring event.

3. Mitigation Measures

During the September 11, 2023, mobilization of construction equipment to Bat Cave Wash for NTCRA activities, noise measurements at the location west of the access road varied between 51 and 74 dBA, with an average and median of 56 dBA. The maximum noise level of 74 dBA was noted when a large, tracked excavator passed the monitoring location. The next highest sound level of 67 dBA was caused by a construction roller. In addition, a water truck registered a 58 to 63 dBA when its motor was turned on to spray water.

To reduce noise levels from tracked equipment experienced during mobilization, PG&E received approval, through the NTCRA Biological Agreement process, for equipment turnaround areas that allowed equipment to be transported on wheeled trucks to the top of Bat Cave Wash.

To reduce noise levels from water trucks, PG&E placed signages at a distance where the water trucks started to become visible from the monitoring location, which informed the Driver to turn down the speed of the motor that spray water (not shut off the motor) until the truck descends into Bat Cave Wash.

These measures were effective in reducing the noise levels generated by construction traffic, as measured at the approved monitoring location off the access road to Bat Cave Wash.

4. References

California Department of Toxic Substances Control (DTSC). 1996. *Corrective Action Consent Agreement (Revised), Pacific Gas and Electric Company's Topock Compressor Station, Needles, California*. EPA ID No. CAT080011729. February 2.

California Department of Toxic Substances Control (DTSC). 2018. *Final Subsequent Environmental Impact Report for the Pacific Gas and Electric Company Topock Compressor Station Final Groundwater Remediation Project*. April 24.

U.S. Department of the Interior (DOI). 2013. *Remedial Action/Remedial Design Consent Decree (CD) between the United States of America and Pacific Gas & Electric Company*. Case 5:13-cv-00074- BRO-OP, Document 23. Entered November 21.

Figure



LEGEND
 X Approximate Noise Monitoring Location

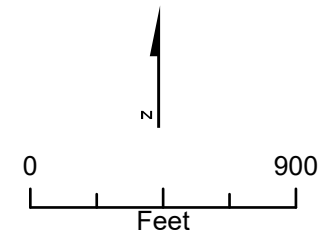


FIGURE 2-1
APPROXIMATE NOISE MONITORING LOCATIONS
DURING SOIL NON-TIME CRITICAL
REMOVAL ACTION IMPLEMENTATION
 NON-TIME CRITICAL REMOVAL ACTION COMPLETION REPORT
 PG&E TOPOCK COMPRESSOR STATION,
 NEEDLES, CALIFORNIA

Appendix E Confirmation Soil Sample Analytical Laboratory Reports

Due to file size, the Laboratory Reports are available upon request.

Appendix E. Sample ID to SDG Crosswalk Table
Soil NTCRA Completion Report
Topock Compressor Station, Needles, California

Asset Laboratories SDG	NativeID	Cape Technologies SDG	Cape Sample ID
N051851	AOC11TAA1-CW-1-3	3	AOC11TAA1-CW1
	AOC11TAA1-CW-3-6	3	AOC11TAA1-CW3
	AOC11TAA1-CW-5-6	3	AOC11TAA1-CW5
N051875	AOC11TAA1-CF-1-7.5	4	AOC11TAA1-CF-1-7.5
	AOC11TAA1-CF-2-7.5	4	AOC11TAA1-CF-2-7.5
	AOC11TAA1-CF-2-7.5FD	4	AOC11TAA1-CF-2-7.5FD
	AOC11TAA1-CF-3-10	4	AOC11TAA1-CF-3-10
N051946	AOC11TAA1-CW6-3	5	AOC11TAA1-CW6-3
	AOC11TAA1-CW7-3	5	AOC11TAA1-CW7-3
	AOC11TAA1-CW8-3	5	AOC11TAA1-CW8-3
	AOC11TAA1-CW9-3	NA	NA
N052053	AOC11TAA1-CW10-4	NA	NA
	AOC11TAA1-CW11-5	7	AOC11TAA1-CW11-5
N052085	AOC10TAA3-CF1-2	7	AOC10TAA3-CF1-2
	AOC10TAA3-CW1-1	7	AOC10TAA3-CW1-1
	AOC10TAA3-CW2-2	7	AOC10TAA3-CW2-2
	AOC10TAA3-CW3-2	7	AOC10TAA3-CW3-2
	AOC10TAA3-CW4-1	7	AOC10TAA3-CW4-1
	AOC10TAA4-CF1-5	6	AOC10TAA4-CF1-5
	AOC10TAA4-CW1-3	6	AOC10TAA4-CW1-3
	AOC10TAA4-CW2-3	6	AOC10TAA4-CW2-3
	AOC10TAA4-CW3-3	6	AOC10TAA4-CW3-3
	NA	6	AOC10TAA4-CW3-3FD
	AOC10TAA4-CW4-3	6	AOC10TAA4-CW4-3
	AOC10TAA4-CW5-3	6	AOC10TAA4-CW5-3
	N052226	AOC10TAA2-CW1-4	8
AOC10TAA2-CW2-3		8	AOC10TAA2-CW2-3
AOC10TAA2-CW3-4		8	AOC10TAA2-CW3-4
N052260	AOC10TAA2-CW4-4	9	AOC10TAA2-CW4-4
	AOC10TAA2-CW5-4	9	AOC10TAA2-CW5-4
N052604	AOC11TAA1-CW11a-4	10	AOC11TAA1-CW11a-4
	AOC11TAA1-CW6a-4	10	AOC11TAA1-CW6a-4
	AOC11TAA1-CW6a-4FD	10	AOC11TAA1-CW6a-4_FD
N052629	AOC11TAA1-CF4-7	11	AOC11TAA1-CF4-7
	AOC11TAA1-CF5-7	11	AOC11TAA1-CF5-7
	AOC11TAA1-CF6-7	11	AOC11TAA1-CF6-7
	AOC11TAA1-CF7-7	11	AOC11TAA1-CF7-7
	AOC11TAA1-CW5a-4	11	AOC11TAA1-CW5a-4
	AOC11TAA1-CW7a-4	11	AOC11TAA1-CW7a-4
	AOC11TAA1-CW9a-4	11	AOC11TAA1-CW9a-4
N052736	AOC10TAA2-CW6-4	12	AOC10TAA2-CW6-4
	AOC10TAA2-CW6-4FD	12	AOC10TAA2-CW6-4 FD
N052821	AOC10TAA2-CW2a-4	13	AOC10TAA2-CW2a-4
	AOC10TAA2-CW7-4	13	AOC10TAA2-CW7-4
	AOC10TAA2-CW7-4FD	13	AOC10TAA2-CW7-4FD
	AOC10TAA2-CW8-4	13	AOC10TAA2-CW8-4

Appendix E. Sample ID to SDG Crosswalk Table

Soil NTCRA Completion Report

Topock Compressor Station, Needles, California

Asset Laboratories SDG	NativeID	Cape Technologies SDG	Cape Sample ID
N052943	AOC10TAA2-CW10-5	14	AOC10TAA2-CW10-5
	AOC10TAA2-CW11-4	14	AOC10TAA2-CW11-4
	AOC10TAA2-CW9-5	14	AOC10TAA2-CW9-5
N053035	SWMU1TAA1-CF1-10	15	SWMU1TAA1-CF1-10
	SWMU1TAA1-CF2-10	15	SWMU1TAA1-CF2-10
	SWMU1TAA1-CW1-5	15	SWMU1TAA1-CW1-5
	SWMU1TAA1-CW1-5FD	15	SWMU1TAA1-CW1-5FD
	SWMU1TAA1-CW2-5	15	SWMU1TAA1-CW2-5
N053102	SWMU1TAA1-CF3-10	15	SWMU1TAA1-CF3-10
	SWMU1TAA1-CF4-10	16	SWMU1TAA1-CF4-10
	SWMU1TAA1-CW3-5	16	SWMU1TAA1-CW3-5
	SWMU1TAA1-CW4-5	16	SWMU1TAA1-CW4-5
	SWMU1TAA1-CW5-5	16	SWMU1TAA1-CW5-5
N053535	AOC10TAA2-CF3-5	17	AOC10TAA2-CF3-5
	AOC10TAA2-CF4-5	17	AOC10TAA2-CF4-5
	AOC10TAA2-CF5-5	17	AOC10TAA2-CF5-5
	AOC10TAA2-CF6-5	17	AOC10TAA2-CF6-5
	AOC10TAA2-CF7-5	17	AOC10TAA2-CF7-5
N053713	AOC10TAA2-CW12-3	18	AOC10TAA2-CW12-3
	AOC10TAA2-CW13-3	18	AOC10TAA2-CW13-3
	AOC10TAA2-CW14-3	18	AOC10TAA2-CW14-3
	AOC10TAA2-CW15-5	18	AOC10TAA2-CW15-5
	AOC10TAA2-CW15-5FD	18	AOC10TAA2-CW15-5FD
	AOC10TAA2-CW16-6	18	AOC10TAA2-CW16-6
N053851	AOC10TAA2-CF8-4	19	AOC10TAA2-CF8-4
	AOC10TAA2-CF9-4	19	AOC10TAA2-CF9-4
	AOC10TAA2-CW16a-4	19	AOC10TAA2-CW16a-4
	AOC10TAA2-CW16a-FD-4	19	AOC10TAA2-CW16a-4 FD
	AOC10TAA2-CW17-4	19	AOC10TAA2-CW17-4
	AOC10TAA2-CW18-5	19	AOC10TAA2-CW18-5
	AOC10TAA2-CW19-5	19	AOC10TAA2-CW19-5
N053926	AOC10TAA2-CF10-2	20/21	AOC10TAA2-CF10-2
	AOC10TAA2-CF11-3.5	20/21	AOC10TAA2-CF11-3.5
	AOC10TAA2-CW20-1	20/21	AOC10TAA2-CW20-1
	AOC10TAA2-CW20-1FD	20/21	AOC10TAA2-CW20-FD-1
	AOC10TAA2-CW21-2	20/21	AOC10TAA2-CW21-2
	AOC10TAA2-CW22-2	20/21	AOC10TAA2-CW22-2
N053955	AOC10TAA2-CW23-3	20/21	AOC10TAA2-CW23-3
	AOC10TAA4-CW6-3	20/21	AOC10TAA4-CW6-3
N054136	AOC10TAA4-CF2-5	22	AOC10TAA4-CF2-5
	AOC10TAA4-CW10-3	22	AOC10TAA4-CW10-3
	AOC10TAA4-CW11-3	22	AOC10TAA4-CW11-3
	AOC10TAA4-CW12-2	22/23	AOC10TAA4-CW12-2
	AOC10TAA4-CW7-2	22	AOC10TAA4-CW7-2
	AOC10TAA4-CW8-2	22	AOC10TAA4-CW8-2
	AOC10TAA4-CW9-1	22	AOC10TAA4-CW9-1

Appendix E. Sample ID to SDG Crosswalk Table
Soil NTCRA Completion Report
Topock Compressor Station, Needles, California

Asset Laboratories SDG	NativeID	Cape Technologies SDG	Cape Sample ID
N054157	AOC10TAA4-CF3-3	22/23	AOC10TAA4-CF3-3
	AOC10TAA4-CF4-3	22/23	AOC10TAA4-CF4-3
	AOC10TAA4-CW12a-1	22/23	AOC10TAA4-CW12a-1
	AOC10TAA4-CW13-2	22/23	AOC10TAA4-CW13-2
	AOC10TAA4-CW14-1	23	AOC10TAA4-CW14-1
	AOC10TAA4-CW15-1	23	AOC10TAA4-CW15-1
	AOC10TAA4-CW16-1	23	AOC10TAA4-CW16-1
	AOC10TAA4-CW17-1	23	AOC10TAA4-CW17-1
	AOC10TAA4-CW17-1FD	23	AOC10TAA4-CW17-1FD
N054238	AOC10TAA2-CF12-4	NA	AOC10TAA2-CF12-4
	AOC10TAA2-CF13-4	24	AOC10TAA2-CF13-4
	AOC10TAA2-CW24-2	NA	AOC10TAA2-CW24
	AOC10TAA2-CW25-2	24	AOC10TAA2-CW25-2
	AOC10TAA2-CW25-2 FD	24	AOC10TAA2-CW25-2FD
	AOC10TAA2-CW26-2	24	AOC10TAA2-CW26-2
	AOC10TAA2-CW27-2	24	AOC10TAA2-CW27-2
	AOC10TAA2-CW28-2	NA	AOC10TAA2-CW28
	AOC10TAA2-CW29-2	NA	AOC10TAA2-CW29-2
N054499	AOC10TAA2-CF14-6	25a	AOC10TAA2-CF14-6
	AOC10TAA2-CF15-6	25a	AOC10TAA2-CF15-6
	AOC10TAA2-CF16-5	25a	AOC10TAA2-CF16-5
	AOC10TAA2-CW25a-3	25a	AOC10TAA2-CW25a-3
	AOC10TAA2-CW30-5	25a	AOC10TAA2-CW30-5
	AOC10TAA2-CW31-4	25b	AOC10TAA2-CW31-4
	AOC10TAA2-CW32-2	25b	AOC10TAA2-CW32-2
	AOC10TAA2-CW33-2	25b	AOC10TAA2-CW33-2
	AOC10TAA2-CW33-2FD	25b	AOC10TAA2-CW33-2FD
N054535	AOC1TAA3-CF1-4	26	AOC1TAA3-CF1-4
	AOC1TAA3-CW1-3	26	AOC1TAA3-CW1-3
	AOC1TAA3-CW2-3	26	AOC1TAA3-CW2-3
	AOC1TAA3-CW3-3	26	AOC1TAA3-CW3-3
N054549	AOC1TAA3-CW4-4	27	AOC1TAA3-CW4-4
N054617	SWMU1TAA1-CF5-8	27	SWMU1TAA1-CF5-8
	SWMU1TAA1-CW6-6	27	SWMU1TAA1-CW6-6
	SWMU1TAA1-CW7-5	27	SWMU1TAA1-CW7-5
N054670	AOC1TAA3-CW5-1	28	AOC1TAA3-CW5-1
N054765	SWMU1TAA1-CF6-4	28	SWMU1TAA1-CF6-4
	SWMU1TAA1-CW8-2	28	SWMU1TAA1-CW8-2
	SWMU1TAA1-CW8-2FD	28	SWMU1TAA1-CW8-2FD
	SWMU1TAA1-CW9-2	28	SWMU1TAA1-CW9-2
N054879	SWMU1TAA1-CF7-6	29	SWMU1TAA1-CF7-6
	SWMU1TAA1-CF8-3	29	SWMU1TAA1-CF8-3
	SWMU1TAA1-CW10-2	29	SWMU1TAA1-CW10-2
	SWMU1TAA1-CW11-1	29	SWMU1TAA1-CW11-1
	SWMU1TAA1-CW12-2	29	SWMU1TAA1-CW12-2

Appendix E. Sample ID to SDG Crosswalk Table

Soil NTCRA Completion Report

Topock Compressor Station, Needles, California

Asset Laboratories SDG	NativeID	Cape Technologies SDG	Cape Sample ID
N054880	AOC1TAA1-CF1-5	30	AOC1TAA1-CF1-5
	AOC1TAA1-CW1-3	30	AOC1TAA1-CW1-3
	AOC1TAA1-CW2-3	30	AOC1TAA1-CW2-3
	AOC1TAA1-CW3-2	30	AOC1TAA1-CW3-2
	AOC1TAA1-CW4-2	30	AOC1TAA1-CW4-2
N054936	AOC14TAA1-CW1-2	31	AOC14TAA1-CW1-2
N055001	AOC14TAA1-CF1-6	31	AOC14TAA1-CF1-6
	AOC14TAA1-CF1-6FD	31	AOC14TAA1-CF1-6FD
	AOC14TAA1-CW2-4	31	AOC14TAA1-CW2-4
	AOC14TAA1-CW3-4	31	AOC14TAA1-CW3-4
	AOC14TAA1-CW4-4	31	AOC14TAA1-CW4-4
N055099	SWMU1TAA1-CF10-6	32	SWMU1TAA1-CF9-6
	SWMU1TAA1-CF9-6	32	SWMU1TAA1-CF10-6
	SWMU1TAA1-CW10a-2	32	SWMU1TAA1-CW10a-2
	SWMU1TAA1-CW13-4	32	SWMU1TAA1-CW13-4
	SWMU1TAA1-CW14-5	32	SWMU1TAA1-CW14-5
	SWMU1TAA1-CW15-2	32	SWMU1TAA1-CW15-2
N055175	AOC14TAA1-CF1-6	31	AOC14TAA1-CW1-2
	AOC14TAA1-CF1-6FD	31	AOC14TAA1-CF1-6
	AOC14TAA1-CW1-2	31	AOC14TAA1-CF1-6FD
	AOC14TAA1-CW2-4	31	AOC14TAA1-CW2-4
	AOC14TAA1-CW3-4	31	AOC14TAA1-CW3-4
	AOC14TAA1-CW4-4	31	AOC14TAA1-CW4-4
N055284	AOC10TAA2-CF17-6	33	AOC10TAA2-CF17-6
	AOC10TAA2-CW28a-3	33	AOC10TAA2-CW28a-3
	AOC10TAA2-CW34-3	33	AOC10TAA2-CW34-3
	SWMU1TAA1-CF10a-7	33	SWMU1TAA1-CF10a-7
	SWMU1TAA1-CF9a-7	33	SWMU1TAA1-CF9a-7
N055378	AOC10TAA2-CF18-7	34	AOC10TAA2-CF18-7
	AOC10TAA2-CW21a-3	34	AOC10TAA2-CW21a-3
	AOC10TAA2-CW22a-3	34	AOC10TAA2-CW22a-3
	AOC10TAA2-CW29a-4	34	AOC10TAA2-CW29a-4
N055427	AOC10TAA2-CF14a-6	35	AOC10TAA2-CF14a-6
	AOC10TAA2-CF19-5	35	AOC10TAA2-CF19-5
	AOC10TAA2-CF20-5	35	AOC10TAA2-CF20-5
	AOC10TAA2-CW35-3	35	AOC10TAA2-CW35-3
	AOC10TAA2-CW35-3FD	35	AOC10TAA2-CW35-3FD
	AOC10TAA2-CW36-2	35	AOC10TAA2-CW36-2
N055478	AOC10TAA2-CF21-5	36	AOC10TAA2-CF21-5
	AOC10TAA2-CW37-3	36	AOC10TAA2-CW37-3
	AOC10TAA2-CW38-4	36	AOC10TAA2-CW38-4
	AOC10TAA2-CW39-2	36	AOC10TAA2-CW39-2
	AOC10TAA2-CW40-6	36	AOC10TAA2-CW40-6

Appendix E. Sample ID to SDG Crosswalk Table
Soil NTCRA Completion Report
Topock Compressor Station, Needles, California

Asset Laboratories SDG	NativeID	Cape Technologies SDG	Cape Sample ID
N055533	AOC10TAA2-CF22-7	37	AOC10TAA2-CF22-7
	AOC10TAA2-CF8a-5	37	AOC10TAA2-CF8a-5
	AOC10TAA2-CW12a-5	37	AOC10TAA2-CW12a-5
	AOC10TAA2-CW41-2	37	AOC10TAA2-CW41-2
	AOC10TAA2-CW41-2FD	37	AOC10TAA2-CW41-2FD
N055970	AOC10TAA4-CF2a-7	38	AOC10TAA4-CF2a-7
	AOC10TAA4-CF5-0	38	AOC10TAA4-CF5-0
	AOC10TAA4-CW12b-1	38	AOC10TAA4-CW12b-1
	AOC10TAA4-CW12b-1FD	38	AOC10TAA4-CW12b-1FD
	AOC10TAA4-CW16a-1	38	AOC10TAA4-CW16a-1
	AOC10TAA4-CW17a-1	38	AOC10TAA4-CW17a-1
N056017	AOC10TAA2-CF23-0	39	AOC10TAA2-CF23-0
	AOC10TAA2-CF24-0	39	AOC10TAA2-CF24-0
N056079	AOC10TAA2-CF15a-1	39	AOC10TAA2-CF15a-1
	AOC10TAA2-CF4a-1	39	AOC10TAA2-CF4a-1
	AOC10TAA2-CF7a-1	39	AOC10TAA2-CF7a-1
	AOC10TAA2-CW10a-5	39	AOC10TAA2-CW10a-5
	AOC10TAA2-CW30a-5	39	AOC10TAA2-CW30a-5
	AOC10TAA2-CW30a-5FD	39	AOC10TAA2-CW30a-5FD
N056349	AOC10TAA2-CF22a-3	40	AOC10TAA2-CF22a-3
	AOC10TAA2-CF22a-3FD	40	AOC10TAA2-CF22a-3FD
	AOC10TAA2-CW12b-5	40	AOC10TAA2-CW12b-5
	AOC10TAA2-CW18a-5	40	AOC10TAA2-CW18a-5
N056655	AOC10TAA2-CW26a-2	41a	AOC10TAA2-CW26a-2
	AOC10TAA2-CW26a-2FD	41a	AOC10TAA2-CW26a-2FD
N056727	AOC10TAA4-CF6-2	41b	AOC10TAA4-CF6-2
	AOC10TAA4-CF7-2	41b	AOC10TAA4-CF7-2
	AOC10TAA4-CF8-2	NA	AOC10TAA4-CF8-2
	AOC10TAA4-CW16b-2.5	41a	AOC10TAA4-CW16b-2.5
	AOC10TAA4-CW16b-2.5FD	41a	AOC10TAA4-CW16b-2.5FD
	AOC10TAA4-CW18-1	41a	AOC10TAA4-CW18-1
	AOC10TAA4-CW19-4	41b	AOC10TAA4-CW19-4
	AOC10TAA4-CW20-1	41b	AOC10TAA4-CW20-1
	AOC10TAA4-CW21-1	41b	AOC10TAA4-CW21-1
N057386	SWMU1TAA1-CF11-10	NA	SWMU1TAA1-CF11-10
	SWMU1TAA1-CF12-10	NA	SWMU1TAA1-CF12-10
	SWMU1TAA1-CF12-10FD	NA	SWMU1TAA1-CF12-10FD
	SWMU1TAA1-CW16-5	NA	SWMU1TAA1-CW16-5
	SWMU1TAA1-CW3a-5	NA	SWMU1TAA1-CW3a-5
N057392	AOC10TAA4-CW16C-2	NA	AOC10TAA4-CW16c-2
N057839	AOC9TAA1-CF1-3	43	AOC9TAA1-CF1-3
	AOC9TAA1-CW1-2	43	AOC9TAA1-CW1-2
	AOC9TAA1-CW2-2	43	AOC9TAA1-CW2-2
	AOC9TAA1-CW3-2	43	AOC9TAA1-CW3-2
	AOC9TAA1-CW4-2	43	AOC9TAA1-CW4-2

Appendix E. Sample ID to SDG Crosswalk Table

Soil NTCRA Completion Report

Topock Compressor Station, Needles, California

Asset Laboratories SDG	NativeID	Cape Technologies SDG	Cape Sample ID
N058013	AOC10TAA1-CF1-3	44	AOC10TAA1-CF1-3
	AOC10TAA1-CF2a-3	44	AOC10TAA1-CF2a-3
	AOC10TAA1-CW1-2	44	AOC10TAA1-CW1-2
	AOC10TAA1-CW2-2	44	AOC10TAA1-CW2-2
N058110	AOC10TAA1-CF2-0	45	AOC10TAA1-CF2-0
	AOC10TAA1-CW3-0.5	45	AOC10TAA1-CW3-0.5
	AOC10TAA1-CW4-2	45	AOC10TAA1-CW4-2
	AOC10TAA1-CW5-2	45	AOC10TAA1-CW5-2
	AOC10TAA1-CW5-2FD	45	AOC10TAA1-CW5-2FD
	AOC10TAA1-CW6-2	45	AOC10TAA1-CW6-2
N058301	AOC10TAA1-CF3-3	46	AOC10TAA1-CF3-3
	AOC10TAA1-CF4-3	46	AOC10TAA1-CF4-3
	AOC10TAA1-CF5-3	46	AOC10TAA1-CF5-3
	AOC10TAA1-CW7-2	46	AOC10TAA1-CW7-2
	AOC10TAA1-CW8-2	46	AOC10TAA1-CW8-2
N058690	AOC10TAA1-CF6-3	47	AOC10TAA1-CF6-3
	AOC10TAA1-CF6-3FD	47	AOC10TAA1-CF6-3FD
	AOC10TAA1-CF7-3	47	AOC10TAA1-CF7-3
N058778	AOC10TAA1-CF8-3	48	AOC10TAA1-CF8-3
	AOC10TAA1-CF8-3FD	48	AOC10TAA1-CF8-3FD
	AOC10TAA1-CW9-1.5	48	AOC10TAA1-CW9-1.5
	AOC10TAA1-EB01	NA	AOC10TAA1-EB01
N058956	AOC10TAA1-CF9-3	49	AOC10TAA1-CF9-3
N058978	AOC10TAA1-CW10-1	49	AOC10TAA1-CW10-1
	EB02-Soil-CFM	NA	EB02-Soil-CFM
N059132	AOC10TAA1-CF10-3	49	AOC10TAA1-CF10-3
	AOC10TAA1-CW11-2.5	49	AOC10TAA1-CW11-2.5
	EB03-Soil-CFM	NA	EB03-Soil-CFM
N059149	AOC10TAA1-CF11-4	49	AOC10TAA1-CF11-4
	AOC10TAA1-CW12-3	49	AOC10TAA1-CW12-3
	AOC10TAA1-CW12-3FD	49	AOC10TAA1-CW12-3FD
	AOC10TAA1-CW13-1.5	50	AOC10TAA1-CW13-1.5
	AOC9TAA1-CW2a-1	50	AOC9TAA1-CW2a-1
	AOC9TAA1-CW4a-1	50	AOC9TAA1-CW4a-1
	EB04-Soil-CFM	NA	EB04-soil-CFM
N059205	AOC10TAA1-CW14-2.5	50	AOC10TAA1-CW14-2.5
	EB05-Soil-CFM	NA	EB05-Soil-CFM
N059309	AOC10TAA1-CF12-5	50	AOC10TAA1-CW15-3
	AOC10TAA1-CW15-3	50	AOC10TAA1-CF12-5
	EB06-Soil-CFM	NA	EB06-Soil-CFM
N059362	AOC10TAA1-CF13-5	51	AOC10TAA1-CF13-5
	AOC10TAA1-CF14-5	51	AOC10TAA1-CF14-5
	AOC10TAA1-CF14-5FD	51	AOC10TAA1-CF14-5FD
	AOC10TAA1-CW16-3	51	AOC10TAA1-CW16-3
	AOC10TAA1-CW17-3	51	AOC10TAA1-CW17-3
	AOC10TAA1-CW18-3	51	AOC10TAA1-CW18-3
	EB07-Soil-CFM	NA	EB07-Soil-CFM

Appendix E. Sample ID to SDG Crosswalk Table

Soil NTCRA Completion Report

Topock Compressor Station, Needles, California

Asset Laboratories SDG	NativeID	Cape Technologies SDG	Cape Sample ID
N059450	EB08-Soil-CFM	NA	EB08-soil-CFM
	SWMU1TAA1-CF13-10	52	SWMU1TAA1-CF13-10
	SWMU1TAA1-CW17-5	52	SWMU1TAA1-CW17-5
	SWMU1TAA1-CW18-6	52	SWMU1TAA1-CW18-6
	SWMU1TAA1-CW19-5	52	SWMU1TAA1-CW19-5
N059500	AOC1TAA1-CF1a-7	53	AOC1TAA1-CF1a-7
	AOC1TAA1-CW1a-5	53	AOC1TAA1-CW1a-5
	AOC1TAA1-CW2a-5	53	AOC1TAA1-CW2a-5
	AOC1TAA1-CW3a-5	53	AOC1TAA1-CW3a-5
	AOC1TAA1-CW4a-5	53	AOC1TAA1-CW4a-5
	EB09-Soil-CFM	NA	EB09-Soil-CFM
N059501	AOC1_T5D-5.5-6 (RFI Vol3 Sample)	NA	NA
N059580	EB10-Soil-CFM	NA	EB10-Soil-CFM
	SWMU1TAA1-CF14-10	54	SWMU1TAA1-CF14-10
	SWMU1TAA1-CF15-10	54	SWMU1TAA1-CF15-10
	SWMU1TAA1-CW20-6	54	SWMU1TAA1-CW20-6
N059664	AOC1TAA2-CW1-5.5	55	AOC1TAA2-CW1-5.5
	EB11-Soil-CFM	NA	EB11-Soil-CFM
N059753	AOC1TAA2-CF1-10	55	AOC1TAA2-CF1-10
	AOC1TAA2-CW2-5	55	AOC1TAA2-CW2-5
	AOC1TAA2-CW3-5	55	AOC1TAA2-CW3-5
	EB12-Soil-CFM	NA	EB12-Soil-CFM
	SWMU1TAA1-CW21-6	55	SWMU1TAA1-CW21
N059806	AOC1TAA2-CF2-10	56	AOC1TAA2-CF2-10
	AOC1TAA2-CW4-5	56	AOC1TAA2-CW4-5
	AOC1TAA2-CW5-7	56	AOC1TAA2-CW5-7
	EB13-Soil-CFM	NA	EB13-Soil-CFM
N059860	AOC1TAA1-CW1b-5	56	AOC1TAA1-CW1b-5
	AOC1TAA1-CW2b-5	56	AOC1TAA1-CW2b-5
N059900	EB14-Soil-CFM	NA	EB14-Soil-CFM
	SWMU1TAA1-CF16-10	56	SWMU1TAA1-CF16-10
	SWMU1TAA1-CW22-6	56	SWMU1TAA1-CW22-6
	SWMU1TAA1-CW23-2	56	SWMU1TAA1-CW23-2
N059986	AOC16TAA1-CF1-1	57	AOC16TAA1-CF1-1
	AOC16TAA1-CW1-0.5	57	AOC16TAA1-CW1-0.5
	AOC16TAA1-CW1-0.5FD	57	AOC16TAA1-CW1-0.5FD
	AOC16TAA1-CW2-0.5	57	AOC16TAA1-CW2-0.5
	AOC16TAA1-CW3-0.5	57	AOC16TAA1-CW3-0.5
	AOC16TAA1-CW4-0.5	57	AOC16TAA1-CW4-0.5
	EB15-Soil-CFM	NA	EB15-Soil-CFM
	SWMU1TAA1-CW24-7	57	SWMU1TAA1-CW24-7
N060011	AOC1TAA2-CW5a-5	58	AOC1TAA2-CW5a-5
	EB16-Soil-CFM	NA	EB16Soil-CFM
N060187	AOC10TAA1-CW6a-1	58	AOC10TAA1-CW6a-1

Appendix E. Sample ID to SDG Crosswalk Table
Soil NTCRA Completion Report
Topock Compressor Station, Needles, California

Asset Laboratories SDG	NativeID	Cape Technologies SDG	Cape Sample ID
N060288	AOC27TAA1-CF1-5	58	AOC27TAA1-CF1-5
	AOC27TAA1-CW1-3	59	AOC27TAA1-CW1-3
	AOC27TAA1-CW1-3FD	59	AOC27TAA1-CW1-3FD
	AOC27TAA1-CW2-3	59	AOC27TAA1-CW2-3
	AOC27TAA1-CW3-4	59	AOC27TAA1-CW3-4
	AOC27TAA1-CW4-1.5	59	AOC27TAA1-CW4-1.5
	EB17-Soil-CFM	NA	EB17Soil-CFM
N060289	AOC10TAA1-CW19-3	58	AOC10TAA1-CW19-3
	AOC1TAA2-CW6-6	60	AOC1TAA2-CW6-6
N060325	AOC1TAA2-CW4a-6	60	AOC1TAA2-CW4a-6
	AOC1TAA2-CW7-8	60	AOC1TAA2-CW7-8
	EB18-Soil-CFM	NA	EB18Soil-CFM
N060391	AOC1TAA1-CW1c-5	61	AOC1TAA1-CW1c-5
	AOC1TAA1-CW1d-5	61	AOC1TAA1-CW1d-5
	AOC1TAA1-CW2c-5	61	AOC1TAA1-CW2c-5
	AOC1TAA1-CW2d-5	61	AOC1TAA1-CW2d-5
	AOC1TAA1-CW3b-5	61	AOC1TAA1-CW3b-5
N060392	AOC1TAA2-CW6a-6	60	AOC1TAA2-CW6a-6
	AOC1TAA2-CW6b-6	60	AOC1TAA2-CW6b-6
	EB19-Soil-CFM	NA	EB19Soil-CFM
N060466	AOC1TAA2-CW8-7	62	AOC1TAA2-CW8-7
	EB20-Soil-CFM	NA	EB20-Soil-CFM
	SWMU1TAA1-CW25-7	62	SWMU1TAA1-CW25-7
	SWMU1TAA1-CW26-7	62	SWMU1TAA1-CW26-7
	SWMU1TAA1-CW26-7FD	62	SWMU1TAA1-CW26-7FD
N060672	AOC27TAA1-CF2-7	63	AOC27TAA1-CF2-7
	AOC27TAA1-CW5-3	63	AOC27TAA1-CW5-3
	EB21-Soil-CFM	NA	NA
	SWMU1TAA1-CF17-10	63	SWMU1TAA1-CF17-10
	SWMU1TAA1-CF18-10	63	SWMU1TAA1-CF18-10
	SWMU1TAA1-CW20a-5	63	SWMU1TAA1-CW20a-5
	SWMU1TAA1-CW24a-5	63	SWMU1TAA1-CW24a-5
	SWMU1TAA1-CW25a-5	64	SWMU1TAA1-CW25a-5
	SWMU1TAA1-CW27-5	64	SWMU1TAA1-CW27-5
	SWMU1TAA1-CW27-FD	64	SWMU1TAA1-CW27-5FD
	SWMU1TAA1-CW28-5	64	SWMU1TAA1-CW28-5
N060702	AOC1TAA2-CF3-10	64	AOC1TAA2-CF3-10
	EB22-Soil-CFM	NA	EB22-Soil-CFM
N061101	AOC16TAA1-CW1a-0.5	65	AOC16TAA1-CW1a-0.5
	EB23-Soil-CFM	NA	EB23-Soil-CFM
N061197	EB24-Soil-CFM	NA	EB24-Soil-CFM
	SWMU1TAA1-CF19-10	65	SWMU1TAA1-CF19-10
	SWMU1TAA1-CW29-5	65	SWMU1TAA1-CW2a-5
	SWMU1TAA1-CW2a-5	65	SWMU1TAA1-CW29-5
	SWMU1TAA1-CW7a-5	65	SWMU1TAA1-CW7a-5

Appendix E. Sample ID to SDG Crosswalk Table

Soil NTCRA Completion Report

Topock Compressor Station, Needles, California

Asset Laboratories SDG	NativeID	Cape Technologies SDG	Cape Sample ID
N061250	AOC1TAA2-CF4-10	67	AOC1TAA2-CF4-10
	AOC1TAA2-CW5b-7	67	AOC1TAA2-CW5b-7
	AOC1TAA2-CW6c-7	67	AOC1TAA2-CW6c-7
	EB25-Soil-CFM	NA	EB25-Soil-CFM
N061272	AOC14TAA1-CF1a-10	66	AOC14TAA1-CF1a-10
	AOC14TAA1-CF2-10	67	AOC14TAA1-CF2-10
	AOC14TAA1-CF3-10	67	AOC14TAA1-CF3-10
	AOC14TAA1-CW1a-1	NA	NA
	AOC14TAA1-CW5-5	66	AOC14TAA1-CW5-5
	AOC14TAA1-CW6-5	66	AOC14TAA1-CW6-5
	AOC14TAA1-CW7-1	66	AOC14TAA1-CW7-1
	EB26-Soil-CFM	NA	EB26-Soil-CFM
N061415	AOC14TAA1-CF1a-10	66	AOC14TAA1-CF1a-10
	AOC14TAA1-CF2-10	67	AOC14TAA1-CF2-10
	AOC14TAA1-CF3-10	67	AOC14TAA1-CF3-10
	AOC14TAA1-CW1a-1	NA	NA
	AOC14TAA1-CW5-5	66	AOC14TAA1-CW5-5
	AOC14TAA1-CW6-5	66	AOC14TAA1-CW6-5
	AOC14TAA1-CW7-1	66	AOC14TAA1-CW7-1
N061461	AOC1TAA2-CW10-4	68	AOC1TAA2-CW10-4
	AOC1TAA2-CW11-4	68	AOC1TAA2-CW11-4
	AOC1TAA2-CW9-4	68	AOC1TAA2-CW9-4
N061462	EB27-Soil-CFM	NA	EB27-Soil-CFM
	SWMU1TAA3-CF1-3	68	SWMU1TAA3-CF1-3
	SWMU1TAA3-CW1-2	68	SWMU1TAA3-CW1-2
	SWMU1TAA3-CW2-2	68	SWMU1TAA3-CW2-2
	SWMU1TAA3-CW3-2	68	SWMU1TAA3-CW3-2
	SWMU1TAA3-CW4-2	68	SWMU1TAA3-CW4-2
N061533	AOC1TAA2-CW5c-7	69	AOC1TAA2-CW5c-7
	EB28-Soil-CFM	NA	EB28-Soil-CFM
	SWMU1TAA1-CF20-10	69	SWMU1TAA1-CF20-10
	SWMU1TAA1-CW29a-4	69	SWMU1TAA1-CW29a-4
	SWMU1TAA1-CW30-5	69	SWMU1TAA1-CW30-5
	SWMU1TAA1-CW31-5	69	SWMU1TAA1-CW31-5
	SWMU1TAA1-CW7b-6	69	SWMU1TAA1-CW7b-6
N061562	AOC1TAA2-CW12-3	70	AOC1TAA2-CW12-3
	AOC1TAA2-CW12-3FD	70	AOC1TAA2-CW12-3FD
	EB29-Soil-CFM	NA	EB29-Soil-CFM
	SWMU1TAA1-CF21-5	70	SWMU1TAA1-CF21-5
	SWMU1TAA1-CW32-4	70	SWMU1TAA1-CW32-4
	SWMU1TAA1-CW33-4	70	SWMU1TAA1-CW33-4
	SWMU1TAA1-CW34-4	70	SWMU1TAA1-CW34-4
N061596	EB30-Soil-CFM	NA	EB30-Soil-CFM
	SWMU1TAA3-CF1a-3	71	SWMU1TAA3-CF1a-3
	SWMU1TAA3-CW5-2	71	SWMU1TAA3-CW5-2

Appendix E. Sample ID to SDG Crosswalk Table

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Topock Compressor Station, Needles, California

Asset Laboratories SDG	NativeID	Cape Technologies SDG	Cape Sample ID
N061713	EB31-Soil-CFM	NA	NA
	SWMU1TAA1-CW32a-4	71	SWMU1TAA1-CW32a-4
	SWMU1TAA1-CW32a-4FD	71	SWMU1TAA1-CW32a-4FD
N061795	EB32-Soil-CFM	NA	EB32-Soil-CFM
	SWMU1TAA2-CF1-4	72	SWMU1TAA2-CF1-4
	SWMU1TAA2-CF2-4	72	SWMU1TAA2-CF2-4
	SWMU1TAA2-CW1-3	72	SWMU1TAA2-CW1-3
	SWMU1TAA2-CW2-3	72	SWMU1TAA2-CW2-3
	SWMU1TAA2-CW3-3	72	SWMU1TAA2-CW3-3
N061835	EB33-Soil-CFM	NA	EB33-Soil-CFM
	SWMU1TAA2-CW4-1.5	73	SWMU1TAA2-CW4-1.5
	SWMU1TAA2-CW4-1.5FD	73	SWMU1TAA2-CW4-1.5FD
N061841	AOC14TAA1-CF2-10	NA	NA
N061877	EB34-Soil-CFM	NA	EB34-Soil-CFM
	SWMU1TAA2-CF3-4	73	SWMU1TAA2-CF3-4
	SWMU1TAA2-CW5-3	73	SWMU1TAA2-CW5-3
	SWMU1TAA2-CW6-1.5	73	SWMU1TAA2-CW6-1.5
	SWMU1TAA2-CW6-FD-1.5	73	SWMU1TAA2-CW6-1.5FD
N061919	EB35-Soil-CFM	NA	EB35-Soil-CFM
	SWMU1TAA2-CW7-3	74	SWMU1TAA2-CW7-3
	SWMU1TAA2-CW8-3	74	SWMU1TAA2-CW8-3
N061960	EB36-Soil-CFM	NA	EB36-Soil-CFM
	SWMU1TAA1-CF22-10	74	SWMU1TAA1-CF22-10
	SWMU1TAA1-CW26a-5	74	SWMU1TAA1-CW26a-5
	SWMU1TAA1-CW35-5	75	SWMU1TAA1-CW35-5
	SWMU1TAA1-CW36-3	75	SWMU1TAA1-CW36-3
	SWMU1TAA1-CW36-3FD	75	SWMU1TAA1-CW36FD-3
	SWMU1TAA1-CW37-3	75	SWMU1TAA1-CW37-3
	SWMU1TAA1-CW38-4	75	SWMU1TAA1-CW38-4
	SWMU1TAA1-CW39-4	75	SWMU1TAA1-CW39-4
N062001	SWMU1TAA1-CW40-4	74	SWMU1TAA1-CW40-4
N062314	AOC14TAA1-CW8-4	76	AOC14TAA1-CW8-4
	AOC14TAA1-CW9-4	76	AOC14TAA1-CW9-4
	EB37-Soil-CFM	NA	EB37-Soil-CFM
N062345	AOC14TAA1-CF4-6	76	AOC14TAA1-CF4-6
	AOC14TAA1-CW11-3	76	AOC14TAA1-CW11-3
	AOC14TAA1-CW11-FD3	76	AOC14TAA1-CW11-3FD
	AOC14TAA1-CW7a-3	76	AOC14TAA1-CW7a-3
	EB38-Soil-CFM	NA	EB38-Soil-CFM
N062371	EB39-Soil-CFM	NA	EB39-Soil-CFM
	SWMU1TAA3-CW4a-1.5	76	SWMU1TAA3-CW4a-1.5
N062485	AOC14TAA1-CF2a-13	77	AOC14TAA1-CF2a-13
	AOC14TAA1-CF2a-13FD	77	AOC14TAA1-CF2a-13FD
	AOC14TAA1-CF3a-13	77	AOC14TAA1-CF3a-13
	EB40-Soil-CFM	NA	EB40-Soil-CFM

Appendix E. Sample ID to SDG Crosswalk Table

Soil NTCRA Completion Report

Topock Compressor Station, Needles, California

Asset Laboratories SDG	NativeID	Cape Technologies SDG	Cape Sample ID
N062508	AOC14TAA1-CW10-5	77	AOC14TAA1-CW10-5
	AOC14TAA1-CW12-5	77	AOC14TAA1-CW12-5
	EB41-Soil-CFM	NA	EB41-Soil-CFM
N063331	LowerSpy-PS12-2024	NA	NA
	LowerSpy-PS16-2024	NA	NA
	LowerSpy-PS8-2024	NA	NA
	LowerSpy-PS9-2024	NA	NA
N063408	LowerSpy-PS10-2024	NA	NA
	LowerSpy-PS11-2024	NA	NA
	LowerSpy-PS6N-2024	NA	NA
	LowerSpy-PS6S-2024	NA	NA
N063471	LowerSpy-PS5-2024	NA	NA
N063560	LowerSpy-PS13-2024	NA	NA
	LowerSpy-PS14-2024	NA	NA
	LowerSpy-PS15-2024	NA	NA
	LowerSpy-PS7-2024	NA	NA
N063786	LowerSpy-PS1-2024	NA	NA
	LowerSpy-PS2-2024	NA	NA
	LowerSpy-PS3-2024	NA	NA
N063788	LowerSpy-PS11a-2024	NA	NA
	LowerSpy-PS14a-2024	NA	NA
	LowerSpy-PS15a-2024	NA	NA
N063898	EB42-Soil-CFM	NA	NA
	LowerSpy-PS10a-2024	NA	NA
	LowerSpy-PS4-2024	NA	NA
	LowerSpy-PS8a-2024	NA	NA
	LowerSpy-PS8a-2024FD	NA	NA
	LowerSpy-PS9a-2024	NA	NA
N063977	LowerSpy-PS16a-2024	NA	NA
	LowerSpy-PS6Na-2024	NA	NA
	LowerSpy-PS6Sa-2024	NA	NA
	LowerSpy-PS6Sa-2024FD	NA	NA
N064171	LowerSpy-PS21-2024	NA	NA
	UpperSpy-PS1-2024	NA	NA
	UpperSpy-PS2-2024	NA	NA
N064189	EB43-Soil-CFM	NA	NA
	LowerSpy-PS17-2024	NA	NA
	LowerSpy-PS22-2024	NA	NA
	UpperSpy-PS3-2024	NA	NA
	UpperSpy-PS3-2024FD	NA	NA
	UpperSpy-PS4-2024	NA	NA
	UpperSpy-PS5-2024	NA	NA
	UpperSpy-PS6-2024	NA	NA
	UpperSpy-PS7-2024	NA	NA
N064322	LowerSpy-PS13a-2024	NA	NA
	LowerSpy-PS6Sb-2024	NA	NA

Appendix E. Sample ID to SDG Crosswalk Table

Soil NTCRA Completion Report

Topock Compressor Station, Needles, California

Asset Laboratories SDG	NativeID	Cape Technologies SDG	Cape Sample ID
N064323	EB44-Soil-CFM	NA	NA
	LowerSpy-PS10b-2024	NA	NA
	LowerSpy-PS16b-2024	NA	NA
	LowerSpy-PS3a-2024	NA	NA
	LowerSpy-PS3a-2024FD	NA	NA
	LowerSpy-PS6Nb-2024	NA	NA
N064705	EB45-Soil-CFM	NA	NA
	LowerSpy-PS22a-2024	NA	NA
	UpperSpy-PS7R-2024	NA	NA
N064891	LowerSpy-PS16c-2024	NA	NA
N065107	EB46-Soil-CFM	NA	NA
	LowerSpy-PS18-2024	NA	NA
	LowerSpy-PS19-2024	NA	NA
	LowerSpy-PS19-2024FD	NA	NA
	LowerSpy-PS20-2024	NA	NA

Appendix F
Soil Data Quality Evaluation



Topock Compressor Station, Needles, California

Soil NTCRA Data Quality Evaluation Report

Revision 0

September 2024

Pacific Gas and Electric Company



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1. Introduction

Samples were collected and analyzed in support of the Soil Non-Time-Critical Removal Action (NTCRA) activities at the Pacific Gas and Electric Company (PG&E) Topock Compressor Station near Needles, California, between July 26, 2022 and May 1, 2024. This Data Quality Evaluation (DQE) Report only addresses confirmation soil samples collected during the Soil NTCRA.

This DQE Report summarizes the results of the quality assurance (QA) and quality control (QC) activities prescribed in the *PG&E Program Quality Assurance Project Plan, Revision 3* (CH2M 2014) (QAPP) and the *Addendum to the PG&E Program QAPP for Dioxins and Furans* (CH2M 2010) (QAPP Addendum). The QAPP and QAPP Addendum identify the method-specific QC requirements for each analytical parameter and matrix, and define a plan to test that the correct sampling, analytical, and data reduction procedures were followed by using audits and data validation.

2. Analytical Data

This DQE Report covers 396 soil samples and 43 soil field duplicate (FD) samples. These samples were reported by the laboratories in 115 sample delivery groups (SDGs).

The following labs performed the required analyses:

- AmeriSci Labs (AMLA) of Carson, California
- ASSET Laboratories (ASSET) of Las Vegas, Nevada
- Pace Analytical Services, LLC (PACE) of Minneapolis, Minnesota

All laboratories are certified by the California Department of Health Service's Environmental Laboratory Accreditation Program for the analyses presented herein. Samples were analyzed for one or more of the following analytes and methods; methods listed are those approved by the states where the labs are located:

- AMLA – Asbestos by California Air Resources Board (CARB) Method 435 (CARB 2017)
- ASSET (EPA 1996):
 - Metals by EPA Methods SW6010B (EPA 1998a) and SW6020A (EPA 1998b)
 - Hexavalent chromium (Cr[VI]) by EPA Method SW7199 (EPA 1996a)
 - Mercury by EPA Method SW7471A (EPA 1994)
- PACE – Dioxins and Furans (D/F) by EPA Method SW8290 (EPA 1996b)

The SDGs were evaluated by Jacobs chemists for data quality. Analytical performance was initially assessed on an SDG or an analytical batch basis. The association of laboratory QC samples and environmental samples from the same analytical batches are determined by the laboratory lot control number. The assessment of data includes a review of the following items:

- Chain-of-custody (CoC) documentation
- Holding-time (HT) compliance
- Required QC samples at the specified frequencies
- Laboratory method blanks (LBs)
- Laboratory control samples (LCSs)
- Surrogate spike recoveries
- Matrix spike and matrix spike duplicate (MS/MSD) samples
- FD precision
- Initial and continuing calibration criteria
- Other method-specific criteria defined by the QAPP and QAPP Addendum

Field samples were also reviewed for field compliance and data quality issues, including an evaluation of FD, equipment rinsate blank (EB), and trip blank data.

Data flags were assigned according to the QC acceptance limits defined in the QAPP and QAPP Addendum. These flags, as well as the reason for each flag, are entered into the electronic database and are available to data users. Multiple flags can routinely be applied to a specific sample method, matrix, and analyte combination; but there will be only one final flag. A final flag is applied to the data based on the flags entered into the database and is the most conservative of the applied validation flags. The final flag also includes matrix and blank sample impacts.

Data flags can be separated into the following two categories to be used in estimating both Contractor and analytical completeness:

1. Flags caused by laboratory deviation from requirements in the QAPP, revisions and addendum
2. Flags applied because of the nature of the sample matrix or method limitations

The data flag categories are tracked in the database and used to calculate both contractual and analytical completeness. The database keeps track of the type of protocol violation, and contractual and analytical completeness during data validation. The data flags are those listed in the QAPP and QAPP Addendum and are defined as follows:

- J = Analyte was present, but the reported value may not be accurate or precise because one or more QC specifications were not met, or the concentration is greater than the method detection limit (MDL) but less than the project quantitation limit.
- R = The result has been rejected; identification or quantitation could not be verified because critical QC specifications were not met.
- U = Analyte was analyzed for but not detected at the specified detection limit.
- UJ = Analyte was not detected exceeding the detection limit objective; however, the reported detection limit is approximate and might not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

In addition, the following flags were used, which have no QC implications and are not listed in the QAPP and QAPP Addendum:

- None = A database flag with no QC implications. A flag is not applied. This is a placeholder for calculating QC criteria issues that do not require flagging.
- Exclude = A database flag with no QC implications. When multiple data points have been reported, such as dilutions or re-extractions, the data that best match QAPP and QAPP Addendum QC requirements are presented to the data users, and the remainders are marked with this flag.

3. Data Assessment

Tables F1 through F8 at the end of this report provide the summaries of the data validation findings as follows:

- **Table F1 – Blank Contamination – Qualified Data:** Presents the data qualified due to laboratory or field blank contamination.
- **Table F2 – Calibration Exceedances – Qualified Data:** Presents the data qualified because of calibration criteria exceedances.
- **Table F3 – Field Duplicate Precision – Qualified Data:** Presents the data qualified due to FD imprecision.
- **Table F4 – Matrix Spike Precision and Accuracy – Qualified Data:** Presents the data qualified due to MS/MSD criteria exceedances.
- **Table F5 – Surrogate Recovery – Qualified Data:** Presents the data qualified because of surrogate recovery criteria exceedances.
- **Table F6 – Internal Standard Response Exceedances – Qualified Data:** Presents the data qualified because of internal standard response criteria exceedances.
- **Table F7 – Site Completeness by Analyte – Qualified Data:** Presents the percent completeness by analyte, matrix, and method.
- **Table F8 – Site and Sample Location Summary – Data Summary:** Presents the following information:
 - Sample locations
 - Site information
 - Field sample identification (ID)
 - Sample collection date sorted by site

This section describes activities reviewed for this data assessment.

3.1 Holding Times

HT exceedances result in the possible loss of target analytes due to degradation or chemical reactions that usually cause a negative bias to sample results. Detected sample results that marginally exceeded the method-recommended HTs were qualified as estimated and flagged "J," and nondetected results flagged "UJ."

All sample results were reported within applicable HTs.

3.2 Blanks

LB and calibration blanks (CBs) are used to monitor each preparation or analytical batch for contamination throughout the entire analytical process from sources, such as:

- Glassware
- Reagents
- Instrumentation
- Other potential contaminant sources within the laboratory

If a target analyte is detected in the LB or CB, similar detections in the samples are possibly artifacts of laboratory contamination. Therefore, sample results were qualified as not detected and flagged "U."

EBs are collected to monitor interference and contamination from potential sources associated with field collection activities. One EB is collected each day when nondedicated, reusable sampling equipment is being used onsite to collect site samples for laboratory analysis. For sample locations where disposable sampling equipment were used, collection of an EB is not necessary.

LBs and CBs were analyzed at the required frequency. For EBs, disposable sampling equipment was initially used to collect field samples, so EBs were not necessary. However, later on in the project, reusable sampling was employed that required the collection of an EB sample though implementation did not begin immediately.

Table F1 lists all sample results affected by laboratory contamination, which are summarized as follows:

- Several D/F isomers were detected less than or greater than the reporting limit (RL) in one or more EBs by EPA Method SW8290. A total of 109 associated detected sample results were less than or equal to 5 times the blank concentration, were qualified as not detected, and flagged "U."
- Several D/F isomers were detected less than the RL in one or more LBs by EPA Method SW8290. A total of 227 associated detected sample results were less than or equal to 5 times the blank concentration, were qualified as not detected, and flagged "U."

3.3 Calibration

Initial calibration and periodic calibration verification are essential to generating defensible analytical data. Calibrations that do not meet method requirements result in data that may have either a high or low bias. Detected sample results associated with calibrations that had a low bias were qualified as estimated and flagged "J," and nondetected results with a low bias were flagged "UJ." Detected sample results associated with calibrations that had a high bias were qualified as estimated and flagged "J"; nondetected results associated with a high bias were not qualified.

For EPA Method SW8290, very high concentrations of certain isomers, such as heptachlorodibenzo-dioxin or octachlorodibenzo-dioxin (OCDD) isomers, are not re-analyzed in diluted form because the time required for the analytical run makes it impractical for the laboratory to do so. In this case, the laboratory will report the result as exceeding the calibration range of the instrument. Detected sample results were qualified as estimated and flagged "J."

Table F2 lists the sample results affected by calibration exceedances, which are summarized as follows:

- On one or more analytical runs, the continuing calibration verification (CCV) standard exceeded the upper control limit (UCL) of 10% from the expected value for copper or lead by EPA Method SW6010B. Seven detected sample results were qualified as estimated and flagged "J."
- On one analytical run, the CCV standard exceeded the lower control limit (LCL) of 10% from the expected value for zinc by EPA Method SW6010B. Two detected sample results were qualified as estimated and flagged "J."
- On one analytical run, the CCV standard exceeded the UCL of 20% from the expected value for 1,2,3,7,8,9-hexachlorodibenzo-p-dioxin (PCDD) by EPA Method SW8290. Two detected sample results were qualified as estimated and flagged "J."
- On one or more analytical runs, the CCV standard exceeded the LCL of 20% from the expected value for octachlorodibenzofuran (OCDF) by EPA Method SW8290. Two detected sample results were qualified as estimated and flagged "J."
- Several D/F isomers were reported that exceeded the calibration range of the instrument for EPA Method SW8290. A total of 302 detected sample results were qualified as estimated and flagged "J."

3.4 Field Duplicates

An FD, or collocated sample, is an independent sample collected as close as possible to the original sample from the same source under identical conditions. FDs were collected in the field for 10% or more of the samples collected for analysis during each sampling event by matrix and method, and are used to document sampling and analytical precision and representativeness.

The relative percent difference (RPD) criterion for FDs for soils is 20% for inorganic methods and 50% for organic methods, with the exception of D/F, which is 40% when sample results are greater than 5 times the RL. Otherwise, sample difference must be less than 4 times the RL. When precision criteria were not met, detected sample results were qualified as estimated and flagged "J," and nondetected results were flagged "UJ."

Table F3 lists all sample results affected by FD precision, which are summarized as follows:

- Several metal compounds from one or more FD pairs exceeded the RPD acceptance criterion of 20%, or the sample difference was greater than 4 times the RL by EPA Method SW6010B. A total of 64 detected native and FD results were qualified as estimated concentrations and flagged "J."
- Cr(VI) from one or more FD pairs exceeded the RPD acceptance criterion of 40%, or the sample difference was greater than 4 times the RL by EPA Method SW7199. A total of 11 detected native and FD results were qualified as estimated concentrations and flagged "J," and 1 nondetected native and FD result was qualified as an estimated concentration and flagged "UJ."
- Mercury from one FD pair exceeded the RPD acceptance of the sample difference being less than 4 times the RL by EPA Method SW7471A. One detected native and FD result was qualified as an estimated concentration and flagged "J," and one nondetected native and FD result was qualified as an estimated concentration and flagged "UJ."
- Several D/F isomers as well as the calculated total D/F values from one or more FD pairs exceeded the RPD acceptance criteria of 40% or less than 4 times the RL. A total of 128 detected native and FD results were qualified as estimated concentrations and flagged "J."

3.5 Laboratory Control Samples

An LCS measures laboratory accuracy. Accuracy is the degree of agreement between a measured value and the expected value. The LCS is prepared from laboratory deionized or reagent-grade water and spiked with known amounts of the target analytes of interest.

Recovery of analytes outside of QC limits generally indicates a problem with the analytical procedure. A low LCS recovery indicates that the target analyte in associated samples is likely biased low. Associated detected and nondetected sample results were qualified as estimated and flagged "J" and "UJ."

Likewise, a high LCS recovery indicates that the target analyte in associated samples is likely biased high. Associated detected results were qualified as estimated and flagged "J." Nondetected results associated with a high bias recovery were not qualified.

When LCS recoveries were less than 10%, the associated detected sample results were qualified as estimated and flagged "J." Associated nondetected sample results were rejected from project use and flagged "R" unless professional judgment was used.

All sample results were within the LCS accuracy limits.

3.6 Matrix Spike Samples

MS recoveries are used to evaluate the effect of the sample matrix on the recovery of target analytes. A sample is fortified with a known quantity of a target analyte and is carried through the same preparation and analytical procedures as the unspiked sample.

MS recoveries outside the QC limits may indicate that the sample's matrix is affecting the method's ability to accurately quantify the target analyte in the associated sample or samples from similar locations. A low MS recovery generally indicates a negative bias in the sample data. Associated parent detected sample results were qualified as estimated and flagged "J" and nondetected results flagged "UJ."

When the MS or MSD recoveries, or both, were less than 10%, the associated parent sample detected results were qualified as estimated and flagged "J." For associated nondetected parent samples, the results were rejected from project use and flagged "R" unless professional judgment was used.

A high MS recovery indicates a potential positive bias to the associated sample data. The associated parent detected results were qualified as estimated and flagged "J." Nondetected parent results associated with a high bias recovery were not qualified.

If duplicate MS analyses are performed, an RPD greater than QC criteria may further indicate that the sample matrix is affecting the precision of the method for the target analyte that did not meet criteria. Therefore, the associated parent detected results were qualified as estimated and flagged "J," and nondetected results were qualified as estimated and flagged "UJ."

Table F4 lists all sample results affected by MS accuracy or precision exceedances, which are summarized as follows:

- The MS or MSD for several metals had a recovery greater than the UCL for 16 samples by EPA Method SW6010B. The associated detected parent sample results were qualified as estimated and flagged "J."
- The MS/MSD for several metals had a recovery less than the LCL for 42 samples by EPA Method SW6010B. The associated detected parent sample results were qualified as estimated and flagged "J," and nondetected results were qualified as estimated and flagged "UJ."
- Chromium, copper, lead, or zinc from one or more MS/MSD pairs exceeded the RPD acceptance criteria of 20% by EPA Method SW6010B. The associated detected parent sample results were qualified as estimated and flagged "J."
- The MSD for Cr(VI) had a recovery greater than the UCL for one sample by EPA Method SW7199. In addition, the RPD acceptance criterion of 20% as also exceeded. The associated detected parent sample result was qualified as estimated and flagged "J."
- The MS/MSD for Cr(VI) had a recovery less than the LCL for one sample by EPA Method SW7199. In addition, the RPD acceptance criterion of 20% as also exceeded. The associated detected parent sample result was qualified as estimated and flagged "J."
- The MSD for Cr(VI) had a recovery less than the LCL for one sample by EPA Method SW7199. The associated nondetected parent sample result was qualified as estimated and flagged "UJ."
- The MSD for mercury had a recovery greater than the UCL for two samples by EPA Method SW7141A. The associated detected parent sample results were qualified as estimated and flagged "J."
- The MS or MSD, or both, for 1,2,3,4,6,7,8-heptachlorodibenzo-p-dioxin or OCDF had a recovery greater than the UCL for two samples by EPA Method SW8290. The associated detected parent sample results were qualified as estimated and flagged "J."

3.7 Post-Digestion Spikes

A post-digestion spike (PDS) is a portion of the sample digestate fortified with a known quantity of a target analyte. The PDS is used to measure either positive or negative interferences that may distort the accuracy of the reported values in the native sample. Accuracy of the analytes should be within 75 to 125% of the known concentration added as specified in the QAPP. PDSs are only evaluated for metals analyses. When acceptance criteria were not met, detected sample results were qualified as estimated and flagged "J," and nondetected sample results were qualified as estimated and flagged "UJ."

Table F4 lists the sample results affected by PDS exceedances, which are summarized as follows:

- The PDS for lead or zinc had a recovery less than the LCL for one or more parent samples. A total of 30 detected sample results in the associated analytical batch were qualified as estimated and flagged "J."
- The PDS for mercury had a recovery greater than the UCL for one parent sample. Two detected sample results in the associated analytical batch were qualified as estimated and flagged "J."

3.8 Serial Dilution

A 1 to 5 serial dilution is performed on a portion of the sample digestate and analyzed. The serial dilution is used to measure either positive or negative interferences that may distort the precision of the reported values in the native sample. Precision is expressed in terms of the percent difference (%D) between the original sample and the serial dilution results. The %D should be less than 10% if the concentration of the analyte in the original sample is greater than 25 times the MDL as specified in the QAPP..

Serial dilutions are only evaluated for metals analyses. When acceptance criteria were not met, detected sample results were qualified as estimated and flagged "J," and nondetected sample results were qualified as estimated and flagged "UJ."

Table F4 lists the sample results affected by serial dilution exceedances, which are summarized as follows:

- The serial dilution for chromium or zinc from one or more parent samples exceeded the %D criteria of 10% by EPA Method SW6010B. A total of 47 detected sample results in the associated analytical batch were qualified as estimated and flagged "J."

3.9 Laboratory Duplicates

A laboratory duplicate is a separate sample aliquot subjected to the same preparation and analytical procedures as the native sample. Laboratory duplicates were analyzed to measure the precision of sample results reported as required by the analytical method. Precision is expressed in terms of the RPD between the native and laboratory duplicate sample results. The RPD criterion for laboratory duplicates is 20% as specified in the QAPP. When precision criteria were not met, detected sample results were qualified as estimated and flagged "J," and ad nondetected sample results were qualified as estimated and flagged "UJ."

Table F3 lists the sample results affected by laboratory duplicate precision, which are summarized as follows:

- Cr(VI) from one laboratory duplicate exceeded the RPD acceptance criterion of 20% by EPA Method SW7199. One detected native sample result was qualified as estimated and flagged "J."

3.10 Surrogates

Surrogates are primarily used in organic chromatography methods and are added before sample preparation. The surrogates are added to all samples, standards, and blanks in an analytical run and provide a measurement to determine recovery for every sample matrix. Surrogate compounds are chosen to represent the various chemistries of the target analytes in a specific method.

A low surrogate recovery indicates that the target analytes in associated samples are likely biased low. Associated detected sample results were qualified as estimated and flagged "J," and nondetected sample results were qualified as estimated and flagged "UJ."

Likewise, a high surrogate recovery indicates that the target analytes in associated samples are likely biased high. Associated detected results were qualified as estimated and flagged "J," and nondetected results associated with a high bias recovery were not qualified.

When the surrogate recoveries were less than 10%, the associated parent sample detected result was qualified as estimated and flagged "J," and the associated nondetected parent sample result was rejected from project use and flagged "R" unless professional judgment was used.

Table F5 lists the sample results affected by surrogate accuracy exceedances, which are summarized as follows:

- One or more D/F surrogate recoveries from 24 soil samples were less than the LCL by EPA Method SW8290. A total of 15 associated detected sample results were qualified as estimated and flagged "J," and 12 associated nondetected sample results were qualified as estimated and flagged "UJ."

3.11 Internal Standards

Internal standards have similar chemical characteristics to those of the analytes, and provide an analytical response that is distinct from the analyte and not normally subject to interference. The internal standards are added before analysis to determine analyte concentrations. The internal standard's response is referenced against a relative response factor, and the samples analyte concentration can be corrected for matrix effects.

Detected sample results exceeding the method-recommended acceptance criteria for internal standard recovery were qualified as estimated and flagged "J," and exceeding nondetected results were qualified as estimated and flagged "UJ."

Table F6 lists the sample results affected by internal standard recovery exceedances, which are summarized as follows:

- The recovery for one internal standard associated with 1,2,3,7,8-pentachlorodibenzofuran or p-dioxin was greater than the UCL in three samples by EPA Method SW8290. Two associated detected sample results were qualified as estimated and flagged "J," and three associated nondetected sample results were qualified as estimated and flagged "UJ."

3.12 Other

In accordance with EPA Method 8290 for D/F, individual isomers reported by the laboratory as estimated maximum possible concentrations (EMPC) were qualified as nondetects and flagged "U." A total of 565 sample results were qualified. In addition, a total of 260 sample results were qualified as nondetect and flagged "U" due to polychlorinated diphenyl ether interference.

3.13 Chain of Custody and Sample Receipt

Samples are collected under CoC to document sample integrity from the time of collection through receipt at the laboratory when the laboratory takes custody.

Each sample was documented on a completed CoC form and received by the laboratory courier in good condition. All discrepancies identified by the laboratory were promptly resolved.

4. Data Results

This section provides the final results of the DQE. The goal of this review is to demonstrate that enough representative samples were collected, and the resulting analytical data can be used to support the decision-making process. The procedures for assessing the precision, accuracy, representativeness, completeness, and comparability (PARCC) parameters are addressed in the QAPP and QAPP Addendum.

The PARCC findings for the events described in this DQE Report are as follows:

- Precision of the data was verified through the review of the field and laboratory data quality indicators that include:
 - FD
 - LCS/LCSD
 - MS/MSD
 - Serial dilution
 - Laboratory duplicate RPDs

Precision was generally acceptable, except for a number of analytical results that were qualified as estimated due to issues with the following:

- FDs
- MSs
- Serial dilution
- Laboratory duplicate RPDs

Overall, 261 results out of approximately 12,810 total results (approximately 2%) were qualified for precision exceptions.

- Accuracy of the data was verified through the review of the following indicators:
 - Calibration
 - Internal standards
 - EMPC
 - LCSs
 - MS/MSDs
 - PDSs
 - Surrogate standard recoveries
 - Method blanks and field blank data

Accuracy was generally acceptable, except for a number of analytical results being qualified as estimated detected and nondetected results due to issues with the following:

- Calibration
- Internal standards
- EMPCs
- LCSs
- MS/MSDs
- PDSs
- Surrogate standard recoveries

Overall, 443 results out of approximately 12,810 total results (approximately 3.5%) were qualified for accuracy exceptions. Analytical and field blank data were generally free of contamination, with some analytical results being qualified as nondetect. Overall, 537 results out of approximately 12,810 total results (approximately 4.2%) were qualified for blank contamination.

- Representativeness of the data was verified through the sample's collection, storage, and verification of HT compliance. There were no issues with sample collection or storage, and all data were reported from analyses within the EPA-recommended HTs.
- Comparability of the data was verified by using standard EPA analytical procedures and standard units for reporting. Results obtained are comparable to industry standards in that the collection and analytical techniques followed approved, documented procedures.
- Sensitivity is a measurement based on the analytical instrument method reporting limits (MRLs) determined by each subcontract laboratory. The analytical MRLs were determined based on the completion of instrument-specific MDL studies performed annually in accordance with the *Code of Federal Regulations*, Title 40, Part 136, Appendix B (EPA 2017). The MRLs are generally established by multiplying the MDL by a factor of 3 to 5, as recommended by generally accepted laboratory practice, and is further supported by the lowest-level analytical standard in the initial calibration process. Sensitivity is verified through compliance with the MRLs specified in the QAPP and QAPP Addendum. Any nondetect results reported by the laboratory or flagged nondetect due to blank contamination have been evaluated against the project screening levels, as discussed in the Soil NTCRA Work Plan (Jacobs 2022).
- Completeness is a measure of the number of valid measurements obtained in relation to the total number of measurements planned. Completeness is expressed as the percentage of valid or usable measurements compared to planned measurements. Valid data are defined as data that are not rejected for project use. The completeness goal of greater than 90% was met for all analytes and methods listed in Table F7.

Evaluation of 100% of the chemical data was performed by using the QAPP and QAPP Addendum as guides for DQE. The overall completeness was met, and no other systematic protocol errors were identified during the monitoring of the field or laboratory efforts. This, along with the PARCC evaluation, demonstrate that the overall quality of the analytical program and laboratory meet the project data quality objectives.

5. Data Management

Sampling activity logs and laboratory analytical data are maintained in a project database or in project files, as appropriate. Data were collected and include the items described in this section.

5.1 Field Data

Field data include the following information:

- Daily field progress reports
- Field worksheets
- Daily field notebooks
- Soil sample collection logs
- CoC reports

5.2 Laboratory Data

Laboratory data include the following information:

- Laboratory data packages grouped by SDG
- Corrective action reports
- Laboratory MDL studies
- Internal data evaluation reports for all data

Laboratory data were received in both portable document format (PDF) and in electronic comma-delimited American Standard Code for Information Interchange (ASCII) format. The receipt of both data types was logged into the sample-tracking program to determine completeness and laboratory turnaround-time compliance.

All DQE is done using a semi-automated data validation program that uses laboratory PDF and electronic data simultaneously. All validation flags and discoveries are entered into the project database and are linked directly to each individual data point. This process compares the PDF data to ASCII format electronic data for consistency. All data quality validation reports are generated from the electronic database.

The data management system was designed to maintain the usability and integrity of the data through a series of procedures and QC checks that began at the field site and are carried through to the generation of data for the user. These data included both the chemical data and field operation information. Both the chemical data and the field data were handled in a relational database.

The laboratory PDF report and electronic data are stored in the project files and project local area network hard drive areas in the Jacobs office in Redding, California. The original field data forms are stored in the Jacobs office in Oakland, California. Laboratories are required to archive the analytical data as described in the QAPP and QAPP Addendum.

6. References

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Tables

TABLE F1. Blank Contamination - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	Blank Contamination Qualifier*	Criteria	Comments
SW8290 (Soil)						
	1,2,3,4,6,7,8-Heptachlorodibenzofuran	AOC10TAA1-CF7-3	4.7 ng/Kg	U	LB<RL	blank target = 0.12ng/Kg
		AOC10TAA1-CW12-3	5 ng/Kg	U	LB<RL	blank target = 0.13ng/Kg
		AOC10TAA1-CW12-3FD	4.7 ng/Kg	U	LB<RL	blank target = 0.13ng/Kg
		AOC10TAA1-CW15-3	5 ng/Kg	U	LB<RL	blank target = 0.13ng/Kg
		AOC10TAA3-CW3-2	4.6 ng/Kg	U	LB<RL	blank target = 0.09ng/Kg
		AOC1TAA1-CF1a-7	570 ng/Kg	U	EB>RL	blank target = 5700pg/L
		AOC1TAA1-CW1a-5	1700 ng/Kg	U	EB>RL	blank target = 5700pg/L
		AOC1TAA1-CW2a-5	1200 ng/Kg	U	EB>RL	blank target = 5700pg/L
		AOC1TAA1-CW3a-5	2200 ng/Kg	U	EB>RL	blank target = 5700pg/L
		AOC1TAA1-CW4a-5	920 ng/Kg	U	EB>RL	blank target = 5700pg/L
		AOC1TAA2-CF1-10	4.9 ng/Kg	U	LB<RL	blank target = 0.74ng/Kg
		AOC1TAA2-CW2-5	5.7 ng/Kg	U	LB<RL	blank target = 0.74ng/Kg
		AOC27TAA1-CW2-3	4.9 ng/Kg	U	LB<RL	blank target = 0.7ng/Kg
		SWMU1TAA1-CW12-2	5.1 ng/Kg	U	LB<RL	blank target = 0.28ng/Kg
		SWMU1TAA1-CW21-6	5.2 ng/Kg	U	LB<RL	blank target = 0.74ng/Kg
		SWMU1TAA1-CW36-3FD	4.9 ng/Kg	U	LB<RL	blank target = 0.15ng/Kg
		SWMU1TAA1-CW38-4	4.8 ng/Kg	U	LB<RL	blank target = 0.15ng/Kg
		SWMU1TAA1-CW40-4	6.3 ng/Kg	U	LB<RL	blank target = 0.28ng/Kg
		SWMU1TAA2-CF1-4	4.9 ng/Kg	U	EB<RL	blank target = 2.3pg/L
		SWMU1TAA2-CW3-3	4.7 ng/Kg	U	EB<RL	blank target = 2.3pg/L
	1,2,3,4,6,7,8-Heptachlorodibenzo-p-di	AOC10TAA1-CF10-3	4.8 ng/Kg	U	EB<RL	blank target = 2pg/L
		AOC10TAA1-CF10-3	4.8 ng/Kg	U	LB<RL	blank target = 0.14ng/Kg
		AOC1TAA1-CF1a-7	1800 ng/Kg	U	EB>RL	blank target = 4900pg/L
		AOC27TAA1-CW2-3	11 ng/Kg	U	EB<RL	blank target = 36pg/L
		LowerSpy-PS10b-2024	4.1 ng/Kg	U	EB<RL	blank target = 2.6pg/L
		LowerSpy-PS10b-2024	4.1 ng/Kg	U	LB<RL	blank target = 0.12ng/Kg
	1,2,3,4,7,8,9-Heptachlorodibenzofuran	LowerSpy-PS22a-2024	0.4 ng/Kg	U	EB<RL	blank target = 1.7pg/L
		AOC1TAA1-CF1a-7	33 ng/Kg	U	EB>RL	blank target = 93pg/L
	1,2,3,4,7,8-Hexachlorodibenzofuran	AOC1TAA1-CW4a-5	46 ng/Kg	U	EB>RL	blank target = 93pg/L
		AOC10TAA2-CW21a-3	5 ng/Kg	U	LB<RL	blank target = 0.051ng/Kg
		AOC10TAA2-CW36-2	5 ng/Kg	U	LB<RL	blank target = 0.051ng/Kg
		AOC1TAA1-CF1a-7	9.9 ng/Kg	U	EB>RL	blank target = 56pg/L
		AOC27TAA1-CF1-5	5.3 ng/Kg	U	LB<RL	blank target = 0.28ng/Kg

TABLE F1. Blank Contamination - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	Blank Contamination Qualifier*	Criteria	Comments
SW8290 (Soil)						
1,2,3,4,7,8-Hexachlorodibenzofuran		AOC27TAA1-CW2-3	4.9 ng/Kg	U	LB<RL	blank target = 0.28ng/Kg
		AOC27TAA1-CW3-4	5 ng/Kg	U	LB<RL	blank target = 0.28ng/Kg
		LowerSpy-PS19-2024	3.9 ng/Kg	U	LB<RL	blank target = 0.081ng/Kg
		LowerSpy-PS19-2024FD	3.5 ng/Kg	U	LB<RL	blank target = 0.081ng/Kg
		LowerSpy-PS20-2024	2.9 ng/Kg	U	LB<RL	blank target = 0.081ng/Kg
		SWMU1TAA1-CF2-10	0.25 ng/Kg	U	LB<RL	blank target = 0.14ng/Kg
		SWMU1TAA1-CF3-10	13 ng/Kg	U	LB<RL	blank target = 0.14ng/Kg
		SWMU1TAA1-CW27-FD	4.7 ng/Kg	U	LB<RL	blank target = 0.08ng/Kg
		SWMU1TAA1-CW5-5	0.25 ng/Kg	U	LB<RL	blank target = 0.14ng/Kg
		UpperSpy-PS7R-2024	0.37 ng/Kg	U	EB<RL	blank target = 1.2pg/L
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxi		AOC10TAA1-CF10-3	4.8 ng/Kg	U	EB<RL	blank target = 3.7pg/L
		AOC10TAA1-CF10-3	4.8 ng/Kg	U	LB<RL	blank target = 0.17ng/Kg
		AOC10TAA1-CW11-2.5	4.9 ng/Kg	U	EB<RL	blank target = 3.7pg/L
		AOC10TAA1-CW11-2.5	4.9 ng/Kg	U	LB<RL	blank target = 0.17ng/Kg
		AOC10TAA1-CW1-2	4.8 ng/Kg	U	LB<RL	blank target = 0.24ng/Kg
		AOC10TAA1-CW12-3	5 ng/Kg	U	EB<RL	blank target = 2pg/L
		AOC10TAA1-CW12-3	5 ng/Kg	U	LB<RL	blank target = 0.17ng/Kg
		AOC10TAA1-CW12-3FD	4.7 ng/Kg	U	EB<RL	blank target = 2pg/L
		AOC10TAA1-CW12-3FD	4.7 ng/Kg	U	LB<RL	blank target = 0.17ng/Kg
		AOC10TAA1-CW15-3	5 ng/Kg	U	EB<RL	blank target = 1.7pg/L
		AOC10TAA1-CW15-3	5 ng/Kg	U	LB<RL	blank target = 0.17ng/Kg
		AOC10TAA1-CW2-2	4.9 ng/Kg	U	LB<RL	blank target = 0.24ng/Kg
		AOC10TAA2-CF17-6	5.1 ng/Kg	U	LB<RL	blank target = 0.17ng/Kg
		AOC10TAA2-CF19-5	4.4 ng/Kg	U	LB<RL	blank target = 0.11ng/Kg
		AOC10TAA2-CF21-5	4.6 ng/Kg	U	LB<RL	blank target = 0.14ng/Kg
		AOC10TAA2-CW16a-4	5.1 ng/Kg	U	LB<RL	blank target = 0.2ng/Kg
		AOC10TAA2-CW16a-FD-4	5.3 ng/Kg	U	LB<RL	blank target = 0.2ng/Kg
		AOC10TAA2-CW21a-3	5 ng/Kg	U	LB<RL	blank target = 0.11ng/Kg
		AOC10TAA2-CW25a-3	5.1 ng/Kg	U	LB<RL	blank target = 0.18ng/Kg
		AOC10TAA2-CW26a-2	4.5 ng/Kg	U	LB<RL	blank target = 0.23ng/Kg
AOC10TAA2-CW35-3FD	5.1 ng/Kg	U	LB<RL	blank target = 0.11ng/Kg		
AOC10TAA2-CW39-2	4.9 ng/Kg	U	LB<RL	blank target = 0.14ng/Kg		
AOC10TAA3-CF1-2	4.3 ng/Kg	U	LB<RL	blank target = 0.24ng/Kg		

TABLE F1. Blank Contamination - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	Blank Contamination Qualifier*	Criteria	Comments
SW8290 (Soil)						
	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxi	AOC10TAA3-CW2-2	4.3 ng/Kg	U	LB<RL	blank target = 0.24ng/Kg
		AOC10TAA3-CW3-2	4.6 ng/Kg	U	LB<RL	blank target = 0.24ng/Kg
		AOC10TAA4-CF4-3	4.9 ng/Kg	U	LB<RL	blank target = 0.18ng/Kg
		AOC10TAA4-CW12b-1	4.9 ng/Kg	U	LB<RL	blank target = 0.14ng/Kg
		AOC10TAA4-CW12b-1FD	4.9 ng/Kg	U	LB<RL	blank target = 0.14ng/Kg
		AOC10TAA4-CW17a-1	4.8 ng/Kg	U	LB<RL	blank target = 0.14ng/Kg
		AOC14TAA1-CF1-6	5 ng/Kg	U	LB<RL	blank target = 0.17ng/Kg
		AOC14TAA1-CF1a-10	5.2 ng/Kg	U	EB<RL	blank target = 2.5pg/L
		AOC14TAA1-CF1a-10	5.2 ng/Kg	U	LB<RL	blank target = 0.33ng/Kg
		AOC14TAA1-CF4-6	5.2 ng/Kg	U	LB<RL	blank target = 0.22ng/Kg
		AOC14TAA1-CW10-5	0.75 ng/Kg	U	EB<RL	blank target = 2.1pg/L
		AOC14TAA1-CW1-2	5.3 ng/Kg	U	LB<RL	blank target = 0.17ng/Kg
		AOC14TAA1-CW12-5	0.17 ng/Kg	U	EB<RL	blank target = 2.1pg/L
		AOC14TAA1-CW1a-1	4.9 ng/Kg	U	EB<RL	blank target = 2.5pg/L
		AOC14TAA1-CW1a-1	4.9 ng/Kg	U	LB<RL	blank target = 0.33ng/Kg
		AOC14TAA1-CW2-4	4.9 ng/Kg	U	LB<RL	blank target = 0.17ng/Kg
		AOC16TAA1-CF1-1	5.1 ng/Kg	U	LB<RL	blank target = 0.32ng/Kg
		AOC16TAA1-CW1a-0.5	5 ng/Kg	U	EB<RL	blank target = 2.6pg/L
		AOC16TAA1-CW2-0.5	4.9 ng/Kg	U	LB<RL	blank target = 0.32ng/Kg
		AOC16TAA1-CW3-0.5	4.2 ng/Kg	U	LB<RL	blank target = 0.32ng/Kg
		AOC16TAA1-CW4-0.5	4.3 ng/Kg	U	LB<RL	blank target = 0.32ng/Kg
		AOC1TAA2-CF1-10	4.9 ng/Kg	U	LB<RL	blank target = 0.15ng/Kg
		AOC1TAA2-CW2-5	5.7 ng/Kg	U	LB<RL	blank target = 0.15ng/Kg
		LowerSpy-PS10b-2024	4.1 ng/Kg	U	EB<RL	blank target = 1.3pg/L
		LowerSpy-PS10b-2024	4.1 ng/Kg	U	LB<RL	blank target = 0.13ng/Kg
		LowerSpy-PS11a-2024	3.3 ng/Kg	U	LB<RL	blank target = 0.14ng/Kg
		LowerSpy-PS14a-2024	4.5 ng/Kg	U	LB<RL	blank target = 0.14ng/Kg
		LowerSpy-PS15a-2024	4.3 ng/Kg	U	LB<RL	blank target = 0.14ng/Kg
		LowerSpy-PS17-2024	4 ng/Kg	U	LB<RL	blank target = 0.27ng/Kg
		LowerSpy-PS18-2024	3.6 ng/Kg	U	EB<RL	blank target = 1.4pg/L
		LowerSpy-PS18-2024	3.6 ng/Kg	U	LB<RL	blank target = 0.18ng/Kg
		LowerSpy-PS19-2024	3.9 ng/Kg	U	EB<RL	blank target = 1.4pg/L
		LowerSpy-PS19-2024	3.9 ng/Kg	U	LB<RL	blank target = 0.18ng/Kg

TABLE F1. Blank Contamination - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	Blank Contamination Qualifier*	Criteria	Comments
SW8290 (Soil)						
	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	LowerSpy-PS19-2024FD	3.5 ng/Kg	U	EB<RL	blank target = 1.4pg/L
		LowerSpy-PS19-2024FD	3.5 ng/Kg	U	LB<RL	blank target = 0.18ng/Kg
		LowerSpy-PS20-2024	2.9 ng/Kg	U	EB<RL	blank target = 1.4pg/L
		LowerSpy-PS20-2024	2.9 ng/Kg	U	LB<RL	blank target = 0.18ng/Kg
		LowerSpy-PS21-2024	4.3 ng/Kg	U	LB<RL	blank target = 0.27ng/Kg
		LowerSpy-PS2-2024	4.9 ng/Kg	U	LB<RL	blank target = 0.14ng/Kg
		LowerSpy-PS3a-2024	4.1 ng/Kg	U	EB<RL	blank target = 1.3pg/L
		LowerSpy-PS3a-2024	4.1 ng/Kg	U	LB<RL	blank target = 0.13ng/Kg
		LowerSpy-PS3a-2024FD	3.7 ng/Kg	U	EB<RL	blank target = 1.3pg/L
		LowerSpy-PS3a-2024FD	3.7 ng/Kg	U	LB<RL	blank target = 0.13ng/Kg
		LowerSpy-PS4-2024	0.42 ng/Kg	U	EB<RL	blank target = 1.4pg/L
		LowerSpy-PS6Nb-2024	4.4 ng/Kg	U	EB<RL	blank target = 1.3pg/L
		LowerSpy-PS6Nb-2024	4.4 ng/Kg	U	LB<RL	blank target = 0.13ng/Kg
		LowerSpy-PS6Sb-2024	4.1 ng/Kg	U	LB<RL	blank target = 0.22ng/Kg
		LowerSpy-PS8a-2024	0.22 ng/Kg	U	EB<RL	blank target = 1.4pg/L
		LowerSpy-PS8a-2024FD	0.19 ng/Kg	U	EB<RL	blank target = 1.4pg/L
		LowerSpy-PS9a-2024	0.23 ng/Kg	U	EB<RL	blank target = 1.4pg/L
		SWMU1TAA1-CF10a-7	5 ng/Kg	U	LB<RL	blank target = 0.17ng/Kg
		SWMU1TAA1-CF1-10	0.39 ng/Kg	U	LB<RL	blank target = 0.2ng/Kg
		SWMU1TAA1-CF11-10	4.2 ng/Kg	U	LB<RL	blank target = 0.3ng/Kg
		SWMU1TAA1-CF12-10	4.2 ng/Kg	U	LB<RL	blank target = 0.3ng/Kg
		SWMU1TAA1-CF12-10FD	4.3 ng/Kg	U	LB<RL	blank target = 0.3ng/Kg
		SWMU1TAA1-CF20-10	4.5 ng/Kg	U	LB<RL	blank target = 0.18ng/Kg
		SWMU1TAA1-CF2-10	0.4 ng/Kg	U	LB<RL	blank target = 0.2ng/Kg
		SWMU1TAA1-CF21-5	4.8 ng/Kg	U	LB<RL	blank target = 0.19ng/Kg
		SWMU1TAA1-CF22-10	5.2 ng/Kg	U	EB<RL	blank target = 1.8pg/L
		SWMU1TAA1-CF3-10	11 ng/Kg	U	LB<RL	blank target = 0.2ng/Kg
		SWMU1TAA1-CW10a-2	5 ng/Kg	U	LB<RL	blank target = 0.17ng/Kg
		SWMU1TAA1-CW13-4	5.4 ng/Kg	U	LB<RL	blank target = 0.17ng/Kg
		SWMU1TAA1-CW14-5	5.3 ng/Kg	U	LB<RL	blank target = 0.17ng/Kg
		SWMU1TAA1-CW1-5	0.12 ng/Kg	U	LB<RL	blank target = 0.2ng/Kg
		SWMU1TAA1-CW15-2	5.1 ng/Kg	U	LB<RL	blank target = 0.17ng/Kg
		SWMU1TAA1-CW1-5FD	0.11 ng/Kg	U	LB<RL	blank target = 0.2ng/Kg

TABLE F1. Blank Contamination - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	Blank Contamination Qualifier*	Criteria	Comments
SW8290 (Soil)						
	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxi	SWMU1TAA1-CW16-5	4.2 ng/Kg	U	LB<RL	blank target = 0.3ng/Kg
		SWMU1TAA1-CW17-5	4.4 ng/Kg	U	EB<RL	blank target = 2.3pg/L
		SWMU1TAA1-CW17-5	4.4 ng/Kg	U	LB<RL	blank target = 0.24ng/Kg
		SWMU1TAA1-CW21-6	5.2 ng/Kg	U	LB<RL	blank target = 0.15ng/Kg
		SWMU1TAA1-CW22-6	5.3 ng/Kg	U	LB<RL	blank target = 0.21ng/Kg
		SWMU1TAA1-CW33-4	5 ng/Kg	U	LB<RL	blank target = 0.19ng/Kg
		SWMU1TAA1-CW36-3FD	4.9 ng/Kg	U	EB<RL	blank target = 1.8pg/L
		SWMU1TAA1-CW36-3FD	4.9 ng/Kg	U	LB<RL	blank target = 0.13ng/Kg
		SWMU1TAA1-CW37-3	4.7 ng/Kg	U	EB<RL	blank target = 1.8pg/L
		SWMU1TAA1-CW37-3	4.7 ng/Kg	U	LB<RL	blank target = 0.13ng/Kg
		SWMU1TAA1-CW38-4	4.8 ng/Kg	U	EB<RL	blank target = 1.8pg/L
		SWMU1TAA1-CW38-4	4.8 ng/Kg	U	LB<RL	blank target = 0.13ng/Kg
		SWMU1TAA1-CW39-4	4.7 ng/Kg	U	EB<RL	blank target = 1.8pg/L
		SWMU1TAA1-CW39-4	4.7 ng/Kg	U	LB<RL	blank target = 0.13ng/Kg
		SWMU1TAA1-CW3a-5	5 ng/Kg	U	LB<RL	blank target = 0.3ng/Kg
		SWMU1TAA1-CW4-5	0.21 ng/Kg	U	LB<RL	blank target = 0.2ng/Kg
		SWMU1TAA1-CW5-5	0.28 ng/Kg	U	LB<RL	blank target = 0.2ng/Kg
		SWMU1TAA2-CF3-4	4.9 ng/Kg	U	LB<RL	blank target = 0.12ng/Kg
		SWMU1TAA2-CW2-3	4.8 ng/Kg	U	EB<RL	blank target = 2.2pg/L
		SWMU1TAA2-CW4-1.5	5.1 ng/Kg	U	LB<RL	blank target = 0.12ng/Kg
		SWMU1TAA2-CW4-1.5FD	5 ng/Kg	U	LB<RL	blank target = 0.12ng/Kg
		SWMU1TAA2-CW5-3	5.3 ng/Kg	U	LB<RL	blank target = 0.12ng/Kg
		SWMU1TAA2-CW6-1.5	5.1 ng/Kg	U	LB<RL	blank target = 0.12ng/Kg
		SWMU1TAA2-CW6-FD-1.5	5.1 ng/Kg	U	LB<RL	blank target = 0.12ng/Kg
		SWMU1TAA2-CW7-3	5 ng/Kg	U	EB<RL	blank target = 1.8pg/L
		SWMU1TAA2-CW7-3	5 ng/Kg	U	LB<RL	blank target = 0.12ng/Kg
		SWMU1TAA2-CW8-3	5.1 ng/Kg	U	EB<RL	blank target = 1.8pg/L
		SWMU1TAA2-CW8-3	5.1 ng/Kg	U	LB<RL	blank target = 0.12ng/Kg
		SWMU1TAA3-CW5-2	5 ng/Kg	U	EB<RL	blank target = 1.6pg/L
		SWMU1TAA3-CW5-2	5 ng/Kg	U	LB<RL	blank target = 0.12ng/Kg
		UpperSpy-PS1-2024	3.8 ng/Kg	U	LB<RL	blank target = 0.27ng/Kg
		UpperSpy-PS2-2024	4.3 ng/Kg	U	LB<RL	blank target = 0.27ng/Kg
		UpperSpy-PS3-2024	3.6 ng/Kg	U	EB<RL	blank target = 1.4pg/L

TABLE F1. Blank Contamination - Qualified Data

Method (Matrix)		Result	Blank Contamination Qualifier*	Criteria	Comments
Analyte	Sample Identification				
SW8290 (Soil)					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxi	UpperSpy-PS3-2024	3.6 ng/Kg	U	LB<RL	blank target = 0.27ng/Kg
	UpperSpy-PS3-2024FD	4 ng/Kg	U	EB<RL	blank target = 1.4pg/L
	UpperSpy-PS3-2024FD	4 ng/Kg	U	LB<RL	blank target = 0.27ng/Kg
	UpperSpy-PS5-2024	3.6 ng/Kg	U	EB<RL	blank target = 1.4pg/L
	UpperSpy-PS5-2024	3.6 ng/Kg	U	LB<RL	blank target = 0.27ng/Kg
	UpperSpy-PS6-2024	4.2 ng/Kg	U	LB<RL	blank target = 0.27ng/Kg
	UpperSpy-PS7-2024	3.9 ng/Kg	U	LB<RL	blank target = 0.27ng/Kg
	UpperSpy-PS7R-2024	0.35 ng/Kg	U	EB<RL	blank target = 2.2pg/L
1,2,3,6,7,8-Hexachlorodibenzofuran	AOC10TAA1-CW1-2	4.8 ng/Kg	U	LB<RL	blank target = 0.11ng/Kg
	AOC10TAA1-CW2-2	4.9 ng/Kg	U	LB<RL	blank target = 0.11ng/Kg
	AOC16TAA1-CF1-1	5.1 ng/Kg	U	LB<RL	blank target = 0.32ng/Kg
	AOC16TAA1-CW2-0.5	4.9 ng/Kg	U	LB<RL	blank target = 0.32ng/Kg
	AOC16TAA1-CW4-0.5	4.3 ng/Kg	U	LB<RL	blank target = 0.32ng/Kg
	AOC27TAA1-CW1-3	0.46 ng/Kg	U	EB<RL	blank target = 1.4pg/L
	AOC27TAA1-CW1-3FD	0.37 ng/Kg	U	EB<RL	blank target = 1.4pg/L
	AOC27TAA1-CW2-3	4.9 ng/Kg	U	EB<RL	blank target = 1.4pg/L
	AOC27TAA1-CW2-3	4.9 ng/Kg	U	LB<RL	blank target = 0.21ng/Kg
	AOC27TAA1-CW3-4	5 ng/Kg	U	EB<RL	blank target = 1.4pg/L
	AOC27TAA1-CW3-4	5 ng/Kg	U	LB<RL	blank target = 0.21ng/Kg
	AOC27TAA1-CW4-1.5	5.2 ng/Kg	U	LB<RL	blank target = 0.21ng/Kg
	LowerSpy-PS19-2024	3.9 ng/Kg	U	LB<RL	blank target = 0.055ng/Kg
	LowerSpy-PS19-2024FD	3.5 ng/Kg	U	LB<RL	blank target = 0.055ng/Kg
	LowerSpy-PS20-2024	2.9 ng/Kg	U	LB<RL	blank target = 0.055ng/Kg
	SWMU1TAA1-CW22-6	0.62 ng/Kg	U	EB<RL	blank target = 5.8pg/L
UpperSpy-PS7R-2024	0.28 ng/Kg	U	EB<RL	blank target = 0.75pg/L	
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxi	AOC10TAA1-CW11-2.5	0.13 ng/Kg	U	EB<RL	blank target = 1.6pg/L
	AOC1TAA1-CF1a-7	41 ng/Kg	U	EB>RL	blank target = 160pg/L
	AOC27TAA1-CW2-3	0.57 ng/Kg	U	EB<RL	blank target = 4.1pg/L
1,2,3,7,8,9-Hexachlorodibenzofuran	AOC27TAA1-CW4-1.5	1.7 ng/Kg	U	EB<RL	blank target = 4.1pg/L
	AOC10TAA1-CF10-3	4.8 ng/Kg	U	EB<RL	blank target = 3.8pg/L
	AOC10TAA1-CF10-3	4.8 ng/Kg	U	LB<RL	blank target = 0.14ng/Kg
	AOC10TAA1-CF11-4	5.1 ng/Kg	U	LB<RL	blank target = 0.14ng/Kg
	AOC10TAA1-CF12-5	4.8 ng/Kg	U	LB<RL	blank target = 0.14ng/Kg

TABLE F1. Blank Contamination - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	Blank Contamination Qualifier*	Criteria	Comments
SW8290 (Soil)						
	1,2,3,7,8,9-Hexachlorodibenzofuran	AOC10TAA1-CW1-2	4.8 ng/Kg	U	LB<RL	blank target = 0.29ng/Kg
		AOC10TAA1-CW12-3	5 ng/Kg	U	LB<RL	blank target = 0.14ng/Kg
		AOC10TAA1-CW12-3FD	4.7 ng/Kg	U	LB<RL	blank target = 0.14ng/Kg
		AOC10TAA1-CW15-3	5 ng/Kg	U	EB<RL	blank target = 0.86pg/L
		AOC10TAA1-CW15-3	5 ng/Kg	U	LB<RL	blank target = 0.14ng/Kg
		AOC10TAA1-CW2-2	4.9 ng/Kg	U	LB<RL	blank target = 0.29ng/Kg
		AOC10TAA2-CF15a-1	4.4 ng/Kg	U	LB<RL	blank target = 0.26ng/Kg
		AOC10TAA2-CF24-0	4.4 ng/Kg	U	LB<RL	blank target = 0.26ng/Kg
		AOC10TAA2-CF7a-1	4.4 ng/Kg	U	LB<RL	blank target = 0.26ng/Kg
		AOC10TAA2-CW25a-3	5.1 ng/Kg	U	LB<RL	blank target = 0.13ng/Kg
		AOC10TAA2-CW33-2	4.9 ng/Kg	U	LB<RL	blank target = 0.13ng/Kg
		AOC10TAA2-CW33-2FD	5 ng/Kg	U	LB<RL	blank target = 0.13ng/Kg
		AOC10TAA3-CF1-2	4.3 ng/Kg	U	LB<RL	blank target = 0.086ng/Kg
		AOC10TAA3-CW2-2	4.3 ng/Kg	U	LB<RL	blank target = 0.086ng/Kg
		AOC10TAA3-CW3-2	4.6 ng/Kg	U	LB<RL	blank target = 0.086ng/Kg
		AOC10TAA4-CF5-0	4.7 ng/Kg	U	LB<RL	blank target = 0.11ng/Kg
		AOC14TAA1-CF1-6	5 ng/Kg	U	LB<RL	blank target = 0.11ng/Kg
		AOC14TAA1-CW11-3	5 ng/Kg	U	LB<RL	blank target = 0.28ng/Kg
		AOC14TAA1-CW11-FD3	4.8 ng/Kg	U	LB<RL	blank target = 0.28ng/Kg
		AOC14TAA1-CW1-2	5.3 ng/Kg	U	LB<RL	blank target = 0.11ng/Kg
		AOC14TAA1-CW2-4	4.9 ng/Kg	U	LB<RL	blank target = 0.11ng/Kg
		AOC14TAA1-CW3-4	5 ng/Kg	U	LB<RL	blank target = 0.11ng/Kg
		AOC14TAA1-CW4-4	4.9 ng/Kg	U	LB<RL	blank target = 0.11ng/Kg
		AOC14TAA1-CW5-5	4.8 ng/Kg	U	LB<RL	blank target = 0.27ng/Kg
		AOC14TAA1-CW6-5	4.9 ng/Kg	U	LB<RL	blank target = 0.27ng/Kg
		AOC27TAA1-CF1-5	0.42 ng/Kg	U	EB<RL	blank target = 2.1pg/L
		AOC27TAA1-CW1-3	0.28 ng/Kg	U	EB<RL	blank target = 2.1pg/L
		AOC27TAA1-CW1-3FD	0.38 ng/Kg	U	EB<RL	blank target = 2.1pg/L
		LowerSpy-PS17-2024	0.32 ng/Kg	U	EB<RL	blank target = 0.68pg/L
		LowerSpy-PS18-2024	3.6 ng/Kg	U	EB<RL	blank target = 0.74pg/L
		LowerSpy-PS18-2024	3.6 ng/Kg	U	LB<RL	blank target = 0.25ng/Kg
		LowerSpy-PS19-2024FD	3.5 ng/Kg	U	EB<RL	blank target = 0.74pg/L
		LowerSpy-PS19-2024FD	3.5 ng/Kg	U	LB<RL	blank target = 0.25ng/Kg

TABLE F1. Blank Contamination - Qualified Data

Method (Matrix)		Result	Blank Contamination Qualifier*	Criteria	Comments
Analyte	Sample Identification				
SW8290 (Soil)					
1,2,3,7,8,9-Hexachlorodibenzofuran	LowerSpy-PS20-2024	2.9 ng/Kg	U	EB<RL	blank target = 0.74pg/L
	LowerSpy-PS20-2024	2.9 ng/Kg	U	LB<RL	blank target = 0.25ng/Kg
	LowerSpy-PS3a-2024	4.1 ng/Kg	U	EB<RL	blank target = 0.66pg/L
	LowerSpy-PS3a-2024	4.1 ng/Kg	U	LB<RL	blank target = 0.073ng/Kg
	SWMU1TAA1-CF11-10	4.2 ng/Kg	U	LB<RL	blank target = 0.14ng/Kg
	SWMU1TAA1-CF12-10	4.2 ng/Kg	U	LB<RL	blank target = 0.14ng/Kg
	SWMU1TAA1-CF12-10FD	4.3 ng/Kg	U	LB<RL	blank target = 0.14ng/Kg
	SWMU1TAA1-CF19-10	4.8 ng/Kg	U	EB<RL	blank target = 3.5pg/L
	SWMU1TAA1-CW10a-2	5 ng/Kg	U	LB<RL	blank target = 0.11ng/Kg
	SWMU1TAA1-CW14-5	5.3 ng/Kg	U	LB<RL	blank target = 0.11ng/Kg
	SWMU1TAA1-CW15-2	5.1 ng/Kg	U	LB<RL	blank target = 0.11ng/Kg
	SWMU1TAA1-CW16-5	4.2 ng/Kg	U	LB<RL	blank target = 0.14ng/Kg
	SWMU1TAA1-CW27-FD	4.7 ng/Kg	U	LB<RL	blank target = 0.089ng/Kg
	SWMU1TAA1-CW28-5	4.6 ng/Kg	U	LB<RL	blank target = 0.089ng/Kg
	SWMU1TAA1-CW33-4	5 ng/Kg	U	LB<RL	blank target = 0.14ng/Kg
	SWMU1TAA1-CW34-4	5.2 ng/Kg	U	LB<RL	blank target = 0.14ng/Kg
	SWMU1TAA1-CW3a-5	5 ng/Kg	U	LB<RL	blank target = 0.14ng/Kg
	SWMU1TAA2-CW4-1.5	5.1 ng/Kg	U	LB<RL	blank target = 0.14ng/Kg
	SWMU1TAA2-CW4-1.5FD	5 ng/Kg	U	LB<RL	blank target = 0.14ng/Kg
	SWMU1TAA2-CW5-3	5.3 ng/Kg	U	LB<RL	blank target = 0.14ng/Kg
	SWMU1TAA2-CW6-1.5	5.1 ng/Kg	U	LB<RL	blank target = 0.14ng/Kg
	SWMU1TAA2-CW6-FD-1.5	5.1 ng/Kg	U	LB<RL	blank target = 0.14ng/Kg
	SWMU1TAA2-CW7-3	5 ng/Kg	U	LB<RL	blank target = 0.14ng/Kg
SWMU1TAA3-CW4a-1.5	5 ng/Kg	U	LB<RL	blank target = 0.28ng/Kg	
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxi	AOC10TAA1-CW11-2.5	0.061 ng/Kg	U	EB<RL	blank target = 2.2pg/L
	AOC14TAA1-CF4-6	5.2 ng/Kg	U	LB<RL	blank target = 0.14ng/Kg
	AOC1TAA1-CF1a-7	15 ng/Kg	U	EB<RL	blank target = 46pg/L
	LowerSpy-PS19-2024	3.9 ng/Kg	U	LB<RL	blank target = 0.083ng/Kg
	LowerSpy-PS19-2024FD	3.5 ng/Kg	U	LB<RL	blank target = 0.083ng/Kg
1,2,3,7,8-Pentachlorodibenzofuran	LowerSpy-PS20-2024	2.9 ng/Kg	U	LB<RL	blank target = 0.083ng/Kg
	AOC1TAA2-CF1-10	0.63 ng/Kg	U	EB<RL	blank target = 2.3pg/L
	AOC1TAA2-CW11-4	4.9 ng/Kg	U	EB<RL	blank target = 0.89pg/L
	AOC1TAA2-CW2-5	0.34 ng/Kg	U	EB<RL	blank target = 2.3pg/L

TABLE F1. Blank Contamination - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	Blank Contamination Qualifier*	Criteria	Comments
SW8290 (Soil)						
1,2,3,7,8-Pentachlorodibenzofuran		LowerSpy-PS17-2024	0.15 ng/Kg	U	EB<RL	blank target = 1.1pg/L
		LowerSpy-PS22-2024	0.28 ng/Kg	U	EB<RL	blank target = 1.1pg/L
		SWMU1TAA1-CW19-5	0.24 ng/Kg	U	EB<RL	blank target = 0.67pg/L
		SWMU1TAA1-CW21-6	0.54 ng/Kg	U	EB<RL	blank target = 2.3pg/L
		SWMU1TAA2-CW2-3	4.8 ng/Kg	U	EB<RL	blank target = 0.87pg/L
		SWMU1TAA2-CW3-3	4.7 ng/Kg	U	EB<RL	blank target = 0.87pg/L
		SWMU1TAA3-CW3-2	4.8 ng/Kg	U	EB<RL	blank target = 0.89pg/L
		UpperSpy-PS6-2024	0.39 ng/Kg	U	EB<RL	blank target = 1.1pg/L
		UpperSpy-PS7-2024	0.28 ng/Kg	U	EB<RL	blank target = 1.1pg/L
1,2,3,7,8-Pentachlorodibenzo-p-dioxin		AOC10TAA3-CF1-2	4.3 ng/Kg	U	LB<RL	blank target = 0.038ng/Kg
		AOC10TAA3-CW2-2	4.3 ng/Kg	U	LB<RL	blank target = 0.038ng/Kg
		UpperSpy-PS7R-2024	0.31 ng/Kg	U	EB<RL	blank target = 0.65pg/L
2,3,4,6,7,8-Hexachlorodibenzofuran		AOC10TAA1-CW11-2.5	0.061 ng/Kg	U	EB<RL	blank target = 1.4pg/L
2,3,4,7,8-Pentachlorodibenzofuran		AOC10TAA1-CW2-2	4.9 ng/Kg	U	LB<RL	blank target = 0.089ng/Kg
		AOC14TAA1-CW1a-1	4.9 ng/Kg	U	EB<RL	blank target = 0.56pg/L
		SWMU1TAA2-CF2-4	4.7 ng/Kg	U	EB<RL	blank target = 0.8pg/L
2,3,7,8-Tetrachlorodibenzofuran		AOC10TAA1-CF11-4	1 ng/Kg	U	LB<RL	blank target = 0.083ng/Kg
		AOC10TAA1-CF6-3FD	1 ng/Kg	U	LB<RL	blank target = 0.36ng/Kg
		AOC10TAA1-CW10-1	1.1 ng/Kg	U	LB<RL	blank target = 0.36ng/Kg
		AOC10TAA1-CW12-3FD	0.95 ng/Kg	U	LB<RL	blank target = 0.083ng/Kg
		AOC10TAA1-CW15-3	1 ng/Kg	U	LB<RL	blank target = 0.083ng/Kg
		AOC10TAA3-CF1-2	0.86 ng/Kg	U	LB<RL	blank target = 0.043ng/Kg
		AOC10TAA3-CW2-2	0.86 ng/Kg	U	LB<RL	blank target = 0.043ng/Kg
		AOC10TAA3-CW3-2	0.92 ng/Kg	U	LB<RL	blank target = 0.043ng/Kg
		AOC14TAA1-CW10-5	0.85 ng/Kg	U	LB<RL	blank target = 0.32ng/Kg
		AOC1TAA2-CW6b-6	0.99 ng/Kg	U	LB<RL	blank target = 0.28ng/Kg
		AOC27TAA1-CW3-4	0.99 ng/Kg	U	LB<RL	blank target = 0.13ng/Kg
		AOC27TAA1-CW4-1.5	1 ng/Kg	U	LB<RL	blank target = 0.13ng/Kg
		SWMU1TAA1-CF13-10	0.84 ng/Kg	U	LB<RL	blank target = 0.098ng/Kg
		SWMU1TAA1-CF16-10	0.27 ng/Kg	U	EB<RL	blank target = 0.58pg/L
		SWMU1TAA1-CF22-10	1 ng/Kg	U	LB<RL	blank target = 0.11ng/Kg
	SWMU1TAA1-CW17-5	0.88 ng/Kg	U	LB<RL	blank target = 0.098ng/Kg	

TABLE F1. Blank Contamination - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	Blank Contamination Qualifier*	Criteria	Comments
SW8290 (Soil)						
	2,3,7,8-Tetrachlorodibenzofuran	SWMU1TAA1-CW18-6	1 ng/Kg	U	LB<RL	blank target = 0.098ng/Kg
		SWMU1TAA1-CW19-5	1 ng/Kg	U	LB<RL	blank target = 0.098ng/Kg
		SWMU1TAA1-CW22-6	0.27 ng/Kg	U	EB<RL	blank target = 0.58pg/L
		SWMU1TAA1-CW26a-5	1 ng/Kg	U	LB<RL	blank target = 0.11ng/Kg
		SWMU1TAA1-CW35-5	1 ng/Kg	U	LB<RL	blank target = 0.11ng/Kg
		SWMU1TAA1-CW36-3	0.97 ng/Kg	U	LB<RL	blank target = 0.11ng/Kg
		SWMU1TAA1-CW36-3FD	0.98 ng/Kg	U	LB<RL	blank target = 0.11ng/Kg
		SWMU1TAA1-CW37-3	0.93 ng/Kg	U	LB<RL	blank target = 0.11ng/Kg
		SWMU1TAA1-CW38-4	0.96 ng/Kg	U	LB<RL	blank target = 0.11ng/Kg
		SWMU1TAA1-CW39-4	0.95 ng/Kg	U	LB<RL	blank target = 0.11ng/Kg
	OCDD	AOC10TAA1-CF10-3	9.6 ng/Kg	U	EB<RL	blank target = 12pg/L
		AOC10TAA1-CF10-3	9.6 ng/Kg	U	LB<RL	blank target = 2.4ng/Kg
		LowerSpy-PS10b-2024	5.8 ng/Kg	U	EB<RL	blank target = 13pg/L
	OCDF	AOC10TAA1-CF10-3	9.6 ng/Kg	U	EB<RL	blank target = 3.1pg/L
		AOC10TAA1-CF10-3	9.6 ng/Kg	U	LB<RL	blank target = 0.4ng/Kg
		AOC10TAA1-CW12-3	10 ng/Kg	U	LB<RL	blank target = 0.4ng/Kg
		AOC10TAA1-CW12-3FD	9.5 ng/Kg	U	LB<RL	blank target = 0.4ng/Kg
		AOC10TAA1-CW15-3	10 ng/Kg	U	EB<RL	blank target = 4.7pg/L
		AOC10TAA1-CW15-3	10 ng/Kg	U	LB<RL	blank target = 0.4ng/Kg
		AOC1TAA1-CF1a-7	1400 ng/Kg	U	EB>RL	blank target = 8600pg/L
		AOC1TAA1-CW1a-5	2600 ng/Kg	U	EB>RL	blank target = 8600pg/L
		AOC1TAA1-CW2a-5	2100 ng/Kg	U	EB>RL	blank target = 8600pg/L
		AOC1TAA1-CW4a-5	1400 ng/Kg	U	EB>RL	blank target = 8600pg/L
		AOC1TAA2-CF1-10	9.8 ng/Kg	U	EB<RL	blank target = 21pg/L
		AOC1TAA2-CF1-10	9.8 ng/Kg	U	LB<RL	blank target = 1.3ng/Kg
		AOC1TAA2-CW2-5	11 ng/Kg	U	EB<RL	blank target = 21pg/L
		AOC1TAA2-CW2-5	11 ng/Kg	U	LB<RL	blank target = 1.3ng/Kg
		AOC27TAA1-CW1-3	5.6 ng/Kg	U	EB<RL	blank target = 20pg/L
		AOC27TAA1-CW1-3FD	5.2 ng/Kg	U	EB<RL	blank target = 20pg/L
		AOC27TAA1-CW2-3	9.8 ng/Kg	U	EB<RL	blank target = 20pg/L
		AOC27TAA1-CW2-3	9.8 ng/Kg	U	LB<RL	blank target = 1.9ng/Kg
	SWMU1TAA1-CW21-6	10 ng/Kg	U	EB<RL	blank target = 21pg/L	
	SWMU1TAA1-CW21-6	10 ng/Kg	U	LB<RL	blank target = 1.3ng/Kg	

TABLE F1. Blank Contamination - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	Blank Contamination Qualifier*	Criteria	Comments
SW8290 (Soil)						
OCDF		SWMU1TAA1-CW22-6	14 ng/Kg	U	LB<RL	blank target = 3.6ng/Kg
		SWMU1TAA1-CW36-3FD	9.8 ng/Kg	U	LB<RL	blank target = 0.27ng/Kg
		SWMU1TAA1-CW40-4	13 ng/Kg	U	LB<RL	blank target = 0.77ng/Kg
		SWMU1TAA2-CW3-3	9.4 ng/Kg	U	EB<RL	blank target = 4.7pg/L

ng/Kg = Undefined Unit in tlkpUnits

Blank target = concentration of field or laboratory blank.

* The most severe flag for each analyte becomes the final validation flag.

Qualifier Description:

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the reporting limit (RL).

Criteria:

- EB<RL = Equipment blank concentration less than the RL
- EB>RL = Equipment blank concentration greater than the RL
- LB<RL = Laboratory blank contamination less than the RL

TABLE F2. Calibration Criteria - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	Calibration Qualifier*	Criteria	Validation Comments
SW6010B (SOIL)						
Copper		SWMU1TAA3-CF1-3	20 mg/Kg	J	CCV>UCL	%D +11 vs. 10
		SWMU1TAA3-CW1-2	15 mg/Kg	J	CCV>UCL	%D +11 vs. 10
		SWMU1TAA3-CW2-2	36 mg/Kg	J	CCV>UCL	%D +11 vs. 10
		SWMU1TAA3-CW3-2	13 mg/Kg	J	CCV>UCL	%D +11 vs. 10
		SWMU1TAA3-CW4-2	16 mg/Kg	J	CCV>UCL	%D +11 vs. 10
Lead		AOC14TAA1-CW8-4	5.1 mg/Kg	J	CCV>UCL	%D +14 vs. 10
		AOC14TAA1-CW9-4	4.3 mg/Kg	J	CCV>UCL	%D +14 vs. 10
Zinc		AOC14TAA1-CW10-5	31 mg/Kg	J	CCV<LCL	%D -14 vs. 10
		AOC14TAA1-CW12-5	32 mg/Kg	J	CCV<LCL	%D -14 vs. 10
SW8290 (Soil)						
1,2,3,4,6,7,8-Heptachlorodibenzofuran		AOC10TAA1-CW6a-1	7400 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA2-CW20-1FD	8700 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CF8-2	34000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW16b-2.5	4700 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW16b-2.5FD	3400 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW17-1FD	3600 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW5-3	6600 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW6-3	5300 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CF13-10	2600 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CF14-10	3100 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin		AOC10TAA1-CF1-3	4400 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA1-CF2-0	12000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA1-CF2a-3	11000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA1-CW13-1.5	11000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA1-CW16-3	6200 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA1-CW6-2	8100 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA1-CW6a-1	74000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA1-CW8-2	2400 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA2-CF11-3.5	3600 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA2-CW20-1FD	57000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
	AOC10TAA2-CW26-2	3300 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est	

TABLE F2. Calibration Criteria - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	Calibration Qualifier*	Criteria	Validation Comments
SW8290 (Soil)						
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	AOC10TAA4-CF2-5	11000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est	
	AOC10TAA4-CF8-2	270000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est	
	AOC10TAA4-CW12a-1	6400 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est	
	AOC10TAA4-CW13-2	7300 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est	
	AOC10TAA4-CW14-1	2700 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est	
	AOC10TAA4-CW16-1	2700 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est	
	AOC10TAA4-CW16a-1	4700 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est	
	AOC10TAA4-CW16b-2.5	19000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est	
	AOC10TAA4-CW16b-2.5FD	16000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est	
	AOC10TAA4-CW17-1	4000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est	
	AOC10TAA4-CW17-1FD	9300 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est	
	AOC10TAA4-CW6-3	36000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est	
	AOC11TAA1-CF-2-7.5	5200 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est	
	AOC11TAA1-CF-2-7.5FD	5700 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est	
	AOC11TAA1-CF-3-10	4200 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est	
	AOC11TAA1-CF4-7	5000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est	
	AOC11TAA1-CW-3-6	3300 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est	
	AOC1TAA1-CF1-5	20000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est	
	AOC1TAA1-CF1-5R	22000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est	
	AOC1TAA1-CW1a-5	8600 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est	
	AOC1TAA1-CW1b-5	3700 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est	
	AOC1TAA1-CW2a-5	9500 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est	
	AOC1TAA1-CW2b-5	3500 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est	
	AOC1TAA1-CW2c-5	6400 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est	
	AOC1TAA1-CW2d-5	2500 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est	
	AOC1TAA1-CW3-2	2200 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est	
	AOC1TAA1-CW3a-5	220000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est	
	AOC1TAA1-CW3b-5	15000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est	
	AOC1TAA1-CW4-2	3700 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est	
	AOC1TAA1-CW4a-5	9000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est	
	AOC1TAA2-CF4-10	4300 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est	
	AOC1TAA2-CW10-4	13000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est	
	AOC1TAA2-CW9-4	4200 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est	
	AOC9TAA1-CW2-2	9200 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est	

TABLE F2. Calibration Criteria - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	Calibration Qualifier*	Criteria	Validation Comments
SW8290 (Soil)						
	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	AOC9TAA1-CW2a-1	6000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		LowerSpy-PS6Sa-2024	3400 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CF13-10	15000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CF14-10	24000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CW29-5	6000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CW29a-4	3200 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CW6-6	3200 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CW7b-6	6400 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA3-CW4-2	10000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
	1,2,3,4,7,8,9-Heptachlorodibenzofuran	AOC10TAA4-CF8-2	3500 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
	1,2,3,6,7,8-Hexachlorodibenzofuran	AOC10TAA4-CF8-2	3400 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	AOC10TAA4-CF8-2	7900 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	AOC10TAA4-CF8-2	3100 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		LowerSpy-PS13a-2024	7 ng/Kg	J	CCV>UCL	%D 22.3% vs. 20
		LowerSpy-PS6Sb-2024	0.29 ng/Kg	J	CCV>UCL	%D 22.3% vs. 20
	OCDD	AOC10TAA1-CF12-5	7100 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA1-CF12-5	7100 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA1-CF1-3	71000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA1-CF13-5	20000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA1-CF14-5FD	8700 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA1-CF2-0	130000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA1-CF2a-3	100000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA1-CF3-3	5700 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA1-CW10-1	12000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA1-CW13-1.5	140000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA1-CW16-3	73000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA1-CW17-3	22000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA1-CW18-3	9400 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA1-CW6-2	130000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est

TABLE F2. Calibration Criteria - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	Calibration Qualifier*	Criteria	Validation Comments
SW8290 (Soil)						
OCDD		AOC10TAA1-CW6a-1	140000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA1-CW8-2	35000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA2-CF10-2	26000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA2-CF11-3.5	86000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA2-CF12-4	9000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA2-CF15-6	7400 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA2-CF16-5	17000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA2-CF3-5	7900 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA2-CF4a-1	6500 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA2-CF7-5	8500 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA2-CW20-1FD	340000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA2-CW24-2	16000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA2-CW26-2	25000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA2-CW28a-3	8200 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA2-CW29a-4	19000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA2-CW2a-4	9500 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA2-CW32-2	5500 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA2-CW34-3	32000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA3-CW1-1	13000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA3-CW4-1	20000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CF2-5	110000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CF6-2	4800 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CF7-2	8800 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CF8-2	3900000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW11-3	22000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW12a-1	75000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW1-3	14000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW13-2	73000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW14-1	17000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW15-1	14000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW16-1	17000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW16a-1	46000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW16b-2.5	200000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
	AOC10TAA4-CW16b-2.5FD	170000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est	

TABLE F2. Calibration Criteria - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	Calibration Qualifier*	Criteria	Validation Comments
SW8290 (Soil)						
OCDD		AOC10TAA4-CW17-1	57000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW17-1FD	180000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW18-1	3600 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW19-4	12000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW20-1	4100 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW21-1	5300 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW6-3	320000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW9-1	5300 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC11TAA1-CF-1-7.5	9600 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC11TAA1-CF-2-7.5	19000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC11TAA1-CF-2-7.5FD	27000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC11TAA1-CF4-7	74000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC11TAA1-CF6-7	80000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC14TAA1-CW5-5	13000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC14TAA1-CW6-5	7400 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC14TAA1-CW8-4	8900 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA1-CF1a-7	24000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA1-CW1-3	5600 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA1-CW1a-5	93000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA1-CW1b-5	58000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA1-CW1c-5	18000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA1-CW1d-5	11000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA1-CW2-3	7300 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA1-CW2a-5	100000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA1-CW2b-5	44000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA1-CW2c-5	89000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA1-CW2d-5	28000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA1-CW3-2	25000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA1-CW3a-5	880000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA1-CW3b-5	200000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA1-CW4-2	43000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA1-CW4a-5	110000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA2-CF2-10	7400 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA2-CF3-10	22000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est

TABLE F2. Calibration Criteria - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	Calibration Qualifier*	Criteria	Validation Comments
SW8290 (Soil)						
	OCDD	AOC1TAA2-CF4-10	58000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA2-CW10-4	250000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA2-CW11-4	36000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA2-CW12-3	23000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA2-CW12-3FD	17000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA2-CW1-5.5	10000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA2-CW3-5	31000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA2-CW4a-6	26000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA2-CW5a-5	8000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA2-CW6-6	14000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA2-CW6a-6	11000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA2-CW6b-6	21000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA2-CW6c-7	20000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA2-CW7-8	15000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA2-CW8-7	9600 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA2-CW9-4	64000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC9TAA1-CF1-3	17000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC9TAA1-CW2-2	130000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC9TAA1-CW2a-1	34000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC9TAA1-CW3-2	27000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC9TAA1-CW4a-1	16000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		LowerSpy-PS10a-2024	15000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		LowerSpy-PS16b-2024	4500 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		LowerSpy-PS22-2024	9900 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		LowerSpy-PS3-2024	23000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		LowerSpy-PS6Na-2024	8100 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		LowerSpy-PS6Sa-2024	56000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		LowerSpy-PS6Sa-2024FD	6200 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CF13-10	330000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CF14-10	420000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CF15-10	29000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CF16-10	20000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CF4-10	150000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CF7-6	27000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est

TABLE F2. Calibration Criteria - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	Calibration Qualifier*	Criteria	Validation Comments
SW8290 (Soil)						
OCDD		SWMU1TAA1-CF9a-7	11000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CW18-6	27000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CW20a-5	14000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CW23-2	16000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CW28-5	6200 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CW29-5	83000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CW29a-4	48000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CW2a-5	30000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CW32-4	27000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CW32a-4	22000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CW32a-4FD	16000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CW6-6	41000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CW7a-5	11000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CW7b-6	74000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA2-CF2-4	10000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA3-CF1a-3	16000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA3-CW1-2	21000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA3-CW4-2	130000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		UpperSpy-PS4-2024	6600 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		UpperSpy-PS6-2024	6500 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
OCDF		AOC10TAA1-CW16-3	5000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA1-CW6a-1	25000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA2-CW20-1FD	26000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CF2-5	5400 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CF8-2	400000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW16b-2.5	13000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW16b-2.5FD	9800 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW17-1FD	15000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW6-3	15000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC11TAA1-CF4-7	6500 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA1-CF1-5R	4500 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA2-CF3-10	880 ng/Kg	J	CCV<LCL	%D -21.6 vs. 20
		AOC1TAA2-CW10-4	24000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CF13-10	6600 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est

TABLE F2. Calibration Criteria - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	Calibration Qualifier*	Criteria	Validation Comments
SW8290 (Soil)						
	OCDF	SWMU1TAA1-CF15-10	120 ng/Kg	J	CCV<LCL	%D -20.6 vs. 20
	Total HpCDD	AOC10TAA1-CW13-1.5	24000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA1-CW16-3	13000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA1-CW6a-1	160000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA2-CF11-3.5	7000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA2-CW20-1FD	100000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA2-CW26-2	5800 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CF2-5	22000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CF8-2	500000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW11-3	4800 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW12a-1	14000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW13-2	15000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW14-1	4400 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW16-1	4700 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW16b-2.5	41000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW16b-2.5FD	35000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW17-1	8700 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW17-1FD	21000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW19-4	3400 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW6-3	66000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC11TAA1-CF-2-7.5	11000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC11TAA1-CF-2-7.5FD	12000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC11TAA1-CF-3-10	9500 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC11TAA1-CF4-7	11000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC11TAA1-CW-3-6	7200 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA1-CF1-5	43000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA1-CF1-5R	47000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA1-CW1a-5	17000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA1-CW1b-5	8700 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA1-CW2a-5	19000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA1-CW2b-5	7600 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA1-CW2c-5	13000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA1-CW2d-5	5200 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA1-CW3-2	4600 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est

TABLE F2. Calibration Criteria - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	Calibration Qualifier*	Criteria	Validation Comments
SW8290 (Soil)						
Total HpCDD		AOC1TAA1-CW3a-5	450000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA1-CW3b-5	32000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA1-CW4-2	7700 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA1-CW4a-5	21000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA2-CW10-4	37000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA2-CW9-4	9400 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC9TAA1-CW2a-1	12000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		LowerSpy-PS6Sa-2024	6000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CF13-10	27000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CF14-10	40000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CW29-5	12000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CW29a-4	6500 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CW6-6	6200 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CW7b-6	13000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA3-CW4-2	21000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
	Total HpCDF		AOC10TAA1-CW13-1.5	7700 ng/Kg	J	>ICLinearRange
		AOC10TAA1-CW6a-1	29000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA2-CW20-1FD	34000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CF2-5	8500 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CF8-2	140000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW12a-1	4800 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW13-2	5300 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW16b-2.5	13000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW16b-2.5FD	11000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW17-1FD	10000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW5-3	7200 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW6-3	5800 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA1-CF1-5	7500 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA1-CF1-5R	6600 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA1-CW3a-5	5500 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA2-CW10-4	8400 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CF13-10	7600 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CF14-10	13000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CW29-5	4000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est

TABLE F2. Calibration Criteria - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	Calibration Qualifier*	Criteria	Validation Comments
SW8290 (Soil)						
Total HpCDF		SWMU1TAA1-CW6-6	4500 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CW7b-6	5700 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
Total HxCDD		AOC10TAA1-CW6a-1	7300 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA2-CW20-1FD	8100 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CF8-2	43000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW16b-2.5	6200 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW16b-2.5FD	5400 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW5-3	7600 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC1TAA1-CW3a-5	15000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
Total HxCDF		AOC10TAA1-CW6a-1	12000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA2-CW20-1FD	7700 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CF8-2	35000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW16b-2.5	5200 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW16b-2.5FD	4700 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		AOC10TAA4-CW5-3	4500 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
		SWMU1TAA1-CF14-10	2600 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
Total PeCDF		AOC10TAA4-CF8-2	11000 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est
Total TCDF		AOC10TAA4-CF8-2	2500 ng/Kg	J	>ICLinearRange	Exceeded linear calib range. Flag as est

%D = percent difference

mg/Kg = milligrams per kilogram

ng/Kg = Undefined Unit in tlkpUnits

* The most severe flag for each analyte becomes the final validation flag.

Qualifier Description:

J = The analyte was positively identified, the quantitation is an estimate.

Criteria:

>ICLinearRange = Result greater than linear calibration range

CCV<LCL = Continuing calibration recovery less than lower control limit

CCV>UCL = Continuing calibration recovery greater than upper control limit

TABLE F3. Field Duplicate Precision - Qualified Data

Method (Matrix)						
Analyte	Sample Identification	Result	Field Duplicate Qualifier*	Criteria	Validation Comments	
SW6010B (SOIL)						
Chromium	AOC10TAA1-CW5-2	8.1 mg/Kg	J	FD>RPD	33.09 vs 20	
	AOC10TAA1-CW5-2FD	5.8 mg/Kg	J	FD>RPD	33.09 vs 20	
	AOC10TAA2-CW26a-2	37 mg/Kg	J	FD>RPD	44.21 vs 20	
	AOC10TAA2-CW26a-2FD	58 mg/Kg	J	FD>RPD	44.21 vs 20	
	AOC10TAA2-CW7-4	30 mg/Kg	J	FD>RPD	55.32 vs 20	
	AOC10TAA2-CW7-4FD	17 mg/Kg	J	FD>RPD	55.32 vs 20	
	AOC10TAA4-CW17-1	140 mg/Kg	J	FD>RPD	107.69 vs 20	
	AOC10TAA4-CW17-1FD	42 mg/Kg	J	FD>RPD	107.69 vs 20	
	AOC10TAA4-CW3-3	320 mg/Kg	J	FD>RPD	20.69 vs 20	
	AOC10TAA4-CW3-3FD	260 mg/Kg	J	FD>RPD	20.69 vs 20	
	AOC11TAA1-CF-2-7.5	46 mg/Kg	J	FD>RPD	21.69 vs 20	
	AOC11TAA1-CF-2-7.5FD	37 mg/Kg	J	FD>RPD	21.69 vs 20	
	AOC27TAA1-CW1-3	16 mg/Kg	J	FD>RPD	31.58 vs 20	
	AOC27TAA1-CW1-3FD	22 mg/Kg	J	FD>RPD	31.58 vs 20	
	LowerSpy-PS3a-2024	20 mg/Kg	J	FD>RPD	35.29 vs 20	
	LowerSpy-PS3a-2024FD	14 mg/Kg	J	FD>RPD	35.29 vs 20	
	LowerSpy-PS6Sa-2024	130 mg/Kg	J	FD>RPD	Difference > RL X 4: 115 vs 4	
	LowerSpy-PS6Sa-2024FD	15 mg/Kg	J	FD>RPD	Difference > RL X 4: 115 vs 4	
	SWMU1TAA1-CF12-10	16 mg/Kg	J	FD>RPD	40 vs 20	
	SWMU1TAA1-CF12-10FD	24 mg/Kg	J	FD>RPD	40 vs 20	
	SWMU1TAA1-CW1-5	25 mg/Kg	J	FD>RPD	52.94 vs 20	
	SWMU1TAA1-CW1-5FD	43 mg/Kg	J	FD>RPD	52.94 vs 20	
	SWMU1TAA1-CW26-7	450 mg/Kg	J	FD>RPD	64.71 vs 20	
	SWMU1TAA1-CW26-7FD	230 mg/Kg	J	FD>RPD	64.71 vs 20	
	SWMU1TAA1-CW36-3	8.3 mg/Kg	J	FD>RPD	28.97 vs 20	
	SWMU1TAA1-CW36-3FD	6.2 mg/Kg	J	FD>RPD	28.97 vs 20	
	Copper	AOC10TAA4-CW17-1	99 mg/Kg	J	FD>RPD	130 vs 20
		AOC10TAA4-CW17-1FD	21 mg/Kg	J	FD>RPD	130 vs 20
AOC11TAA1-CF-2-7.5		23 mg/Kg	J	FD>RPD	30 vs 20	
AOC11TAA1-CF-2-7.5FD		17 mg/Kg	J	FD>RPD	30 vs 20	
AOC14TAA1-CF1-6		75 mg/Kg	J	FD>RPD	133.33 vs 20	
AOC14TAA1-CF1-6FD		15 mg/Kg	J	FD>RPD	133.33 vs 20	
AOC14TAA1-CW11-3		22 mg/Kg	J	FD>RPD	44.44 vs 20	
AOC14TAA1-CW11-FD3		14 mg/Kg	J	FD>RPD	44.44 vs 20	

TABLE F3. Field Duplicate Precision - Qualified Data

Method (Matrix)						
Analyte	Sample Identification	Result	Field Duplicate Qualifier*	Criteria	Validation Comments	
SW6010B (SOIL)						
Copper	AOC27TAA1-CW1-3	13 mg/Kg	J	FD>RPD	32.26 vs 20	
	AOC27TAA1-CW1-3FD	18 mg/Kg	J	FD>RPD	32.26 vs 20	
	LowerSpy-PS3a-2024	16 mg/Kg	J	FD>RPD	28.57 vs 20	
	LowerSpy-PS3a-2024FD	12 mg/Kg	J	FD>RPD	28.57 vs 20	
Lead	AOC10TAA1-CF14-5	9.6 mg/Kg	J	FD>RPD	43.9 vs 20	
	AOC10TAA1-CF14-5FD	15 mg/Kg	J	FD>RPD	43.9 vs 20	
	AOC10TAA2-CW25-2	9.3 mg/Kg	J	FD>RPD	33.18 vs 20	
	AOC10TAA2-CW25-2 FD	13 mg/Kg	J	FD>RPD	33.18 vs 20	
	AOC10TAA4-CW17-1	12 mg/Kg	J	FD>RPD	Difference > RL X 4: 8.3 vs 4	
	AOC10TAA4-CW17-1FD	3.7 mg/Kg	J	FD>RPD	Difference > RL X 4: 8.3 vs 4	
	AOC14TAA1-CF1-6	11 mg/Kg	J	FD>RPD	53.33 vs 20	
	AOC14TAA1-CF1-6FD	19 mg/Kg	J	FD>RPD	53.33 vs 20	
	AOC27TAA1-CW1-3	7.8 mg/Kg	J	FD>RPD	34.04 vs 20	
	AOC27TAA1-CW1-3FD	11 mg/Kg	J	FD>RPD	34.04 vs 20	
Zinc	AOC10TAA1-CW12-3	22 mg/Kg	J	FD>RPD	25.64 vs 20	
	AOC10TAA1-CW12-3FD	17 mg/Kg	J	FD>RPD	25.64 vs 20	
	AOC10TAA1-CW5-2	21 mg/Kg	J	FD>RPD	21.05 vs 20	
	AOC10TAA1-CW5-2FD	17 mg/Kg	J	FD>RPD	21.05 vs 20	
	AOC10TAA2-CW26a-2	45 mg/Kg	J	FD>RPD	21.78 vs 20	
	AOC10TAA2-CW26a-2FD	56 mg/Kg	J	FD>RPD	21.78 vs 20	
	AOC10TAA4-CW17-1	320 mg/Kg	J	FD>RPD	122.42 vs 20	
	AOC10TAA4-CW17-1FD	77 mg/Kg	J	FD>RPD	122.42 vs 20	
	AOC14TAA1-CF2a-13	60 mg/Kg	J	FD>RPD	30.77 vs 20	
	AOC14TAA1-CF2a-13FD	44 mg/Kg	J	FD>RPD	30.77 vs 20	
	AOC14TAA1-CW11-3	42 mg/Kg	J	FD>RPD	28.57 vs 20	
	AOC14TAA1-CW11-FD3	56 mg/Kg	J	FD>RPD	28.57 vs 20	
	LowerSpy-PS3a-2024	52 mg/Kg	J	FD>RPD	41.86 vs 20	
	LowerSpy-PS3a-2024FD	34 mg/Kg	J	FD>RPD	41.86 vs 20	
	LowerSpy-PS6Sa-2024	37 mg/Kg	J	FD>RPD	20.9 vs 20	
	LowerSpy-PS6Sa-2024FD	30 mg/Kg	J	FD>RPD	20.9 vs 20	
	SW7199 (SOIL)					
	Chromium, hexavalent	AOC10TAA2-CW25-2	5.2 mg/Kg	J	FD>RPD	21.28 vs 20
AOC10TAA2-CW25-2 FD		4.2 mg/Kg	J	FD>RPD	21.28 vs 20	

TABLE F3. Field Duplicate Precision - Qualified Data

Method (Matrix)					
Analyte	Sample Identification	Result	Field Duplicate Qualifier*	Criteria	Validation Comments
SW7199 (SOIL)					
Chromium, hexavalent	AOC10TAA4-CW17-1	3.9 mg/Kg	J	FD>RPD	Difference > RL X 4: 2.9 vs 0.84
	AOC10TAA4-CW17-1FD	1 mg/Kg	J	FD>RPD	Difference > RL X 4: 2.9 vs 0.84
	AOC10TAA4-CW3-3	8.2 mg/Kg	J	FD>RPD	27.78 vs 20
	AOC10TAA4-CW3-3FD	6.2 mg/Kg	J	FD>RPD	27.78 vs 20
	AOC1TAA3-CF1-4	1.8 mg/Kg	J	Lab Dup RPD	%RPD = 56 vs 20
	LowerSpy-PS6Sa-2024	2.9 mg/Kg	J	FD>RPD	Analyte detected in only 1/2 of duplicate pair, Difference > RL X 4: 2.852 vs 0.4
	LowerSpy-PS6Sa-2024FD	0.2 mg/Kg	UJ	FD>RPD	Analyte detected in only 1/2 of duplicate pair, Difference > RL X 4: 2.852 vs 0.4
	SWMU1TAA1-CW1-5	1.5 mg/Kg	J	FD>RPD	22.22 vs 20
	SWMU1TAA1-CW1-5FD	1.2 mg/Kg	J	FD>RPD	22.22 vs 20
	SWMU1TAA1-CW26-7	4.4 mg/Kg	J	FD>RPD	51.43 vs 20
SWMU1TAA1-CW26-7FD	2.6 mg/Kg	J	FD>RPD	51.43 vs 20	
SW7471A (SOIL)					
Mercury	AOC16TAA1-CW1-0.5	1.3 mg/Kg	J	FD>RPD	Analyte detected in only 1/2 of duplicate pair, Difference > RL X 4: 1.27 vs 0.4
	AOC16TAA1-CW1-0.5FD	0.1 mg/Kg	UJ	FD>RPD	Analyte detected in only 1/2 of duplicate pair, Difference > RL X 4: 1.27 vs 0.4
SW8290 (Soil)					
1,2,3,4,6,7,8-Heptachlorodibenzofuran	AOC10TAA1-CF14-5	21 ng/Kg	J	FD>RPD	Difference > RL X 4: 62 vs 20
	AOC10TAA1-CF14-5FD	83 ng/Kg	J	FD>RPD	Difference > RL X 4: 62 vs 20
	AOC10TAA4-CW17-1	1300 ng/Kg	J	FD>RPD	93.88 vs 40
	AOC10TAA4-CW17-1FD	3600 ng/Kg	J	FD>RPD	93.88 vs 40
	AOC11TAA1-CF-2-7.5	80 ng/Kg	J	FD>RPD	72 vs 40
	AOC11TAA1-CF-2-7.5FD	170 ng/Kg	J	FD>RPD	72 vs 40
	LowerSpy-PS6Sa-2024	410 ng/Kg	J	FD>RPD	157.3 vs 40
	LowerSpy-PS6Sa-2024FD	49 ng/Kg	J	FD>RPD	157.3 vs 40
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	AOC10TAA1-CF14-5	420 ng/Kg	J	FD>RPD	51.33 vs 40
	AOC10TAA1-CF14-5FD	710 ng/Kg	J	FD>RPD	51.33 vs 40
	AOC10TAA2-CF22a-3	57 ng/Kg	J	FD>RPD	43.84 vs 40
	AOC10TAA2-CF22a-3FD	89 ng/Kg	J	FD>RPD	43.84 vs 40
	AOC10TAA2-CW41-2	30 ng/Kg	J	FD>RPD	65.17 vs 40
	AOC10TAA2-CW41-2FD	59 ng/Kg	J	FD>RPD	65.17 vs 40

TABLE F3. Field Duplicate Precision - Qualified Data

Method (Matrix)					
Analyte	Sample Identification	Result	Field Duplicate Qualifier*	Criteria	Validation Comments
SW8290 (Soil)					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	AOC10TAA4-CW17-1	4000 ng/Kg	J	FD>RPD	79.7 vs 40
	AOC10TAA4-CW17-1FD	9300 ng/Kg	J	FD>RPD	79.7 vs 40
	AOC11TAA1-CW6a-4	5600 ng/Kg	J	FD>RPD	51.66 vs 40
	AOC11TAA1-CW6a-4FD	9500 ng/Kg	J	FD>RPD	51.66 vs 40
	AOC14TAA1-CF2a-13	130 ng/Kg	J	FD>RPD	95.45 vs 40
	AOC14TAA1-CF2a-13FD	46 ng/Kg	J	FD>RPD	95.45 vs 40
	LowerSpy-PS3a-2024	150 ng/Kg	J	FD>RPD	126.09 vs 40
	LowerSpy-PS3a-2024FD	34 ng/Kg	J	FD>RPD	126.09 vs 40
1,2,3,4,7,8,9-Heptachlorodibenzofuran	LowerSpy-PS6Sa-2024FD	390 ng/Kg	J	FD>RPD	Difference > RL X 4: 159 vs 16.4
	AOC10TAA4-CW17-1	120 ng/Kg	J	FD>RPD	73.68 vs 40
	AOC10TAA4-CW17-1FD	260 ng/Kg	J	FD>RPD	73.68 vs 40
	LowerSpy-PS6Sa-2024	32 ng/Kg	J	FD>RPD	Difference > RL X 4: 26.9 vs 16.8
1,2,3,4,7,8-Hexachlorodibenzofuran	LowerSpy-PS6Sa-2024FD	5.1 ng/Kg	J	FD>RPD	Difference > RL X 4: 26.9 vs 16.8
	AOC10TAA4-CW17-1	49 ng/Kg	J	FD>RPD	84.02 vs 40
	AOC10TAA4-CW17-1FD	120 ng/Kg	J	FD>RPD	84.02 vs 40
	LowerSpy-PS6Sa-2024	38 ng/Kg	J	FD>RPD	Difference > RL X 4: 34.9 vs 16.8
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	LowerSpy-PS6Sa-2024FD	3.1 ng/Kg	J	FD>RPD	Difference > RL X 4: 34.9 vs 16.8
	AOC10TAA4-CW17-1	40 ng/Kg	J	FD>RPD	93.33 vs 40
	AOC10TAA4-CW17-1FD	110 ng/Kg	J	FD>RPD	93.33 vs 40
	LowerSpy-PS6Sa-2024FD	2.4 ng/Kg	J	FD>RPD	Difference > RL X 4: 155 vs 16.4
1,2,3,6,7,8-Hexachlorodibenzofuran	AOC10TAA4-CW17-1	44 ng/Kg	J	FD>RPD	98.85 vs 40
	AOC10TAA4-CW17-1FD	130 ng/Kg	J	FD>RPD	98.85 vs 40
	LowerSpy-PS6Sa-2024FD	1.9 ng/Kg	J	FD>RPD	Difference > RL X 4: 155 vs 16.4
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	AOC10TAA4-CW17-1	170 ng/Kg	J	FD>RPD	78.57 vs 40
	AOC10TAA4-CW17-1FD	390 ng/Kg	J	FD>RPD	78.57 vs 40
	LowerSpy-PS6Sa-2024	110 ng/Kg	J	FD>RPD	Difference > RL X 4: 99 vs 16.8
	LowerSpy-PS6Sa-2024FD	11 ng/Kg	J	FD>RPD	Difference > RL X 4: 99 vs 16.8
1,2,3,7,8,9-Hexachlorodibenzofuran	LowerSpy-PS6Sa-2024FD	0.86 ng/Kg	J	FD>RPD	Difference > RL X 4: 169 vs 16.4

TABLE F3. Field Duplicate Precision - Qualified Data

Method (Matrix)					
Analyte	Sample Identification	Result	Field Duplicate Qualifier*	Criteria	Validation Comments
SW8290 (Soil)					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	AOC10TAA4-CW17-1	96 ng/Kg	J	FD>RPD	97.87 vs 40
	AOC10TAA4-CW17-1FD	280 ng/Kg	J	FD>RPD	97.87 vs 40
	LowerSpy-PS6Sa-2024	38 ng/Kg	J	FD>RPD	Difference > RL X 4: 33.6 vs 16.8
	LowerSpy-PS6Sa-2024FD	4.4 ng/Kg	J	FD>RPD	Difference > RL X 4: 33.6 vs 16.8
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	AOC10TAA4-CW17-1	20 ng/Kg	J	FD>RPD	Difference > RL X 4: 31 vs 20
	AOC10TAA4-CW17-1FD	51 ng/Kg	J	FD>RPD	Difference > RL X 4: 31 vs 20
	LowerSpy-PS6Sa-2024FD	0.53 ng/Kg	J	FD>RPD	Difference > RL X 4: 169 vs 16.4
2,3,4,6,7,8-Hexachlorodibenzofuran	AOC10TAA4-CW17-1	69 ng/Kg	J	FD>RPD	67.94 vs 40
	AOC10TAA4-CW17-1FD	140 ng/Kg	J	FD>RPD	67.94 vs 40
	LowerSpy-PS6Sa-2024	21 ng/Kg	J	FD>RPD	Difference > RL X 4: 19 vs 16.8
	LowerSpy-PS6Sa-2024FD	2 ng/Kg	J	FD>RPD	Difference > RL X 4: 19 vs 16.8
OCDD	AOC10TAA1-CF14-5	4400 ng/Kg	J	FD>RPD	65.65 vs 40
	AOC10TAA1-CF14-5FD	8700 ng/Kg	J	FD>RPD	65.65 vs 40
	AOC10TAA2-CF22a-3	280 ng/Kg	J	FD>RPD	60 vs 40
	AOC10TAA2-CF22a-3FD	520 ng/Kg	J	FD>RPD	60 vs 40
	AOC10TAA2-CW41-2	270 ng/Kg	J	FD>RPD	71.43 vs 40
	AOC10TAA2-CW41-2FD	570 ng/Kg	J	FD>RPD	71.43 vs 40
	AOC10TAA4-CW17-1	57000 ng/Kg	J	FD>RPD	103.8 vs 40
	AOC10TAA4-CW17-1FD	180000 ng/Kg	J	FD>RPD	103.8 vs 40
	AOC11TAA1-CW6a-4	79000 ng/Kg	J	FD>RPD	62.01 vs 40
	AOC11TAA1-CW6a-4FD	150000 ng/Kg	J	FD>RPD	62.01 vs 40
	AOC14TAA1-CF2a-13	1300 ng/Kg	J	FD>RPD	92.13 vs 40
	AOC14TAA1-CF2a-13FD	480 ng/Kg	J	FD>RPD	92.13 vs 40
	LowerSpy-PS3a-2024	2700 ng/Kg	J	FD>RPD	140.69 vs 40
	LowerSpy-PS3a-2024FD	470 ng/Kg	J	FD>RPD	140.69 vs 40
	LowerSpy-PS8a-2024	23 ng/Kg	J	FD>RPD	Difference > RL X 4: 32 vs 29.6
	LowerSpy-PS8a-2024FD	55 ng/Kg	J	FD>RPD	Difference > RL X 4: 32 vs 29.6
	OCDF	SWMU1TAA2-CW4-1.5	220 ng/Kg	J	FD>RPD
SWMU1TAA2-CW4-1.5FD		140 ng/Kg	J	FD>RPD	44.44 vs 40
OCDF	AOC10TAA1-CF14-5	150 ng/Kg	J	FD>RPD	50 vs 40
	AOC10TAA1-CF14-5FD	250 ng/Kg	J	FD>RPD	50 vs 40

TABLE F3. Field Duplicate Precision - Qualified Data

Method (Matrix)						
Analyte	Sample Identification	Result	Field Duplicate Qualifier*	Criteria	Validation Comments	
SW8290 (Soil)						
OCDF	AOC10TAA4-CW17-1	5400 ng/Kg	J	FD>RPD	94.12 vs 40	
	AOC10TAA4-CW17-1FD	15000 ng/Kg	J	FD>RPD	94.12 vs 40	
	AOC11TAA1-CF-2-7.5	470 ng/Kg	J	FD>RPD	50.79 vs 40	
	AOC11TAA1-CF-2-7.5FD	790 ng/Kg	J	FD>RPD	50.79 vs 40	
	AOC11TAA1-CW6a-4	5800 ng/Kg	J	FD>RPD	61.9 vs 40	
	AOC11TAA1-CW6a-4FD	11000 ng/Kg	J	FD>RPD	61.9 vs 40	
	AOC1TAA2-CW12-3	1100 ng/Kg	J	FD>RPD	47.19 vs 40	
	AOC1TAA2-CW12-3FD	680 ng/Kg	J	FD>RPD	47.19 vs 40	
	LowerSpy-PS3a-2024	110 ng/Kg	J	FD>RPD	Difference > RL X 4: 92 vs 32.4	
	LowerSpy-PS3a-2024FD	18 ng/Kg	J	FD>RPD	Difference > RL X 4: 92 vs 32.4	
	LowerSpy-PS6Sa-2024FD	160 ng/Kg	J	FD>RPD	Difference > RL X 4: 172 vs 32.8	
	Total HpCDD	AOC10TAA2-CF22a-3	100 ng/Kg	J	FD>RPD	51.85 vs 40
AOC10TAA2-CF22a-3FD		170 ng/Kg	J	FD>RPD	51.85 vs 40	
AOC10TAA2-CW41-2		64 ng/Kg	J	FD>RPD	68.04 vs 40	
AOC10TAA2-CW41-2FD		130 ng/Kg	J	FD>RPD	68.04 vs 40	
AOC10TAA4-CW17-1		8700 ng/Kg	J	FD>RPD	82.83 vs 40	
AOC10TAA4-CW17-1FD		21000 ng/Kg	J	FD>RPD	82.83 vs 40	
AOC14TAA1-CF2a-13		230 ng/Kg	J	FD>RPD	88.4 vs 40	
AOC14TAA1-CF2a-13FD		89 ng/Kg	J	FD>RPD	88.4 vs 40	
LowerSpy-PS3a-2024		290 ng/Kg	J	FD>RPD	118.68 vs 40	
LowerSpy-PS3a-2024FD		74 ng/Kg	J	FD>RPD	118.68 vs 40	
Total HpCDF		AOC10TAA2-CW41-2	25 ng/Kg	J	FD>RPD	70.13 vs 40
		AOC10TAA2-CW41-2FD	52 ng/Kg	J	FD>RPD	70.13 vs 40
	AOC10TAA4-CW17-1	3300 ng/Kg	J	FD>RPD	100.75 vs 40	
	AOC10TAA4-CW17-1FD	10000 ng/Kg	J	FD>RPD	100.75 vs 40	
	AOC11TAA1-CF-2-7.5	370 ng/Kg	J	FD>RPD	70.18 vs 40	
	AOC11TAA1-CF-2-7.5FD	770 ng/Kg	J	FD>RPD	70.18 vs 40	
	AOC1TAA2-CW12-3	230 ng/Kg	J	FD>RPD	104.17 vs 40	
	AOC1TAA2-CW12-3FD	730 ng/Kg	J	FD>RPD	104.17 vs 40	
	LowerSpy-PS3a-2024	65 ng/Kg	J	FD>RPD	105.88 vs 40	
	LowerSpy-PS3a-2024FD	20 ng/Kg	J	FD>RPD	105.88 vs 40	
	Total HxCDD	AOC10TAA4-CW17-1	1300 ng/Kg	J	FD>RPD	81.82 vs 40
		AOC10TAA4-CW17-1FD	3100 ng/Kg	J	FD>RPD	81.82 vs 40

TABLE F3. Field Duplicate Precision - Qualified Data

Method (Matrix)					
Analyte	Sample Identification	Result	Field Duplicate Qualifier*	Criteria	Validation Comments
SW8290 (Soil)					
Total HxCDF	AOC10TAA4-CW17-1	1800 ng/Kg	J	FD>RPD	89.23 vs 40
	AOC10TAA4-CW17-1FD	4700 ng/Kg	J	FD>RPD	89.23 vs 40
	AOC11TAA1-CF-2-7.5	49 ng/Kg	J	FD>RPD	76.73 vs 40
	AOC11TAA1-CF-2-7.5FD	110 ng/Kg	J	FD>RPD	76.73 vs 40
	AOC1TAA2-CW12-3	96 ng/Kg	J	FD>RPD	50 vs 40
	AOC1TAA2-CW12-3FD	160 ng/Kg	J	FD>RPD	50 vs 40
	SWMU1TAA1-CW8-2	73 ng/Kg	J	FD>RPD	43.33 vs 40
	SWMU1TAA1-CW8-2FD	47 ng/Kg	J	FD>RPD	43.33 vs 40
Total PeCDD	AOC10TAA4-CW17-1	110 ng/Kg	J	FD>RPD	81.08 vs 40
	AOC10TAA4-CW17-1FD	260 ng/Kg	J	FD>RPD	81.08 vs 40
Total PeCDF	AOC10TAA4-CW17-1	560 ng/Kg	J	FD>RPD	65.06 vs 40
	AOC10TAA4-CW17-1FD	1100 ng/Kg	J	FD>RPD	65.06 vs 40
	SWMU1TAA1-CW32a-4	110 ng/Kg	J	FD>RPD	41.76 vs 40
	SWMU1TAA1-CW32a-4FD	72 ng/Kg	J	FD>RPD	41.76 vs 40
Total TCDD	AOC10TAA4-CW17-1	2.4 ng/Kg	J	FD>RPD	Difference > RL X 4: 12.6 vs 4
	AOC10TAA4-CW17-1FD	15 ng/Kg	J	FD>RPD	Difference > RL X 4: 12.6 vs 4
Total TCDF	AOC10TAA4-CW17-1	57 ng/Kg	J	FD>RPD	63.47 vs 40
	AOC10TAA4-CW17-1FD	110 ng/Kg	J	FD>RPD	63.47 vs 40
	AOC14TAA1-CF2a-13	20 ng/Kg	J	FD>RPD	68.46 vs 40
	AOC14TAA1-CF2a-13FD	9.8 ng/Kg	J	FD>RPD	68.46 vs 40
	SWMU1TAA1-CW32a-4	12 ng/Kg	J	FD>RPD	41.21 vs 40
	SWMU1TAA1-CW32a-4FD	7.9 ng/Kg	J	FD>RPD	41.21 vs 40

TABLE F3. Field Duplicate Precision - Qualified Data

RPD = relative percent difference
mg/Kg = milligrams per kilogram
ng/Kg = Undefined Unit in tlkpUnits

* The most severe flag for each analyte becomes the final validation flag.

Qualifier Description:

J = The analyte was positively identified, the quantitation is an estimate.

UJ = The analyte was analyzed for, but not detected. The associated numerical value is at or below the reporting limit (RL). The quantitation is an estimate.

Criteria:

Difference > RL X 4 = The difference between the native result and the field duplicate result is greater than 4 times the reporting limit

FD>RPD = Field duplicate exceeds RPD criteria

Lab Dup RPD = Lab duplicate exceeds RPD criteria

TABLE F4. Matrix Spike Precision/Accuracy - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	MS/MSD Qualifier*	MS Recovery	Criteria
SW6010B (SOIL)						
Chromium		AOC10TAA1-CF8-3	5.7 mg/Kg	J	%D = 16.12 vs 10	SerDil
		AOC10TAA1-CF8-3FD	5.1 mg/Kg	J	%D = 16.12 vs 10	SerDil
		AOC10TAA1-CW9-1.5	29 mg/Kg	J	%D = 16.12 vs 10	SerDil
		AOC10TAA2-CF10-2	99 mg/Kg	J	%R = 7.87 LCL=75 UCL=125	MS<LCL
		AOC10TAA2-CF10-2	99 mg/Kg	J	%R = 70.8 LCL=75 UCL=125	SD<LCL
		AOC10TAA2-CF23-0	28 mg/Kg	J	%R = 71.5 LCL=75 UCL=125	SD<LCL
		AOC10TAA2-CF3-5	71 mg/Kg	J	%R = 59.8 LCL=75 UCL=125	MS<LCL
		AOC10TAA2-CF3-5	71 mg/Kg	J	%R = 38.1 LCL=75 UCL=125	SD<LCL
		AOC10TAA3-CF1-2	46 mg/Kg	J	%R = 74.8 LCL=75 UCL=125	SD<LCL
		AOC10TAA3-CW1-1	26 mg/Kg	J	%R = 74.8 LCL=75 UCL=125	SD<LCL
		AOC10TAA3-CW2-2	15 mg/Kg	J	%R = 74.8 LCL=75 UCL=125	SD<LCL
		AOC10TAA3-CW3-2	18 mg/Kg	J	%R = 74.8 LCL=75 UCL=125	SD<LCL
		AOC10TAA3-CW4-1	26 mg/Kg	J	%R = 74.8 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CF1-5	28 mg/Kg	J	%R = 61.7 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CF1-5	28 mg/Kg	J	%R = 72.5 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CF2a-7	21 mg/Kg	J	%R = 68.5 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CW10-3	21 mg/Kg	J	%R = 70.5 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CW1-3	43 mg/Kg	J	%R = 61.7 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CW1-3	43 mg/Kg	J	%R = 72.5 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CW16C-2	39 mg/Kg	J	%R = 48.8 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CW16C-2	39 mg/Kg	J	%R = 38.1 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CW2-3	32 mg/Kg	J	%R = 61.7 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CW2-3	32 mg/Kg	J	%R = 72.5 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CW3-3	320 mg/Kg	J	%R = 61.7 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CW3-3	320 mg/Kg	J	%R = 72.5 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CW3-3FD	260 mg/Kg	J	%R = 61.7 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CW3-3FD	260 mg/Kg	J	%R = 72.5 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CW4-3	56 mg/Kg	J	%R = 61.7 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CW4-3	56 mg/Kg	J	%R = 72.5 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CW5-3	530 mg/Kg	J	%R = 61.7 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CW5-3	530 mg/Kg	J	%R = 72.5 LCL=75 UCL=125	SD<LCL
		AOC14TAA1-CW1-2	26 mg/Kg	J	%R = 39.3 LCL=75 UCL=125	MS<LCL
		AOC14TAA1-CW1-2	26 mg/Kg	J	%R = 38.5 LCL=75 UCL=125	SD<LCL
	AOC1TAA2-CF3-10	69 mg/Kg	J	%R = 127 LCL=75 UCL=125	SD>UCL	
	AOC1TAA2-CW12-3	39 mg/Kg	J	%R = 150 LCL=75 UCL=125	MS>UCL	

TABLE F4. Matrix Spike Precision/Accuracy - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	MS/MSD Qualifier*	MS Recovery	Criteria	
SW6010B (SOIL)							
Chromium		AOC1TAA2-CW8-7	86 mg/Kg	J	%R = 42.5 LCL=75 UCL=125	MS<LCL	
		AOC1TAA3-CW4-4	37 mg/Kg	J	%R = 128 LCL=75 UCL=125	SD>UCL	
		LowerSpy-PS10b-2024	12 mg/Kg	J	%D=21.66% vs. 10%	SerDil	
		LowerSpy-PS16a-2024	58 mg/Kg	J	%R = 41.2 LCL=75 UCL=125	MS<LCL	
		LowerSpy-PS16b-2024	66 mg/Kg	J	%D=21.66% vs. 10%	SerDil	
		LowerSpy-PS3a-2024	20 mg/Kg	J	%D=21.66% vs. 10%	SerDil	
		LowerSpy-PS3a-2024FD	14 mg/Kg	J	%D=21.66% vs. 10%	SerDil	
		LowerSpy-PS6Nb-2024	12 mg/Kg	J	%D=21.66% vs. 10%	SerDil	
		SWMU1TAA1-CF13-10	2100 mg/Kg	J	Ser Dil > 10%. Flag as est	SerDil	
		SWMU1TAA1-CF5-8	40 mg/Kg	J	%D = 23.3 vs 10	SerDil	
		SWMU1TAA1-CW6-6	65 mg/Kg	J	%D = 23.3 vs 10	SerDil	
		SWMU1TAA1-CW7-5	160 mg/Kg	J	%D = 23.3 vs 10	SerDil	
	Copper		AOC10TAA1-CF10-3	3.5 mg/Kg	J	MSRPD = 63.92 Limit =20	MSRPD
			AOC10TAA1-CF10-3	3.5 mg/Kg	J	%R = 232 LCL=75 UCL=125	SD>UCL
		AOC10TAA2-CF10-2	27 mg/Kg	J	%R = 63.2 LCL=75 UCL=125	MS<LCL	
		AOC10TAA3-CF1-2	16 mg/Kg	J	%R = 46.2 LCL=75 UCL=125	MS<LCL	
		AOC10TAA3-CF1-2	16 mg/Kg	J	%R = 70.2 LCL=75 UCL=125	SD<LCL	
		AOC10TAA3-CW1-1	16 mg/Kg	J	%R = 46.2 LCL=75 UCL=125	MS<LCL	
		AOC10TAA3-CW1-1	16 mg/Kg	J	%R = 70.2 LCL=75 UCL=125	SD<LCL	
		AOC10TAA3-CW2-2	9.8 mg/Kg	J	%R = 46.2 LCL=75 UCL=125	MS<LCL	
		AOC10TAA3-CW2-2	9.8 mg/Kg	J	%R = 70.2 LCL=75 UCL=125	SD<LCL	
		AOC10TAA3-CW3-2	12 mg/Kg	J	%R = 46.2 LCL=75 UCL=125	MS<LCL	
		AOC10TAA3-CW3-2	12 mg/Kg	J	%R = 70.2 LCL=75 UCL=125	SD<LCL	
		AOC10TAA3-CW4-1	25 mg/Kg	J	%R = 46.2 LCL=75 UCL=125	MS<LCL	
		AOC10TAA3-CW4-1	25 mg/Kg	J	%R = 70.2 LCL=75 UCL=125	SD<LCL	
		AOC14TAA1-CF1-6	75 mg/Kg	J	%R = -106 LCL=75 UCL=125	MS<LCL	
		AOC14TAA1-CF1-6	75 mg/Kg	J	%R = -80.6 LCL=75 UCL=125	SD<LCL	
		AOC14TAA1-CF1a-10	34 mg/Kg	J	%R = 194 LCL=75 UCL=125	MS>UCL	
		AOC14TAA1-CF1a-10	34 mg/Kg	J	MSRPD = 40 Limit =20	MSRPD	
		LowerSpy-PS18-2024	14 mg/Kg	J	MSRPD = 24.72 Limit =20	MSRPD	
		LowerSpy-PS18-2024	14 mg/Kg	J	%R = 137 LCL=75 UCL=125	SD>UCL	
Lead			AOC10TAA1-CF8-3	2.3 mg/Kg	J	%R = 73.8 LCL=75 UCL=125	MS<LCL
		AOC10TAA1-CF8-3	2.3 mg/Kg	J	%R=73.3 LCL=75 UCL=125	PDS<LCL	
		AOC10TAA1-CF8-3	2.3 mg/Kg	J	%R = 73.1 LCL=75 UCL=125	SD<LCL	

TABLE F4. Matrix Spike Precision/Accuracy - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	MS/MSD Qualifier*	MS Recovery	Criteria
SW6010B (SOIL)						
	Lead	AOC10TAA1-CF8-3FD	2.2 mg/Kg	J	%R = 73.8 LCL=75 UCL=125	MS<LCL
		AOC10TAA1-CF8-3FD	2.2 mg/Kg	J	%R=73.3 LCL=75 UCL=125	PDS<LCL
		AOC10TAA1-CF8-3FD	2.2 mg/Kg	J	%R = 73.1 LCL=75 UCL=125	SD<LCL
		AOC10TAA1-CW9-1.5	4.5 mg/Kg	J	%R = 73.8 LCL=75 UCL=125	MS<LCL
		AOC10TAA1-CW9-1.5	4.5 mg/Kg	J	%R=73.3 LCL=75 UCL=125	PDS<LCL
		AOC10TAA1-CW9-1.5	4.5 mg/Kg	J	%R = 73.1 LCL=75 UCL=125	SD<LCL
		AOC10TAA2-CF10-2	12 mg/Kg	J	%R = 54.4 LCL=75 UCL=125	MS<LCL
		AOC10TAA2-CF10-2	12 mg/Kg	J	%R = 65.5 LCL=75 UCL=125	SD<LCL
		AOC10TAA2-CW18-5	6.5 mg/Kg	J	%R = 68.2 LCL=75 UCL=125	MS<LCL
		AOC10TAA2-CW18-5	6.5 mg/Kg	J	%R = 66.1 LCL=75 UCL=125	SD<LCL
		AOC10TAA2-CW28-2	46 mg/Kg	J	%R = 214 LCL=75 UCL=125	MS>UCL
		AOC10TAA2-CW28-2	46 mg/Kg	J	MSRPD = 31.21 Limit =20	MSRPD
		AOC10TAA3-CF1-2	2.2 mg/Kg	J	%R = 70.1 LCL=75 UCL=125	MS<LCL
		AOC10TAA3-CF1-2	2.2 mg/Kg	J	%R = 74.2 LCL=75 UCL=125	SD<LCL
		AOC10TAA3-CW1-1	6.9 mg/Kg	J	%R = 70.1 LCL=75 UCL=125	MS<LCL
		AOC10TAA3-CW1-1	6.9 mg/Kg	J	%R = 74.2 LCL=75 UCL=125	SD<LCL
		AOC10TAA3-CW2-2	2.2 mg/Kg	J	%R = 70.1 LCL=75 UCL=125	MS<LCL
		AOC10TAA3-CW2-2	2.2 mg/Kg	J	%R = 74.2 LCL=75 UCL=125	SD<LCL
		AOC10TAA3-CW3-2	2.4 mg/Kg	J	%R = 70.1 LCL=75 UCL=125	MS<LCL
		AOC10TAA3-CW3-2	2.4 mg/Kg	J	%R = 74.2 LCL=75 UCL=125	SD<LCL
		AOC10TAA3-CW4-1	5.2 mg/Kg	J	%R = 70.1 LCL=75 UCL=125	MS<LCL
		AOC10TAA3-CW4-1	5.2 mg/Kg	J	%R = 74.2 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CF1-5	4 mg/Kg	J	%R = 70 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CF1-5	4 mg/Kg	J	%R=74.4 LCL=75 UCL=125	PDS<LCL
		AOC10TAA4-CF1-5	4 mg/Kg	J	%R = 72.8 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CF2a-7	3.4 mg/Kg	J	%R = 70.4 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CF2a-7	3.4 mg/Kg	J	%R = 67.5 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CW10-3	10 mg/Kg	J	%R = 66 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CW10-3	10 mg/Kg	J	%R = 65.5 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CW1-3	33 mg/Kg	J	%R = 70 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CW1-3	33 mg/Kg	J	%R=74.4 LCL=75 UCL=125	PDS<LCL
		AOC10TAA4-CW1-3	33 mg/Kg	J	%R = 72.8 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CW16C-2	3.5 mg/Kg	J	%R = 74.5 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CW2-3	22 mg/Kg	J	%R = 70 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CW2-3	22 mg/Kg	J	%R=74.4 LCL=75 UCL=125	PDS<LCL

TABLE F4. Matrix Spike Precision/Accuracy - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	MS/MSD Qualifier*	MS Recovery	Criteria
SW6010B (SOIL)						
	Lead	AOC10TAA4-CW2-3	22 mg/Kg	J	%R = 72.8 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CW3-3	25 mg/Kg	J	%R = 70 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CW3-3	25 mg/Kg	J	%R=74.4 LCL=75 UCL=125	PDS<LCL
		AOC10TAA4-CW3-3	25 mg/Kg	J	%R = 72.8 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CW3-3FD	25 mg/Kg	J	%R = 70 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CW3-3FD	25 mg/Kg	J	%R=74.4 LCL=75 UCL=125	PDS<LCL
		AOC10TAA4-CW3-3FD	25 mg/Kg	J	%R = 72.8 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CW4-3	32 mg/Kg	J	%R = 70 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CW4-3	32 mg/Kg	J	%R=74.4 LCL=75 UCL=125	PDS<LCL
		AOC10TAA4-CW4-3	32 mg/Kg	J	%R = 72.8 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CW5-3	29 mg/Kg	J	%R = 70 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CW5-3	29 mg/Kg	J	%R=74.4 LCL=75 UCL=125	PDS<LCL
		AOC10TAA4-CW5-3	29 mg/Kg	J	%R = 72.8 LCL=75 UCL=125	SD<LCL
		AOC11TAA1-CW-1-3	5.2 mg/Kg	J	%R = 67.7 LCL=75 UCL=125	MS<LCL
		AOC11TAA1-CW-1-3	5.2 mg/Kg	J	%R = 66.7 LCL=75 UCL=125	SD<LCL
		AOC11TAA1-CW-3-6	11 mg/Kg	J	%R = 67.7 LCL=75 UCL=125	MS<LCL
		AOC11TAA1-CW-3-6	11 mg/Kg	J	%R = 66.7 LCL=75 UCL=125	SD<LCL
		AOC11TAA1-CW-5-6	14 mg/Kg	J	%R = 67.7 LCL=75 UCL=125	MS<LCL
		AOC11TAA1-CW-5-6	14 mg/Kg	J	%R = 66.7 LCL=75 UCL=125	SD<LCL
		AOC14TAA1-CW1-2	1.1 mg/Kg	UJ	%R = 55.4 LCL=75 UCL=125	MS<LCL
		AOC14TAA1-CW1-2	1.1 mg/Kg	UJ	%R = 54.3 LCL=75 UCL=125	SD<LCL
		AOC27TAA1-CW1-3	7.8 mg/Kg	J	%R = 67.7 LCL=75 UCL=125	MS<LCL
		AOC27TAA1-CW1-3	7.8 mg/Kg	J	MSRPD = 55.56 Limit =20	MSRPD
		AOC27TAA1-CW1-3	7.8 mg/Kg	J	%R = 143 LCL=75 UCL=125	SD>UCL
		LowerSpy-PS16c-2024	3.3 mg/Kg	J	%R = 68.2 LCL=75 UCL=125	MS<LCL
		LowerSpy-PS16c-2024	3.3 mg/Kg	J	%R = 73.7 LCL=75 UCL=125	SD<LCL
		SWMU1TAA1-CF5-8	3.4 mg/Kg	J	%R = 69.1 LCL=75 UCL=125	MS<LCL
		SWMU1TAA1-CF5-8	3.4 mg/Kg	J	%R=71.8 LCL = 75 UCL = 125	PDS<LCL
		SWMU1TAA1-CF5-8	3.4 mg/Kg	J	%R = 69.9 LCL=75 UCL=125	SD<LCL
		SWMU1TAA1-CW6-6	4.1 mg/Kg	J	%R = 69.1 LCL=75 UCL=125	MS<LCL
		SWMU1TAA1-CW6-6	4.1 mg/Kg	J	%R=71.8 LCL = 75 UCL = 125	PDS<LCL
		SWMU1TAA1-CW6-6	4.1 mg/Kg	J	%R = 69.9 LCL=75 UCL=125	SD<LCL
		SWMU1TAA1-CW7-5	12 mg/Kg	J	%R = 69.1 LCL=75 UCL=125	MS<LCL
		SWMU1TAA1-CW7-5	12 mg/Kg	J	%R=71.8 LCL = 75 UCL = 125	PDS<LCL
		SWMU1TAA1-CW7-5	12 mg/Kg	J	%R = 69.9 LCL=75 UCL=125	SD<LCL

TABLE F4. Matrix Spike Precision/Accuracy - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	MS/MSD Qualifier*	MS Recovery	Criteria
SW6010B (SOIL)						
	Molybdenum	AOC10TAA2-CF10-2	1.1 mg/Kg	UJ	%R = 64 LCL=75 UCL=125	MS<LCL
		AOC10TAA2-CF10-2	1.1 mg/Kg	UJ	%R = 68.3 LCL=75 UCL=125	SD<LCL
		AOC10TAA2-CW18-5	1 mg/Kg	UJ	%R = 67.2 LCL=75 UCL=125	MS<LCL
		AOC10TAA2-CW18-5	1 mg/Kg	UJ	%R = 65.6 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CF1-5	1.1 mg/Kg	UJ	%R = 58.6 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CF1-5	1.1 mg/Kg	UJ	%R = 60.4 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CF2a-7	1.1 mg/Kg	UJ	%R = 68.4 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CF2a-7	1.1 mg/Kg	UJ	%R = 65.9 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CW10-3	1.1 mg/Kg	UJ	%R = 61.6 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CW10-3	1.1 mg/Kg	UJ	%R = 59.1 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CW1-3	1.1 mg/Kg	UJ	%R = 58.6 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CW1-3	1.1 mg/Kg	UJ	%R = 60.4 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CW16C-2	1 mg/Kg	UJ	%R = 69.9 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CW2-3	1.1 mg/Kg	UJ	%R = 58.6 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CW2-3	1.1 mg/Kg	UJ	%R = 60.4 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CW3-3	1.1 mg/Kg	UJ	%R = 58.6 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CW3-3	1.1 mg/Kg	UJ	%R = 60.4 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CW3-3FD	1.1 mg/Kg	UJ	%R = 58.6 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CW3-3FD	1.1 mg/Kg	UJ	%R = 60.4 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CW4-3	1.1 mg/Kg	UJ	%R = 58.6 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CW4-3	1.1 mg/Kg	UJ	%R = 60.4 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CW5-3	1.1 mg/Kg	UJ	%R = 58.6 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CW5-3	1.1 mg/Kg	UJ	%R = 60.4 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CW6-3	1.2 mg/Kg	UJ	%R = 67.2 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CW6-3	1.2 mg/Kg	UJ	%R = 67.8 LCL=75 UCL=125	SD<LCL
		AOC14TAA1-CW1-2	1.1 mg/Kg	UJ	%R = 69.6 LCL=75 UCL=125	MS<LCL
		AOC14TAA1-CW1-2	1.1 mg/Kg	UJ	%R = 67.1 LCL=75 UCL=125	SD<LCL
		AOC1TAA3-CF1-4	1 mg/Kg	UJ	%R = 74.4 LCL=75 UCL=125	SD<LCL
		AOC27TAA1-CW1-3	1.1 mg/Kg	UJ	%R = 74.3 LCL=75 UCL=125	MS<LCL
		AOC27TAA1-CW1-3	1.1 mg/Kg	UJ	%R = 73.8 LCL=75 UCL=125	SD<LCL
		SWMU1TAA1-CF5-8	1.1 mg/Kg	UJ	%R = 73.9 LCL=75 UCL=125	MS<LCL
		SWMU1TAA1-CF5-8	1.1 mg/Kg	UJ	%R = 74.3 LCL=75 UCL=125	SD<LCL
		SWMU1TAA1-CW6-6	1.1 mg/Kg	UJ	%R = 73.9 LCL=75 UCL=125	MS<LCL
		SWMU1TAA1-CW6-6	1.1 mg/Kg	UJ	%R = 74.3 LCL=75 UCL=125	SD<LCL
		SWMU1TAA1-CW7-5	1.1 mg/Kg	UJ	%R = 73.9 LCL=75 UCL=125	MS<LCL

TABLE F4. Matrix Spike Precision/Accuracy - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	MS/MSD Qualifier*	MS Recovery	Criteria
SW6010B (SOIL)						
	Molybdenum	SWMU1TAA1-CW7-5	1.1 mg/Kg	UJ	%R = 74.3 LCL=75 UCL=125	SD<LCL
	Zinc	AOC10TAA1-CF8-3	12 mg/Kg	J	%R = 66.4 LCL=75 UCL=125	MS<LCL
		AOC10TAA1-CF8-3	12 mg/Kg	J	%R=73.1 LCL=75 UCL=125	PDS<LCL
		AOC10TAA1-CF8-3	12 mg/Kg	J	%R = 72 LCL=75 UCL=125	SD<LCL
		AOC10TAA1-CF8-3	12 mg/Kg	J	%D = 23.93 vs 10	SerDil
		AOC10TAA1-CF8-3FD	11 mg/Kg	J	%R = 66.4 LCL=75 UCL=125	MS<LCL
		AOC10TAA1-CF8-3FD	11 mg/Kg	J	%R=73.1 LCL=75 UCL=125	PDS<LCL
		AOC10TAA1-CF8-3FD	11 mg/Kg	J	%R = 72 LCL=75 UCL=125	SD<LCL
		AOC10TAA1-CF8-3FD	11 mg/Kg	J	%D = 23.93 vs 10	SerDil
		AOC10TAA1-CW9-1.5	18 mg/Kg	J	%R = 66.4 LCL=75 UCL=125	MS<LCL
		AOC10TAA1-CW9-1.5	18 mg/Kg	J	%R=73.1 LCL=75 UCL=125	PDS<LCL
		AOC10TAA1-CW9-1.5	18 mg/Kg	J	%R = 72 LCL=75 UCL=125	SD<LCL
		AOC10TAA1-CW9-1.5	18 mg/Kg	J	%D = 23.93 vs 10	SerDil
		AOC10TAA2-CF10-2	42 mg/Kg	J	%R = 54.2 LCL=75 UCL=125	MS<LCL
		AOC10TAA2-CF17-6	27 mg/Kg	J	%R = 74.7 LCL=75 UCL=125	SD<LCL
		AOC10TAA2-CF21-5	44 mg/Kg	J	%R = 70 LCL=75 UCL=125	MS<LCL
		AOC10TAA2-CF21-5	44 mg/Kg	J	%R = 70.1 LCL=75 UCL=125	SD<LCL
		AOC10TAA2-CF3-5	44 mg/Kg	J	%R = 72.2 LCL=75 UCL=125	MS<LCL
		AOC10TAA2-CF3-5	44 mg/Kg	J	%R = 72.1 LCL=75 UCL=125	SD<LCL
		AOC10TAA2-CW18-5	48 mg/Kg	J	%R = 56.5 LCL=75 UCL=125	MS<LCL
		AOC10TAA2-CW18-5	48 mg/Kg	J	%R = 64.7 LCL=75 UCL=125	SD<LCL
		AOC10TAA2-CW28-2	79 mg/Kg	J	%R = 137 LCL=75 UCL=125	SD>UCL
		AOC10TAA3-CF1-2	49 mg/Kg	J	%R = 59.9 LCL=75 UCL=125	MS<LCL
		AOC10TAA3-CF1-2	49 mg/Kg	J	%R=65.6 LCL=75 UCL=125	PDS<LCL
		AOC10TAA3-CF1-2	49 mg/Kg	J	%R = 222 LCL=75 UCL=125	SD>UCL
		AOC10TAA3-CW1-1	51 mg/Kg	J	%R = 59.9 LCL=75 UCL=125	MS<LCL
		AOC10TAA3-CW1-1	51 mg/Kg	J	%R=65.6 LCL=75 UCL=125	PDS<LCL
		AOC10TAA3-CW1-1	51 mg/Kg	J	%R = 222 LCL=75 UCL=125	SD>UCL
		AOC10TAA3-CW2-2	42 mg/Kg	J	%R = 59.9 LCL=75 UCL=125	MS<LCL
		AOC10TAA3-CW2-2	42 mg/Kg	J	%R=65.6 LCL=75 UCL=125	PDS<LCL
		AOC10TAA3-CW2-2	42 mg/Kg	J	%R = 222 LCL=75 UCL=125	SD>UCL
	AOC10TAA3-CW3-2	50 mg/Kg	J	%R = 59.9 LCL=75 UCL=125	MS<LCL	
	AOC10TAA3-CW3-2	50 mg/Kg	J	%R=65.6 LCL=75 UCL=125	PDS<LCL	
	AOC10TAA3-CW3-2	50 mg/Kg	J	%R = 222 LCL=75 UCL=125	SD>UCL	
	AOC10TAA3-CW4-1	50 mg/Kg	J	%R = 59.9 LCL=75 UCL=125	MS<LCL	

TABLE F4. Matrix Spike Precision/Accuracy - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	MS/MSD Qualifier*	MS Recovery	Criteria
SW6010B (SOIL)						
Zinc						
		AOC10TAA3-CW4-1	50 mg/Kg	J	MSRPD = 50 Limit =20	MSRPD
		AOC10TAA3-CW4-1	50 mg/Kg	J	%R = 222 LCL=75 UCL=125	SD>UCL
		AOC10TAA4-CF1-5	40 mg/Kg	J	%R = 62.4 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CF1-5	40 mg/Kg	J	%R=63.4 LCL=75 UCL=125	PDS<LCL
		AOC10TAA4-CF1-5	40 mg/Kg	J	%R = 68.4 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CF2a-7	51 mg/Kg	J	%R = 65.3 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CF2a-7	51 mg/Kg	J	%R = 70.7 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CW10-3	52 mg/Kg	J	%R = 63.7 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CW10-3	52 mg/Kg	J	%R = 70.6 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CW1-3	55 mg/Kg	J	%R = 62.4 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CW1-3	55 mg/Kg	J	%R=63.4 LCL=75 UCL=125	PDS<LCL
		AOC10TAA4-CW1-3	55 mg/Kg	J	%R = 68.4 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CW16C-2	38 mg/Kg	J	%R = 58.1 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CW16C-2	38 mg/Kg	J	%R = 49.8 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CW2-3	56 mg/Kg	J	%R = 62.4 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CW2-3	56 mg/Kg	J	%R=63.4 LCL=75 UCL=125	PDS<LCL
		AOC10TAA4-CW2-3	56 mg/Kg	J	%R = 68.4 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CW3-3	100 mg/Kg	J	%R = 62.4 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CW3-3	100 mg/Kg	J	%R=63.4 LCL=75 UCL=125	PDS<LCL
		AOC10TAA4-CW3-3	100 mg/Kg	J	%R = 68.4 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CW3-3FD	100 mg/Kg	J	%R = 62.4 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CW3-3FD	100 mg/Kg	J	%R=63.4 LCL=75 UCL=125	PDS<LCL
		AOC10TAA4-CW3-3FD	100 mg/Kg	J	%R = 68.4 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CW4-3	61 mg/Kg	J	%R = 62.4 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CW4-3	61 mg/Kg	J	%R=63.4 LCL=75 UCL=125	PDS<LCL
		AOC10TAA4-CW4-3	61 mg/Kg	J	%R = 68.4 LCL=75 UCL=125	SD<LCL
		AOC10TAA4-CW5-3	150 mg/Kg	J	%R = 62.4 LCL=75 UCL=125	MS<LCL
		AOC10TAA4-CW5-3	150 mg/Kg	J	%R=63.4 LCL=75 UCL=125	PDS<LCL
		AOC10TAA4-CW5-3	150 mg/Kg	J	%R = 68.4 LCL=75 UCL=125	SD<LCL
		AOC11TAA1-CW-1-3	75 mg/Kg	J	%R = 49.4 LCL=75 UCL=125	MS<LCL
		AOC11TAA1-CW-1-3	75 mg/Kg	J	%R = 55.8 LCL=75 UCL=125	SD<LCL
		AOC11TAA1-CW-3-6	70 mg/Kg	J	%R = 49.4 LCL=75 UCL=125	MS<LCL
		AOC11TAA1-CW-3-6	70 mg/Kg	J	%R = 55.8 LCL=75 UCL=125	SD<LCL
		AOC11TAA1-CW-5-6	200 mg/Kg	J	%R = 49.4 LCL=75 UCL=125	MS<LCL
		AOC11TAA1-CW-5-6	200 mg/Kg	J	%R = 55.8 LCL=75 UCL=125	SD<LCL

TABLE F4. Matrix Spike Precision/Accuracy - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	MS/MSD Qualifier*	MS Recovery	Criteria
SW6010B (SOIL)						
	Zinc	AOC14TAA1-CF1a-10	33 mg/Kg	J	%R = 72 LCL=75 UCL=125	MS<LCL
		AOC14TAA1-CF1a-10	33 mg/Kg	J	%R = 70.7 LCL=75 UCL=125	SD<LCL
		AOC14TAA1-CW1-2	1.4 mg/Kg	J	%R = 52.1 LCL=75 UCL=125	MS<LCL
		AOC14TAA1-CW1-2	1.4 mg/Kg	J	%R = 49.5 LCL=75 UCL=125	SD<LCL
		AOC16TAA1-CW1a-0.5	33 mg/Kg	J	%R = 73.1 LCL=75 UCL=125	MS<LCL
		AOC1TAA2-CW12-3	45 mg/Kg	J	%R = 65.8 LCL=75 UCL=125	MS<LCL
		AOC1TAA2-CW8-7	40 mg/Kg	J	%R = 67.1 LCL=75 UCL=125	MS<LCL
		AOC1TAA3-CF1-4	33 mg/Kg	J	%R = 68.3 LCL=75 UCL=125	MS<LCL
		AOC1TAA3-CF1-4	33 mg/Kg	J	%R = 69.1 LCL=75 UCL=125	SD<LCL
		AOC27TAA1-CW1-3	46 mg/Kg	J	%R = 72 LCL=75 UCL=125	MS<LCL
		AOC9TAA1-CF1-3	49 mg/Kg	J	%R = 134 LCL=75 UCL=125	MS>UCL
		LowerSpy-PS10a-2024	46 mg/Kg	J	%D=16.05% vs 10%	SerDil
		LowerSpy-PS10b-2024	32 mg/Kg	J	%D=17.93% vs. 10%	SerDil
		LowerSpy-PS13a-2024	41 mg/Kg	J	%D=23.88% vs. 10%	SerDil
		LowerSpy-PS16b-2024	38 mg/Kg	J	%D=17.93% vs. 10%	SerDil
		LowerSpy-PS16c-2024	26 mg/Kg	J	%R = 74.3 LCL=75 UCL=125	MS<LCL
		LowerSpy-PS16c-2024	26 mg/Kg	J	%D=26.87% vs. 10%	SerDil
		LowerSpy-PS17-2024	35 mg/Kg	J	%D=12.02% vs 10%	SerDil
		LowerSpy-PS18-2024	34 mg/Kg	J	%R = 73.1 LCL=75 UCL=125	MS<LCL
		LowerSpy-PS18-2024	34 mg/Kg	J	%D=16.44% vs 10%	SerDil
		LowerSpy-PS19-2024	32 mg/Kg	J	%D=16.44% vs 10%	SerDil
		LowerSpy-PS19-2024FD	38 mg/Kg	J	%D=16.44% vs. 10%	SerDil
		LowerSpy-PS20-2024	33 mg/Kg	J	%D=16.44% vs 10%	SerDil
		LowerSpy-PS21-2024	35 mg/Kg	J	%D=77.97% vs. 10%	SerDil
		LowerSpy-PS22-2024	52 mg/Kg	J	%D=12.02% vs 10%	SerDil
		LowerSpy-PS3a-2024	52 mg/Kg	J	%D=17.93% vs. 10%	SerDil
		LowerSpy-PS3a-2024FD	34 mg/Kg	J	%D=17.93% vs. 10%	SerDil
		LowerSpy-PS4-2024	31 mg/Kg	J	%D=16.05% vs 10%	SerDil
		LowerSpy-PS6Nb-2024	32 mg/Kg	J	%D=17.93% vs. 10%	SerDil
		LowerSpy-PS6Sb-2024	27 mg/Kg	J	%D=23.88% vs. 10%	SerDil
		LowerSpy-PS8a-2024	19 mg/Kg	J	%D=16.05% vs 10%	SerDil
		LowerSpy-PS8a-2024FD	21 mg/Kg	J	%D=16.05% vs 10%	SerDil
		LowerSpy-PS9a-2024	21 mg/Kg	J	%D=16.05% vs 10%	SerDil
		SWMU1TAA1-CF1-10	65 mg/Kg	J	%R = 169 LCL=75 UCL=125	MS>UCL
		SWMU1TAA1-CF1-10	65 mg/Kg	J	%R = 160 LCL=75 UCL=125	SD>UCL

TABLE F4. Matrix Spike Precision/Accuracy - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	MS/MSD Qualifier*	MS Recovery	Criteria
SW6010B (SOIL)						
Zinc		SWMU1TAA1-CF13-10	240 mg/Kg	J	Ser Dil > 10%. Flag as est	SerDil
		SWMU1TAA1-CF5-8	39 mg/Kg	J	%R = 63.4 LCL=75 UCL=125	MS<LCL
		SWMU1TAA1-CF5-8	39 mg/Kg	J	%R=66.6 LCL = 75 UCL = 125	PDS<LCL
		SWMU1TAA1-CF5-8	39 mg/Kg	J	%R = 56.7 LCL=75 UCL=125	SD<LCL
		SWMU1TAA1-CF5-8	39 mg/Kg	J	%D = 28.4 vs 10	SerDil
		SWMU1TAA1-CW6-6	51 mg/Kg	J	%R = 63.4 LCL=75 UCL=125	MS<LCL
		SWMU1TAA1-CW6-6	51 mg/Kg	J	%R=66.6 LCL = 75 UCL = 125	PDS<LCL
		SWMU1TAA1-CW6-6	51 mg/Kg	J	%R = 56.7 LCL=75 UCL=125	SD<LCL
		SWMU1TAA1-CW6-6	51 mg/Kg	J	%D = 28.4 vs 10	SerDil
		SWMU1TAA1-CW7-5	73 mg/Kg	J	%R = 63.4 LCL=75 UCL=125	MS<LCL
		SWMU1TAA1-CW7-5	73 mg/Kg	J	%R=66.6 LCL = 75 UCL = 125	PDS<LCL
		SWMU1TAA1-CW7-5	73 mg/Kg	J	%R = 56.7 LCL=75 UCL=125	SD<LCL
		SWMU1TAA1-CW7-5	73 mg/Kg	J	%D = 28.4 vs 10	SerDil
		UpperSpy-PS1-2024	36 mg/Kg	J	%D=77.97% vs. 10%	SerDil
		UpperSpy-PS2-2024	32 mg/Kg	J	%D=77.97% vs. 10%	SerDil
		UpperSpy-PS3-2024	34 mg/Kg	J	%D=12.02% vs 10%	SerDil
		UpperSpy-PS3-2024FD	31 mg/Kg	J	%D=12.02% vs 10%	SerDil
		UpperSpy-PS4-2024	36 mg/Kg	J	%D=12.02% vs 10%	SerDil
		UpperSpy-PS5-2024	39 mg/Kg	J	%D=12.02% vs 10%	SerDil
		UpperSpy-PS6-2024	38 mg/Kg	J	%D=12.02% vs 10%	SerDil
	UpperSpy-PS7-2024	39 mg/Kg	J	%D=12.02% vs 10%	SerDil	
SW7199 (SOIL)						
Chromium, hexavalent		AOC1TAA3-CF1-4	1.8 mg/Kg	J	%R = 57.2 LCL=75 UCL=125	MS<LCL
		AOC1TAA3-CF1-4	1.8 mg/Kg	J	MSRPD = 32.65 Limit =20	MSRPD
		AOC1TAA3-CF1-4	1.8 mg/Kg	J	%R = 72.5 LCL=75 UCL=125	SD<LCL
		SWMU1TAA1-CW40-4	0.25 mg/Kg	UJ	%R = 42.6 LCL=75 UCL=125	SD<LCL
		SWMU1TAA3-CW4a-1.5	0.3 mg/Kg	J	MSRPD = 23.08 Limit =20	MSRPD
		SWMU1TAA3-CW4a-1.5	0.3 mg/Kg	J	%R = 131 LCL=75 UCL=125	SD>UCL
SW7471A (SOIL)						
Mercury		AOC10TAA2-CW1-4	0.22 mg/Kg	J	%R=145 LCL=85 UCL=115	PDS>UCL
		AOC10TAA2-CW1-4	0.22 mg/Kg	J	%R = 163 LCL=75 UCL=125	SD>UCL
		AOC10TAA2-CW3-4	0.12 mg/Kg	J	%R=145 LCL=85 UCL=115	PDS>UCL
		AOC10TAA2-CW3-4	0.12 mg/Kg	J	%R = 163 LCL=75 UCL=125	SD>UCL
SW8290 (Soil)						

TABLE F4. Matrix Spike Precision/Accuracy - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	MS/MSD Qualifier*	MS Recovery	Criteria
SW8290 (Soil)						
1,2,3,4,6,7,8-Heptachlorodibenzofuran	AOC10TAA1-CF14-5FD	83 ng/Kg	U	PCDE interference. Flag as ND	Interference	
	AOC10TAA1-CF8-3	0.21 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	AOC10TAA1-CF8-3FD	0.16 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	AOC10TAA1-CW16-3	2200 ng/Kg	U	PCDE interference. Flag as ND	Interference	
	AOC10TAA1-CW17-3	390 ng/Kg	U	PCDE interference. Flag as ND	Interference	
	AOC10TAA1-CW18-3	200 ng/Kg	U	PCDE interference. Flag as ND	Interference	
	AOC10TAA1-CW4-2	2.2 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	AOC10TAA2-CF13-4	10 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	AOC10TAA2-CF21-5	1.2 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	AOC10TAA2-CF22a-3	2.2 ng/Kg	U	PCDE interference. Flag as ND	Interference	
	AOC10TAA2-CF22a-3FD	3.4 ng/Kg	U	PCDE interference. Flag as ND	Interference	
	AOC10TAA2-CF8a-5	2.3 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	AOC10TAA2-CW12b-5	4.2 ng/Kg	U	PCDE interference. Flag as ND	Interference	
	AOC10TAA2-CW26a-2	0.34 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	AOC10TAA3-CW3-2	4.6 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	AOC10TAA4-CF4-3	0.9 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	AOC14TAA1-CW12-5	0.94 ng/Kg	U	PCDE interference. Flag as ND	Interference	
	AOC1TAA1-CF1a-7	570 ng/Kg	U	PCDE interference. Flag as ND	Interference	
	AOC1TAA1-CW1a-5	1700 ng/Kg	U	PCDE interference. Flag as ND	Interference	
	AOC1TAA1-CW2a-5	1200 ng/Kg	U	PCDE interference. Flag as ND	Interference	
	AOC1TAA1-CW3a-5	2200 ng/Kg	U	PCDE interference. Flag as ND	Interference	
	AOC1TAA1-CW4a-5	920 ng/Kg	U	PCDE interference. Flag as ND	Interference	
	AOC1TAA2-CW2-5	5.7 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	LowerSpy-PS10b-2024	0.14 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	SWMU1TAA1-CW1-5	0.13 ng/Kg	U	Ion ratio criteria not met. Flag as ND	EMPC	
	SWMU1TAA1-CW18-6	180 ng/Kg	U	PCDE interference. Flag as ND	Interference	
	SWMU1TAA1-CW19-5	21 ng/Kg	U	PCDE interference. Flag as ND	Interference	
	SWMU1TAA1-CW4-5	0.49 ng/Kg	U	PCDE interference. Flag as ND	Interference	
	SWMU1TAA2-CF1-4	4.9 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	AOC10TAA2-CW26a-2FD	3.5 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC14TAA1-CW10-5	120 ng/Kg	J	%R = 164 LCL = 50 UCL = 130	SD>UCL
		LowerSpy-PS22a-2024	0.4 ng/Kg	U	Ion ratio criteria not met; Flag as ND	EMPC
	1,2,3,4,7,8,9-Heptachlorodibenzofuran	AOC10TAA2-CF18-7	0.49 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
AOC10TAA2-CF24-0		0.94 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	

TABLE F4. Matrix Spike Precision/Accuracy - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	MS/MSD Qualifier*	MS Recovery	Criteria
SW8290 (Soil)						
	1,2,3,4,7,8,9-Heptachlorodibenzofuran	AOC10TAA2-CF5-5	0.39 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CF7a-1	0.43 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW16a-4	2.1 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW16a-FD-4	2.3 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW37-3	0.92 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW38-4	0.44 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW41-2FD	1.2 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW7-4	0.39 ng/Kg	U	lon ratio criteria not met. Flag as ND	EMPC
		AOC10TAA2-CW7-4FD	0.29 ng/Kg	U	lon ratio criteria not met. Flag as ND	EMPC
		AOC10TAA3-CW2-2	0.17 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC11TAA1-CW7a-4	9.2 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC14TAA1-CF2a-13	2.4 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC14TAA1-CF3a-13	4.8 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC14TAA1-CW1-2	0.48 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC14TAA1-CW2-4	0.29 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC16TAA1-CW1a-0.5	1.4 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC16TAA1-CW2-0.5	0.96 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC16TAA1-CW3-0.5	0.49 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC1TAA2-CF1-10	0.4 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC27TAA1-CF1-5	1.1 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC27TAA1-CF2-7	0.57 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		LowerSpy-PS19-2024FD	0.18 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CF12-10	0.16 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CF5-8	4.7 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CW13-4	0.18 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CW17-5	0.26 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CW26a-5	1.2 ng/Kg	U	PCDE interference. Flag as ND	Interference
		SWMU1TAA1-CW32-4	17 ng/Kg	U	PCDE interference. Flag as ND	Interference
		SWMU1TAA1-CW32a-4	17 ng/Kg	U	PCDE interference. Flag as ND	Interference
		SWMU1TAA1-CW32a-4FD	12 ng/Kg	U	PCDE interference. Flag as ND	Interference
		SWMU1TAA1-CW34-4	2.4 ng/Kg	U	PCDE interference. Flag as ND	Interference
		SWMU1TAA1-CW35-5	1.7 ng/Kg	U	PCDE interference. Flag as ND	Interference
		SWMU1TAA1-CW8-2FD	3.6 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		SWMU1TAA2-CW6-1.5	0.47 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
	SWMU1TAA2-CW6-FD-1.5	0.3 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC	

TABLE F4. Matrix Spike Precision/Accuracy - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	MS/MSD Qualifier*	MS Recovery	Criteria
SW8290 (Soil)						
	1,2,3,4,7,8,9-Heptachlorodibenzofuran	SWMU1TAA2-CW7-3	0.15 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		UpperSpy-PS3-2024	1.1 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		UpperSpy-PS5-2024	0.25 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	1,2,3,4,7,8-Hexachlorodibenzofuran	AOC10TAA1-CF13-5	7.5 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA1-CF6-3	0.95 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA1-CW12-3	0.062 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA1-CW16-3	44 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA1-CW17-3	12 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA1-CW18-3	5 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA2-CF22a-3	0.89 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA2-CF22a-3FD	0.75 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA2-CF23-0	0.3 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW12b-5	0.89 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA2-CW14-3	2 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW16a-4	0.78 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW16a-FD-4	0.66 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW21a-3	5 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW28a-3	2.7 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA2-CW35-3	0.48 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW35-3FD	0.35 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW36-2	5 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW39-2	0.51 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA3-CW2-2	0.11 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA3-CW3-2	0.28 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC11TAA1-CF-1-7.5	27 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC11TAA1-CF-2-7.5	11 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC11TAA1-CF-2-7.5FD	28 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC11TAA1-CF-3-10	79 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC11TAA1-CW-3-6	22 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC11TAA1-CW8-3	2 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC14TAA1-CF1a-10	0.56 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC14TAA1-CF4-6	0.81 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC14TAA1-CW10-5	1.6 ng/Kg	U	PCDE interference. Flag as ND	Interference
	AOC14TAA1-CW1-2	0.26 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	AOC14TAA1-CW2-4	0.17 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	

TABLE F4. Matrix Spike Precision/Accuracy - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	MS/MSD Qualifier*	MS Recovery	Criteria
SW8290 (Soil)						
1,2,3,4,7,8-Hexachlorodibenzofuran	AOC16TAA1-CW1a-0.5		1.8 ng/Kg	U	PCDE interference. Flag as ND	Interference
	AOC1TAA1-CF1a-7		9.9 ng/Kg	U	PCDE interference. Flag as ND	Interference
	AOC1TAA1-CW4a-5		49 ng/Kg	U	PCDE interference. Flag as ND	Interference
	AOC27TAA1-CW1-3FD		0.66 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	LowerSpy-PS20-2024		2.9 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	LowerSpy-PS9a-2024		0.14 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	SWMU1TAA1-CF11-10		0.18 ng/Kg	U	PCDE interference. Flag as ND	Interference
	SWMU1TAA1-CF12-10FD		0.35 ng/Kg	U	PCDE interference. Flag as ND	Interference
	SWMU1TAA1-CF14-10		130 ng/Kg	U	PCDE interference. Flag as ND	Interference
	SWMU1TAA1-CF17-10		0.92 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	SWMU1TAA1-CF18-10		2 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	SWMU1TAA1-CF19-10		2.5 ng/Kg	U	PCDE interference. Flag as ND	Interference
	SWMU1TAA1-CF5-8		2.2 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	SWMU1TAA1-CF6-4		1.2 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	SWMU1TAA1-CW11-1		0.92 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	SWMU1TAA1-CW14-5		0.23 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	SWMU1TAA1-CW16-5		0.12 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	SWMU1TAA1-CW17-5		0.23 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	SWMU1TAA1-CW20a-5		2.7 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	SWMU1TAA1-CW24a-5		2.9 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	SWMU1TAA1-CW26a-5		0.39 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	SWMU1TAA1-CW2a-5		25 ng/Kg	U	PCDE interference. Flag as ND	Interference
	SWMU1TAA1-CW3a-5		0.99 ng/Kg	U	PCDE interference. Flag as ND	Interference
	SWMU1TAA1-CW5-5		0.25 ng/Kg	U	Ion ratio criteria not met. Flag as ND	EMPC
	SWMU1TAA1-CW6-6		22 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	SWMU1TAA1-CW7a-5		6.4 ng/Kg	U	PCDE interference. Flag as ND	Interference
	SWMU1TAA1-CW9-2		1.6 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	SWMU1TAA2-CF3-4		0.087 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	SWMU1TAA2-CW2-3		0.37 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	SWMU1TAA2-CW6-FD-1.5		0.09 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	SWMU1TAA2-CW7-3		0.095 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	UpperSpy-PS7R-2024		0.37 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	AOC10TAA1-CF10-3		4.8 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	AOC10TAA1-CF4-3		0.24 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	AOC10TAA1-CF8-3FD		0.17 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC

TABLE F4. Matrix Spike Precision/Accuracy - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	MS/MSD Qualifier*	MS Recovery	Criteria
SW8290 (Soil)						
	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	AOC10TAA1-CW11-2.5	4.9 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC10TAA1-CW12-3FD	4.7 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC10TAA1-CW19-3	0.27 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC10TAA1-CW5-2	0.42 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC10TAA1-CW7-2	0.24 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CF13-4	0.65 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CF17-6	5.1 ng/Kg	U	lonRatio criteria not met; flag as ND	EMPC
		AOC10TAA2-CF21-5	4.6 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CF23-0	0.44 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CF5-5	0.36 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CF7a-1	0.33 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW10a-5	0.36 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW25a-3	5.1 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW26a-2	4.5 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW35-3	0.67 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW35-3FD	5.1 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW39-2	4.9 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW7-4	0.25 ng/Kg	U	lon ratio criteria not met. Flag as ND	EMPC
		AOC10TAA3-CW3-2	4.6 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC10TAA4-CF4-3	4.9 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC10TAA4-CW12b-1	4.9 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC10TAA4-CW12b-1FD	4.9 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC14TAA1-CW12-5	0.17 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC14TAA1-CW1a-1	4.9 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC1TAA2-CF1-10	4.9 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC27TAA1-CF2-7	1.4 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC27TAA1-CW2-3	0.55 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC27TAA1-CW3-4	1 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC27TAA1-CW4-1.5	0.99 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		AOC27TAA1-CW5-3	0.81 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		LowerSpy-PS10b-2024	4.1 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		LowerSpy-PS11a-2024	3.3 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
		LowerSpy-PS14a-2024	4.5 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC
	LowerSpy-PS15a-2024	4.3 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC	
	LowerSpy-PS18-2024	3.6 ng/Kg	U	lon ratio criteria not met; flag as ND	EMPC	

TABLE F4. Matrix Spike Precision/Accuracy - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	MS/MSD Qualifier*	MS Recovery	Criteria
SW8290 (Soil)						
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	LowerSpy-PS20-2024	2.9 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	LowerSpy-PS21-2024	4.3 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	LowerSpy-PS2-2024	4.9 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	LowerSpy-PS3a-2024FD	3.7 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	LowerSpy-PS6Na-2024	4.8 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	SWMU1TAA1-CF17-10	1.7 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	SWMU1TAA1-CF21-5	4.8 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	SWMU1TAA1-CF5-8	2.4 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	SWMU1TAA1-CW12-2	0.19 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	SWMU1TAA1-CW1-5	0.12 ng/Kg	U	Ion ratio criteria not met. Flag as ND	EMPC	
	SWMU1TAA1-CW15-2	5.1 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	SWMU1TAA1-CW1-5FD	0.11 ng/Kg	U	Ion ratio criteria not met. Flag as ND	EMPC	
	SWMU1TAA1-CW16-5	4.2 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	SWMU1TAA1-CW24a-5	2.1 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	SWMU1TAA1-CW36-3FD	4.9 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	SWMU1TAA1-CW39-4	4.7 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	SWMU1TAA1-CW40-4	0.47 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	SWMU1TAA2-CW1-3	1.5 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	SWMU1TAA2-CW4-1.5FD	5 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	UpperSpy-PS3-2024FD	4 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	UpperSpy-PS7R-2024	0.35 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	1,2,3,6,7,8-Hexachlorodibenzofuran	AOC10TAA1-CF1-3	3.4 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA2-CF10-2	5.5 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CF11-3.5	19 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CF15a-1	7.5 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA2-CF24-0	0.98 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA2-CF7a-1	0.64 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA2-CF8a-5	2 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA2-CW17-4	0.84 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW25a-3	0.13 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW26-2	5.8 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW26a-2	0.1 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW30a-5	12 ng/Kg	U	PCDE interference. Flag as ND	Interference
AOC10TAA2-CW30a-5FD		14 ng/Kg	U	PCDE interference. Flag as ND	Interference	
AOC10TAA2-CW35-3		0.51 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	

TABLE F4. Matrix Spike Precision/Accuracy - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	MS/MSD Qualifier*	MS Recovery	Criteria
SW8290 (Soil)						
	1,2,3,6,7,8-Hexachlorodibenzofuran	AOC10TAA2-CW35-3FD	0.16 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW41-2	1.4 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA2-CW41-2FD	3.5 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA3-CW2-2	0.073 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA4-CF2a-7	0.41 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA4-CF5-0	1 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA4-CW12a-1	48 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA4-CW12b-1	0.17 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA4-CW16a-1	56 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA4-CW5-3	260 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA4-CW6-3	240 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC11TAA1-CF5-7	0.14 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC11TAA1-CF7-7	1.5 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC14TAA1-CF4-6	0.44 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC14TAA1-CW10-5	0.44 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC14TAA1-CW2-4	0.16 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC14TAA1-CW4-4	0.66 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC1TAA2-CF3-10	19 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC1TAA2-CW6a-6	4.5 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC27TAA1-CW1-3	0.46 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC27TAA1-CW1-3FD	0.37 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC27TAA1-CW2-3	4.9 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC27TAA1-CW3-4	5 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC27TAA1-CW5-3	0.7 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC9TAA1-CW1-2	0.48 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		LowerSpy-PS10a-2024	23 ng/Kg	U	PCDE interference. Flag as ND	Interference
		LowerSpy-PS16b-2024	1.8 ng/Kg	U	PCDE interference. Flag as ND	Interference
		LowerSpy-PS16c-2024	1.7 ng/Kg	U	PCDE interference. Flag as ND	Interference
		LowerSpy-PS18-2024	1.1 ng/Kg	U	PCDE interference. Flag as ND	Interference
		LowerSpy-PS19-2024FD	3.5 ng/Kg	U	PCDE interference. Flag as ND	Interference
		LowerSpy-PS20-2024	2.9 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		LowerSpy-PS4-2024	0.59 ng/Kg	U	PCDE interference. Flag as ND	Interference
		LowerSpy-PS8a-2024FD	0.086 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CF11-10	0.091 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	SWMU1TAA1-CF12-10	0.2 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	

TABLE F4. Matrix Spike Precision/Accuracy - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	MS/MSD Qualifier*	MS Recovery	Criteria	
SW8290 (Soil)							
1,2,3,6,7,8-Hexachlorodibenzofuran		SWMU1TAA1-CF17-10	1.2 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		SWMU1TAA1-CF5-8	1.9 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		SWMU1TAA1-CW17-5	0.23 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		SWMU1TAA1-CW24a-5	1 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		SWMU1TAA1-CW27-5	0.48 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		SWMU1TAA1-CW27-FD	1.3 ng/Kg	U	PCDE interference. Flag as ND	Interference	
		SWMU1TAA1-CW29a-4	11 ng/Kg	U	PCDE interference. Flag as ND	Interference	
		SWMU1TAA1-CW32a-4	14 ng/Kg	U	PCDE interference. Flag as ND	Interference	
		SWMU1TAA1-CW3a-5	0.36 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		SWMU1TAA1-CW5-5	0.11 ng/Kg	U	Ion ratio criteria not met. Flag as ND	EMPC	
		SWMU1TAA1-CW6-6	11 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		SWMU1TAA1-CW8-2FD	2.3 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		SWMU1TAA1-CW9-2	0.98 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		SWMU1TAA2-CW2-3	0.21 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		SWMU1TAA3-CW4-2	28 ng/Kg	U	PCDE interference. Flag as ND	Interference	
	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin		AOC10TAA1-CF9-3	0.18 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
			AOC10TAA1-CW11-2.5	0.13 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA1-CW7-2	0.41 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		AOC10TAA2-CF13-4	2.5 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		AOC10TAA2-CF7a-1	0.79 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		AOC10TAA2-CW10a-5	0.37 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		AOC10TAA2-CW12b-5	0.53 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		AOC10TAA2-CW17-4	0.69 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		AOC10TAA2-CW26a-2	0.13 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		AOC10TAA2-CW36-2	1.1 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		AOC10TAA2-CW41-2FD	1.9 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		AOC10TAA4-CW12b-1	0.37 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		AOC1TAA2-CF1-10	0.38 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		AOC27TAA1-CF2-7	2.5 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		AOC27TAA1-CW2-3	0.57 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		AOC27TAA1-CW3-4	2.1 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		AOC27TAA1-CW4-1.5	1.7 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		LowerSpy-PS19-2024	0.53 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		LowerSpy-PS20-2024	0.063 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		LowerSpy-PS2-2024	0.15 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	

TABLE F4. Matrix Spike Precision/Accuracy - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	MS/MSD Qualifier*	MS Recovery	Criteria
SW8290 (Soil)						
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	LowerSpy-PS6Sb-2024		0.58 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	SWMU1TAA1-CF10a-7		1 ng/Kg	U	IonRatio criteria not met; flag as ND	EMPC
	SWMU1TAA1-CW15-2		0.11 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	SWMU1TAA1-CW16-5		0.28 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	SWMU1TAA1-CW40-4		0.21 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	SWMU1TAA2-CF3-4		0.17 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	SWMU1TAA2-CW7-3		0.48 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	UpperSpy-PS2-2024		0.47 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
1,2,3,7,8,9-Hexachlorodibenzofuran	AOC10TAA1-CF10-3		4.8 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	AOC10TAA1-CF13-5		1.6 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	AOC10TAA1-CF14-5FD		1 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	AOC10TAA1-CF2-0		32 ng/Kg	U	PCDE interference. Flag as ND	Interference
	AOC10TAA1-CW1-2		4.8 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	AOC10TAA1-CW12-3		5 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	AOC10TAA1-CW12-3FD		4.7 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	AOC10TAA1-CW2-2		4.9 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	AOC10TAA2-CF15-6		3.8 ng/Kg	U	PCDE interference. Flag as ND	Interference
	AOC10TAA2-CF16-5		3.8 ng/Kg	U	PCDE interference. Flag as ND	Interference
	AOC10TAA2-CF19-5		0.59 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	AOC10TAA2-CF7a-1		4.4 ng/Kg	U	IonRatio criteria not met; flag as ND	EMPC
	AOC10TAA2-CW21a-3		0.15 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	AOC10TAA2-CW31-4		1.5 ng/Kg	U	PCDE interference. Flag as ND	Interference
	AOC10TAA2-CW32-2		1.7 ng/Kg	U	PCDE interference. Flag as ND	Interference
	AOC10TAA2-CW33-2		4.9 ng/Kg	U	PCDE interference. Flag as ND	Interference
	AOC10TAA2-CW33-2FD		5 ng/Kg	U	PCDE interference. Flag as ND	Interference
	AOC10TAA2-CW37-3		0.39 ng/Kg	U	PCDE interference. Flag as ND	Interference
	AOC10TAA2-CW38-4		0.23 ng/Kg	U	PCDE interference. Flag as ND	Interference
	AOC10TAA2-CW39-2		0.96 ng/Kg	U	PCDE interference. Flag as ND	Interference
	AOC10TAA2-CW40-6		1.8 ng/Kg	U	PCDE interference. Flag as ND	Interference
	AOC10TAA3-CF1-2		4.3 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	AOC10TAA4-CF2-5		99 ng/Kg	U	PCDE interference. Flag as ND	Interference
	AOC10TAA4-CF7-2		0.44 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	AOC10TAA4-CW11-3		22 ng/Kg	U	PCDE interference. Flag as ND	Interference
	AOC10TAA4-CW14-1		2.4 ng/Kg	U	PCDE interference. Flag as ND	Interference
	AOC10TAA4-CW18-1		0.48 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC

TABLE F4. Matrix Spike Precision/Accuracy - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	MS/MSD Qualifier*	MS Recovery	Criteria
SW8290 (Soil)						
	1,2,3,7,8,9-Hexachlorodibenzofuran	AOC10TAA4-CW7-2	0.96 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC11TAA1-CW6a-4FD	11 ng/Kg	U	Incorrect isotope ratios. Flag as ND	EMPC
		AOC14TAA1-CW3-4	5 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC16TAA1-CF1-1	0.34 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC16TAA1-CW2-0.5	0.53 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC16TAA1-CW4-0.5	0.39 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC1TAA1-CW1b-5	18 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC1TAA1-CW1c-5	3.6 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC1TAA1-CW1d-5	3.2 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC1TAA1-CW2b-5	17 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC1TAA2-CF2-10	2.2 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC1TAA2-CW12-3FD	5.1 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC1TAA2-CW1-5.5	1.1 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC1TAA2-CW3-5	7.5 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC1TAA2-CW7-8	0.93 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC27TAA1-CW1-3	0.28 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC9TAA1-CF1-3	2.4 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC9TAA1-CW2-2	14 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC9TAA1-CW3-2	5.3 ng/Kg	U	PCDE interference. Flag as ND	Interference
		LowerSpy-PS16a-2024	0.6 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		LowerSpy-PS20-2024	2.9 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CF11-10	4.2 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CF16-10	4.2 ng/Kg	U	PCDE interference. Flag as ND	Interference
		SWMU1TAA1-CF19-10	4.8 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CF20-10	0.29 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CF2-10	0.12 ng/Kg	U	Ion ratio criteria not met. Flag as ND	EMPC
		SWMU1TAA1-CF6-4	0.34 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CW10a-2	5 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CW11-1	1.6 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CW12-2	0.62 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CW14-5	5.3 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CW15-2	5.1 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CW1-5FD	0.1 ng/Kg	U	Ion ratio criteria not met. Flag as ND	EMPC
		SWMU1TAA1-CW16-5	4.2 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	SWMU1TAA1-CW20a-5	1.5 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	

TABLE F4. Matrix Spike Precision/Accuracy - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	MS/MSD Qualifier*	MS Recovery	Criteria
SW8290 (Soil)						
1,2,3,7,8,9-Hexachlorodibenzofuran		SWMU1TAA1-CW21-6	0.69 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CW22-6	0.44 ng/Kg	U	PCDE interference. Flag as ND	Interference
		SWMU1TAA1-CW23-2	5.3 ng/Kg	U	PCDE interference. Flag as ND	Interference
		SWMU1TAA1-CW30-5	1 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CW35-5	0.47 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CW38-4	0.19 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CW7a-5	2.4 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CW8-2FD	0.9 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA2-CW1-3	0.95 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA2-CW5-3	5.3 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA2-CW6-1.5	5.1 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA2-CW7-3	5 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA3-CF1a-3	3.8 ng/Kg	U	PCDE interference. Flag as ND	Interference
	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin		AOC10TAA1-CF4-3	0.4 ng/Kg	U	Ion ratio criteria not met; flag as ND
		AOC10TAA1-CF6-3	2.3 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA1-CW11-2.5	0.061 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA1-CW1-2	0.63 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA1-CW5-2FD	0.43 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CF19-5	0.26 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CF22a-3	0.2 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CF22a-3FD	0.46 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW10a-5	0.36 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW16a-4	0.77 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW35-3	1.6 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW39-2	1.1 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW41-2	0.29 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA4-CF2a-7	0.67 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA4-CF3-3	0.33 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA4-CW12b-1	0.26 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC11TAA1-CF7-7	4.2 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC11TAA1-CW11a-4	2.3 ng/Kg	U	Incorrect isotope ratios. Flag as ND	EMPC
		AOC11TAA1-CW8-3	1.1 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC14TAA1-CF1a-10	0.79 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC14TAA1-CF4-6	5.2 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC14TAA1-CW1-2	0.59 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC

TABLE F4. Matrix Spike Precision/Accuracy - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	MS/MSD Qualifier*	MS Recovery	Criteria
SW8290 (Soil)						
	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	AOC14TAA1-CW2-4	0.37 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC27TAA1-CF2-7	2.6 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC27TAA1-CW3-4	1.1 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC27TAA1-CW4-1.5	1.1 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		LowerSpy-PS14a-2024	0.28 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		LowerSpy-PS20-2024	2.9 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		LowerSpy-PS2-2024	0.052 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		LowerSpy-PS3a-2024FD	0.38 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CF10a-7	0.46 ng/Kg	U	IonRatio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CF12-10FD	0.36 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CW10a-2	0.19 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CW13-4	0.24 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CW24a-5	2.8 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CW40-4	0.16 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CW5-5	0.22 ng/Kg	U	Ion ratio criteria not met. Flag as ND	EMPC
		SWMU1TAA1-CW8-2FD	6.7 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CW9-2	3.2 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA2-CW4-1.5FD	0.11 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA2-CW6-FD-1.5	0.14 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA2-CW7-3	0.21 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA2-CW8-3	0.15 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA3-CW5-2	0.31 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		UpperSpy-PS3-2024FD	0.44 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		UpperSpy-PS5-2024	0.28 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	1,2,3,7,8-Pentachlorodibenzofuran	AOC10TAA1-CF12-5	0.52 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA1-CF2-0	19 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA1-CW18-3	0.41 ng/Kg	U	Ion ratio criteria not met. Flag as ND	EMPC
		AOC10TAA1-CW3-0.5	0.23 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA1-CW5-2	0.24 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CF11-3.5	0.53 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CF12-4	0.98 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA2-CF14a-6	2.8 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CF15-6	2.7 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA2-CF16-5	3.8 ng/Kg	U	PCDE interference. Flag as ND	Interference
	AOC10TAA2-CF17-6	1.7 ng/Kg	U	PCDE interference. Flag as ND	Interference	

TABLE F4. Matrix Spike Precision/Accuracy - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	MS/MSD Qualifier*	MS Recovery	Criteria
SW8290 (Soil)						
	1,2,3,7,8-Pentachlorodibenzofuran	AOC10TAA2-CF3-5	3.7 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA2-CW20-1FD	52 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA2-CW22a-3	0.11 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW24-2	1.1 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA2-CW25a-3	0.32 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA2-CW26-2	2.1 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW28a-3	19 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA2-CW2a-4	0.22 ng/Kg	U	Ion ratio criteria not met. Flag as ND	EMPC
		AOC10TAA2-CW31-4	1.3 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA2-CW33-2	0.29 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA2-CW33-2FD	0.39 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA2-CW34-3	17 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA2-CW35-3	0.32 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW35-3	0.32 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA2-CW35-3FD	0.32 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA3-CF1-2	0.062 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA3-CW1-1	1.7 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA4-CF2-5	470 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA4-CF3-3	2.6 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA4-CF7-2	0.37 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA4-CW10-3	3 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA4-CW11-3	35 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA4-CW12a-1	25 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA4-CW13-2	40 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA4-CW14-1	5.6 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA4-CW15-1	2.5 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA4-CW16-1	16 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA4-CW16b-2.5	14 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA4-CW17-1FD	19 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA4-CW18-1	0.47 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA4-CW7-2	1.3 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA4-CW8-2	3.2 ng/Kg	U	PCDE interference. Flag as ND	Interference
	AOC10TAA4-CW9-1	2 ng/Kg	U	PCDE interference. Flag as ND	Interference	
	AOC11TAA1-CF-1-7.5	0.48 ng/Kg	U	PCDE interference. Flag as ND	Interference	
	AOC11TAA1-CF-2-7.5	0.36 ng/Kg	U	PCDE interference. Flag as ND	Interference	

TABLE F4. Matrix Spike Precision/Accuracy - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	MS/MSD Qualifier*	MS Recovery	Criteria
SW8290 (Soil)						
	1,2,3,7,8-Pentachlorodibenzofuran	AOC11TAA1-CF-2-7.5FD	0.58 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC11TAA1-CF-3-10	1.3 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC14TAA1-CF1-6	21 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC14TAA1-CF1a-10	0.2 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC14TAA1-CF4-6	0.33 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC14TAA1-CW1-2	5.3 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC14TAA1-CW2-4	0.53 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC14TAA1-CW3-4	7 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC14TAA1-CW4-4	3.9 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC14TAA1-CW8-4	0.14 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC16TAA1-CF1-1	0.31 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC16TAA1-CW3-0.5	0.4 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC1TAA1-CF1-5R	28 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC1TAA1-CF1a-7	0.41 ng/Kg	U	Ion ratio criteria not met. Flag as ND	EMPC
		AOC1TAA1-CW1b-5	28 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC1TAA1-CW1c-5	8.1 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC1TAA1-CW1d-5	4.8 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC1TAA1-CW2b-5	11 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC1TAA1-CW2d-5	1.9 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC1TAA1-CW3b-5	6 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC1TAA2-CF1-10	0.63 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC1TAA2-CF2-10	7.2 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC1TAA2-CW1-5.5	5.8 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC1TAA2-CW2-5	0.34 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC1TAA2-CW3-5	11 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC1TAA2-CW6b-6	0.52 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC1TAA2-CW6c-7	0.71 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC27TAA1-CF1-5	0.41 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC27TAA1-CW1-3FD	0.23 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC27TAA1-CW2-3	0.43 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC27TAA1-CW3-4	0.4 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC27TAA1-CW5-3	0.21 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC9TAA1-CF1-3	9.1 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC9TAA1-CW1-2	2.3 ng/Kg	U	PCDE interference. Flag as ND	Interference
	AOC9TAA1-CW2-2	35 ng/Kg	U	PCDE interference. Flag as ND	Interference	

TABLE F4. Matrix Spike Precision/Accuracy - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	MS/MSD Qualifier*	MS Recovery	Criteria
SW8290 (Soil)						
	1,2,3,7,8-Pentachlorodibenzofuran	AOC9TAA1-CW2a-1	2.3 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC9TAA1-CW3-2	58 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC9TAA1-CW4a-1	1.1 ng/Kg	U	PCDE interference. Flag as ND	Interference
		LowerSpy-PS16a-2024	1.7 ng/Kg	U	PCDE interference. Flag as ND	Interference
		LowerSpy-PS16b-2024	0.18 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		LowerSpy-PS17-2024	0.15 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		LowerSpy-PS3-2024	0.48 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		LowerSpy-PS6Na-2024	3.2 ng/Kg	U	PCDE interference. Flag as ND	Interference
		LowerSpy-PS6Sa-2024	15 ng/Kg	U	PCDE interference. Flag as ND	Interference
		LowerSpy-PS9a-2024	0.044 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CF10a-7	0.42 ng/Kg	U	PCDE interference. Flag as ND	Interference
		SWMU1TAA1-CF14-10	1100 ng/Kg	U	PCDE interference. Flag as ND	Interference
		SWMU1TAA1-CF16-10	4.7 ng/Kg	U	PCDE interference. Flag as ND	Interference
		SWMU1TAA1-CF17-10	0.3 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CF19-10	0.26 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CF3-10	8.2 ng/Kg	U	PCDE interference. Flag as ND	Interference
		SWMU1TAA1-CF4-10	31 ng/Kg	U	PCDE interference. Flag as ND	Interference
		SWMU1TAA1-CF6-4	2 ng/Kg	U	PCDE interference. Flag as ND	Interference
		SWMU1TAA1-CF7-6	16 ng/Kg	U	PCDE interference. Flag as ND	Interference
		SWMU1TAA1-CF8-3	4.8 ng/Kg	U	PCDE interference. Flag as ND	Interference
		SWMU1TAA1-CF9a-7	14 ng/Kg	U	PCDE interference. Flag as ND	Interference
		SWMU1TAA1-CW10a-2	0.6 ng/Kg	U	PCDE interference. Flag as ND	Interference
		SWMU1TAA1-CW11-1	2.4 ng/Kg	U	PCDE interference. Flag as ND	Interference
		SWMU1TAA1-CW13-4	0.32 ng/Kg	U	PCDE interference. Flag as ND	Interference
		SWMU1TAA1-CW14-5	0.63 ng/Kg	U	PCDE interference. Flag as ND	Interference
		SWMU1TAA1-CW15-2	0.15 ng/Kg	U	PCDE interference. Flag as ND	Interference
		SWMU1TAA1-CW19-5	0.24 ng/Kg	U	Ion ratio criteria not met. Flag as ND	EMPC
		SWMU1TAA1-CW21-6	0.54 ng/Kg	U	PCDE interference. Flag as ND	Interference
		SWMU1TAA1-CW22-6	0.55 ng/Kg	U	PCDE interference. Flag as ND	Interference
		SWMU1TAA1-CW28-5	0.085 ng/Kg	U	PCDE interference. Flag as ND	Interference
		SWMU1TAA1-CW29a-4	0.78 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CW34-4	0.12 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	SWMU1TAA1-CW38-4	0.048 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	SWMU1TAA1-CW3a-5	0.15 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	SWMU1TAA1-CW5-5	0.062 ng/Kg	U	Ion ratio criteria not met. Flag as ND	EMPC	

TABLE F4. Matrix Spike Precision/Accuracy - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	MS/MSD Qualifier*	MS Recovery	Criteria	
SW8290 (Soil)							
1,2,3,7,8-Pentachlorodibenzofuran		SWMU1TAA1-CW6-6	1.6 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		SWMU1TAA1-CW7a-5	0.58 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		SWMU1TAA1-CW8-2	5.9 ng/Kg	U	PCDE interference. Flag as ND	Interference	
		SWMU1TAA1-CW8-2FD	7 ng/Kg	U	PCDE interference. Flag as ND	Interference	
		SWMU1TAA1-CW9-2	4.5 ng/Kg	U	PCDE interference. Flag as ND	Interference	
		SWMU1TAA2-CF3-4	0.36 ng/Kg	U	PCDE interference. Flag as ND	Interference	
		SWMU1TAA2-CW1-3	1 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		SWMU1TAA2-CW2-3	4.8 ng/Kg	U	PCDE interference. Flag as ND	Interference	
		SWMU1TAA2-CW3-3	4.7 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		SWMU1TAA2-CW4-1.5	0.28 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		SWMU1TAA2-CW4-1.5FD	0.43 ng/Kg	U	PCDE interference. Flag as ND	Interference	
		SWMU1TAA2-CW5-3	0.23 ng/Kg	U	PCDE interference. Flag as ND	Interference	
		SWMU1TAA2-CW6-1.5	0.57 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		SWMU1TAA2-CW6-FD-1.5	0.34 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		SWMU1TAA2-CW7-3	0.25 ng/Kg	U	PCDE interference. Flag as ND	Interference	
		SWMU1TAA3-CF1a-3	30 ng/Kg	U	PCDE interference. Flag as ND	Interference	
		SWMU1TAA3-CW3-2	4.8 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		SWMU1TAA3-CW4a-1.5	0.31 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	1,2,3,7,8-Pentachlorodibenzo-p-dioxin		SWMU1TAA3-CW5-2	0.28 ng/Kg	U	PCDE interference. Flag as ND	Interference
			UpperSpy-PS3-2024	1.2 ng/Kg	U	PCDE interference. Flag as ND	Interference
		UpperSpy-PS3-2024FD	0.6 ng/Kg	U	PCDE interference. Flag as ND	Interference	
		UpperSpy-PS4-2024	4.8 ng/Kg	U	PCDE interference. Flag as ND	Interference	
		AOC10TAA1-CF6-3FD	0.54 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		AOC10TAA2-CF18-7	0.3 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		AOC10TAA2-CW21a-3	0.18 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		AOC10TAA2-CW24-2	1.8 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		AOC10TAA2-CW35-3	0.32 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		AOC10TAA2-CW36-2	0.28 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		AOC10TAA2-CW9-5	0.15 ng/Kg	U	Ion ratio criteria not met. Flag as ND	EMPC	
		AOC10TAA4-CF5-0	0.36 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		AOC11TAA1-CF5-7	0.17 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		AOC11TAA1-CW11a-4	0.95 ng/Kg	U	Incorrect isotope ratios. Flag as ND	EMPC	
		AOC11TAA1-CW5a-4	3.1 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		AOC11TAA1-CW7a-4	1.1 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		AOC14TAA1-CF1-6	0.27 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	

TABLE F4. Matrix Spike Precision/Accuracy - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	MS/MSD Qualifier*	MS Recovery	Criteria
SW8290 (Soil)						
	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	AOC14TAA1-CF1a-10	0.2 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC1TAA2-CF2-10	0.48 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC1TAA2-CW7-8	1.4 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC27TAA1-CF2-7	0.41 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC27TAA1-CW3-4	0.28 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC27TAA1-CW4-1.5	0.46 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC9TAA1-CW1-2	0.4 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		LowerSpy-PS16a-2024	0.91 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		LowerSpy-PS16c-2024	0.23 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		LowerSpy-PS19-2024FD	0.04 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		LowerSpy-PS20-2024	0.019 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		LowerSpy-PS3a-2024	0.13 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		LowerSpy-PS6Na-2024	0.67 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CF1-10	0.072 ng/Kg	U	Ion ratio criteria not met. Flag as ND	EMPC
		SWMU1TAA1-CF15-10	1.9 ng/Kg	U	PCDE interference. Flag as ND	Interference
		SWMU1TAA1-CF19-10	0.58 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CF20-10	0.16 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CF2-10	0.16 ng/Kg	U	Ion ratio criteria not met. Flag as ND	EMPC
		SWMU1TAA1-CF3-10	2.4 ng/Kg	U	Ion ratio criteria not met. Flag as ND	EMPC
		SWMU1TAA1-CF6-4	0.62 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CF8-3	1 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CW11-1	0.29 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CW16-5	0.069 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CW17-5	0.14 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CW21-6	0.083 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CW5-5	0.14 ng/Kg	U	Ion ratio criteria not met. Flag as ND	EMPC
		SWMU1TAA1-CW6-6	3.9 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CW7a-5	1.8 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CW8-2FD	2.1 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CW9-2	0.18 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA2-CW4-1.5	0.088 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		UpperSpy-PS4-2024	0.36 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		UpperSpy-PS5-2024	0.039 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		UpperSpy-PS6-2024	0.38 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	UpperSpy-PS7-2024	0.31 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	

TABLE F4. Matrix Spike Precision/Accuracy - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	MS/MSD Qualifier*	MS Recovery	Criteria
SW8290 (Soil)						
	2,3,4,6,7,8-Hexachlorodibenzofuran	AOC10TAA1-CF11-4	1.5 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA1-CF12-5	4.9 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA1-CF4-3	0.25 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA1-CW13-1.5	70 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA2-CF19-5	0.27 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CF20-5	0.45 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CF3-5	16 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA2-CF4-5	7.6 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA2-CF5-5	0.36 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA2-CF7-5	11 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA2-CW16a-4	1 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW20-1FD	310 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA2-CW21a-3	0.16 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW24-2	8.7 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA2-CW26-2	12 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA2-CW28a-3	3.3 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA2-CW34-3	9.3 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA2-CW37-3	0.32 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW9-5	0.83 ng/Kg	U	Ion ratio criteria not met. Flag as ND	EMPC
		AOC10TAA3-CF1-2	0.21 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA3-CW2-2	0.12 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA4-CF5-0	0.68 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA4-CW12a-1	99 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA4-CW12b-1FD	0.16 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA4-CW13-2	99 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA4-CW14-1	17 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA4-CW15-1	15 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA4-CW16-1	35 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA4-CW17-1	69 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA4-CW17-1FD	140 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC11TAA1-CW5a-4	14 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC14TAA1-CW1-2	0.39 ng/Kg	U	PCDE interference. Flag as ND	Interference
	AOC14TAA1-CW4-4	1 ng/Kg	U	PCDE interference. Flag as ND	Interference	
	AOC16TAA1-CF1-1	0.7 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	AOC16TAA1-CW2-0.5	0.46 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	

TABLE F4. Matrix Spike Precision/Accuracy - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	MS/MSD Qualifier*	MS Recovery	Criteria
SW8290 (Soil)						
	2,3,4,6,7,8-Hexachlorodibenzofuran	AOC1TAA1-CW1d-5	4.5 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC1TAA1-CW2-5	0.2 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC27TAA1-CW1-3FD	0.89 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC27TAA1-CW5-3	0.48 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC9TAA1-CF1-3	4.6 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC9TAA1-CW1-2	0.96 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC9TAA1-CW2-2	23 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC9TAA1-CW2a-1	14 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC9TAA1-CW3-2	9.3 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC9TAA1-CW4a-1	5.9 ng/Kg	U	PCDE interference. Flag as ND	Interference
		LowerSpy-PS1-2024	0.65 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		LowerSpy-PS16a-2024	2.1 ng/Kg	U	PCDE interference. Flag as ND	Interference
		LowerSpy-PS18-2024	0.67 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		LowerSpy-PS20-2024	0.052 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		LowerSpy-PS6Na-2024	5.5 ng/Kg	U	PCDE interference. Flag as ND	Interference
		LowerSpy-PS6Sa-2024	21 ng/Kg	U	PCDE interference. Flag as ND	Interference
		LowerSpy-PS6Sa-2024FD	2 ng/Kg	U	PCDE interference. Flag as ND	Interference
		SWMU1TAA1-CF12-10FD	0.25 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CF18-10	2.3 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CF3-10	14 ng/Kg	U	PCDE interference. Flag as ND	Interference
		SWMU1TAA1-CF4-10	50 ng/Kg	U	PCDE interference. Flag as ND	Interference
		SWMU1TAA1-CF6-4	1.2 ng/Kg	U	PCDE interference. Flag as ND	Interference
		SWMU1TAA1-CF7-6	15 ng/Kg	U	PCDE interference. Flag as ND	Interference
		SWMU1TAA1-CF8-3	2.2 ng/Kg	U	PCDE interference. Flag as ND	Interference
		SWMU1TAA1-CF9a-7	7.7 ng/Kg	U	PCDE interference. Flag as ND	Interference
		SWMU1TAA1-CW10a-2	0.1 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CW11-1	0.73 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CW14-5	0.4 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CW17-5	0.39 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CW24a-5	1.6 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CW26a-5	0.64 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CW5-5	0.16 ng/Kg	U	Ion ratio criteria not met. Flag as ND	EMPC
		SWMU1TAA1-CW6-6	36 ng/Kg	U	PCDE interference. Flag as ND	Interference
	SWMU1TAA1-CW8-2	5 ng/Kg	U	PCDE interference. Flag as ND	Interference	
	SWMU1TAA1-CW8-2FD	5.3 ng/Kg	U	PCDE interference. Flag as ND	Interference	

TABLE F4. Matrix Spike Precision/Accuracy - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	MS/MSD Qualifier*	MS Recovery	Criteria
SW8290 (Soil)						
	2,3,4,6,7,8-Hexachlorodibenzofuran	SWMU1TAA2-CW2-3	0.33 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA2-CW6-FD-1.5	0.11 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	2,3,4,7,8-Pentachlorodibenzofuran	AOC10TAA1-CF12-5	0.82 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA1-CW11-2.5	0.061 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA1-CW13-1.5	8.4 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA1-CW18-3	0.97 ng/Kg	U	Ion ratio criteria not met. Flag as ND	EMPC
		AOC10TAA1-CW19-3	0.16 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA1-CW5-2FD	0.14 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA1-CW7-2	0.17 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CF14a-6	1.8 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CF15-6	2.5 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA2-CF16-5	2.1 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA2-CF18-7	0.2 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CF19-5	0.16 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CF22a-3	0.31 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CF23-0	0.17 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CF8a-5	0.51 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW10-5	0.27 ng/Kg	U	Ion ratio criteria not met. Flag as ND	EMPC
		AOC10TAA2-CW11-4	0.09 ng/Kg	U	Ion ratio criteria not met. Flag as ND	EMPC
		AOC10TAA2-CW28a-3	0.87 ng/Kg	U	IonRatio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW28a-3	0.87 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA2-CW30a-5	1.3 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW30a-5FD	1.3 ng/Kg	U	IonRatio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW31-4	0.35 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW32-2	1.1 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA2-CW34-3	3.5 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA3-CF1-2	0.1 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA4-CF2-5	40 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA4-CF6-2	0.44 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA4-CW10-3	1.7 ng/Kg	U	PCDE interference. Flag as ND	Interference
	AOC10TAA4-CW11-3	10 ng/Kg	U	PCDE interference. Flag as ND	Interference	
	AOC10TAA4-CW13-2	9.1 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	AOC10TAA4-CW15-1	1.3 ng/Kg	U	PCDE interference. Flag as ND	Interference	
	AOC10TAA4-CW16-1	5 ng/Kg	U	PCDE interference. Flag as ND	Interference	
	AOC10TAA4-CW18-1	0.82 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	

TABLE F4. Matrix Spike Precision/Accuracy - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	MS/MSD Qualifier*	MS Recovery	Criteria
SW8290 (Soil)						
	2,3,4,7,8-Pentachlorodibenzofuran	AOC10TAA4-CW7-2	1.6 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA4-CW8-2	2.4 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA4-CW9-1	2.1 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC11TAA1-CW5a-4	2 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC11TAA1-CW6a-4FD	4.6 ng/Kg	U	Incorrect isotope ratios. Flag as ND	EMPC
		AOC16TAA1-CW2-0.5	0.34 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC16TAA1-CW4-0.5	0.5 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC1TAA1-CW1-3	0.75 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC1TAA1-CW1c-5	2.2 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC1TAA2-CW2-5	0.14 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC1TAA2-CW6c-7	2.9 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC1TAA2-CW8-7	0.38 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC27TAA1-CF2-7	0.54 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC27TAA1-CW1-3	0.63 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC27TAA1-CW1-3FD	0.42 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC27TAA1-CW3-4	0.6 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC27TAA1-CW4-1.5	0.49 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC27TAA1-CW5-3	0.33 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC9TAA1-CW2-2	8.3 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC9TAA1-CW2a-1	4.6 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC9TAA1-CW4a-1	2.2 ng/Kg	U	PCDE interference. Flag as ND	Interference
		LowerSpy-PS16a-2024	0.29 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		LowerSpy-PS17-2024	0.3 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		LowerSpy-PS19-2024	0.076 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		LowerSpy-PS3a-2024	0.09 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		LowerSpy-PS6Na-2024	0.7 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		LowerSpy-PS6Sa-2024FD	0.65 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CF14-10	58 ng/Kg	U	PCDE interference. Flag as ND	Interference
		SWMU1TAA1-CF15-10	6.9 ng/Kg	U	PCDE interference. Flag as ND	Interference
		SWMU1TAA1-CF17-10	0.76 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CF18-10	1.1 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CF19-10	0.57 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CF20-10	0.14 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
	SWMU1TAA1-CF22-10	0.2 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	SWMU1TAA1-CF6-4	0.34 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	

TABLE F4. Matrix Spike Precision/Accuracy - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	MS/MSD Qualifier*	MS Recovery	Criteria	
SW8290 (Soil)							
2,3,4,7,8-Pentachlorodibenzofuran		SWMU1TAA1-CF9a-7	1.4 ng/Kg	U	PCDE interference. Flag as ND	Interference	
		SWMU1TAA1-CW11-1	0.21 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		SWMU1TAA1-CW14-5	0.19 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		SWMU1TAA1-CW1-5	0.089 ng/Kg	U	Ion ratio criteria not met. Flag as ND	EMPC	
		SWMU1TAA1-CW17-5	0.37 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		SWMU1TAA1-CW19-5	0.67 ng/Kg	U	Ion ratio criteria not met. Flag as ND	EMPC	
		SWMU1TAA1-CW30-5	0.69 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		SWMU1TAA1-CW37-3	0.094 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		SWMU1TAA1-CW38-4	0.044 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		SWMU1TAA1-CW39-4	0.13 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		SWMU1TAA1-CW4-5	0.045 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		SWMU1TAA1-CW5-5	0.087 ng/Kg	U	Ion ratio criteria not met. Flag as ND	EMPC	
		SWMU1TAA1-CW9-2	0.42 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		SWMU1TAA2-CW1-3	0.53 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		SWMU1TAA2-CW4-1.5FD	0.047 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		SWMU1TAA2-CW6-1.5	0.072 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		SWMU1TAA3-CF1a-3	2.8 ng/Kg	U	PCDE interference. Flag as ND	Interference	
		UpperSpy-PS4-2024	0.7 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		UpperSpy-PS5-2024	0.048 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	2,3,7,8-Tetrachlorodibenzofuran		AOC10TAA1-CF6-3FD	1 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
			AOC10TAA1-CW10-1	1.1 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
			AOC10TAA1-CW1-2	0.39 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
			AOC10TAA1-CW12-3FD	0.95 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
			AOC10TAA1-CW13-1.5	0.54 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
			AOC10TAA1-CW15-3	1 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA1-CW5-2FD	0.15 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		AOC10TAA1-CW6-2	5.3 ng/Kg	U	PCDE interference. Flag as ND	Interference	
		AOC10TAA2-CF10-2	0.25 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		AOC10TAA2-CF14a-6	0.27 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		AOC10TAA2-CF20-5	0.11 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		AOC10TAA2-CW30a-5	0.27 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		AOC10TAA2-CW34-3	0.3 ng/Kg	U	IonRatio criteria not met; flag as ND	EMPC	
		AOC10TAA2-CW35-3	0.19 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		AOC10TAA2-CW35-3FD	0.15 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
		AOC10TAA3-CW2-2	0.86 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	

TABLE F4. Matrix Spike Precision/Accuracy - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	MS/MSD Qualifier*	MS Recovery	Criteria	
SW8290 (Soil)							
2,3,7,8-Tetrachlorodibenzofuran	AOC10TAA3-CW3-2		0.92 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	AOC10TAA4-CW17-1FD		1.2 ng/Kg	U	PCDE interference. Flag as ND	Interference	
	AOC14TAA1-CF1a-10		0.69 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	AOC14TAA1-CF4-6		0.36 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	AOC14TAA1-CW6-5		0.5 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	AOC16TAA1-CF1-1		0.41 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	AOC16TAA1-CW4-0.5		0.44 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	AOC1TAA1-CF1a-7		0.21 ng/Kg	U	Ion ratio criteria not met. Flag as ND	EMPC	
	AOC1TAA1-CW2c-5		1.3 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	AOC1TAA1-CW2d-5		0.44 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	AOC1TAA1-CW3a-5		1.6 ng/Kg	U	Ion ratio criteria not met. Flag as ND	EMPC	
	AOC1TAA2-CF4-10		0.38 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	AOC1TAA2-CW1-5.5		0.12 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	AOC1TAA2-CW2-5		0.098 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	AOC1TAA2-CW6c-7		0.42 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	AOC27TAA1-CW3-4		0.99 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	LowerSpy-PS16b-2024		0.1 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	LowerSpy-PS3a-2024FD		0.049 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	LowerSpy-PS6Nb-2024		0.074 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	LowerSpy-PS6Sa-2024FD		0.31 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	LowerSpy-PS8a-2024FD		0.052 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	SWMU1TAA1-CF11-10		0.11 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	SWMU1TAA1-CF12-10FD		0.17 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	SWMU1TAA1-CF22-10		1 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	SWMU1TAA1-CW18-6		1 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	SWMU1TAA1-CW26a-5		1 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	SWMU1TAA1-CW37-3		0.93 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	SWMU1TAA1-CW39-4		0.95 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	SWMU1TAA1-CW8-2		0.23 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
	2,3,7,8-Tetrachlorodibenzo-p-dioxin	AOC10TAA1-CF13-5		0.22 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CF10-2		0.14 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW26-2		0.75 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW34-3		0.24 ng/Kg	U	IonRatio criteria not met; flag as ND	EMPC
AOC10TAA4-CW10-3			0.13 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	
AOC10TAA4-CW12a-1			0.56 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC	

TABLE F4. Matrix Spike Precision/Accuracy - Qualified Data

Method (Matrix)	Analyte	Sample Identification	Result	MS/MSD Qualifier*	MS Recovery	Criteria
SW8290 (Soil)						
	2,3,7,8-Tetrachlorodibenzo-p-dioxin	AOC10TAA4-CW1-3	0.39 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA4-CW13-2	0.87 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA4-CW17-1FD	0.97 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC10TAA4-CW5-3	2.6 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC11TAA1-CF-2-7.5FD	0.12 ng/Kg	U	PCDE interference. Flag as ND	Interference
		AOC14TAA1-CW11-FD3	0.22 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC16TAA1-CW4-0.5	0.091 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC1TAA1-CF1a-7	0.2 ng/Kg	U	Ion ratio criteria not met. Flag as ND	EMPC
		AOC1TAA2-CF4-10	0.62 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC1TAA2-CW12-3	0.19 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		LowerSpy-PS22-2024	0.14 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CW28-5	0.077 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA1-CW32a-4FD	0.19 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA2-CF2-4	0.61 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA3-CF1a-3	0.33 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		OCDD	AOC10TAA1-CW9-1.5	1.9 ng/Kg	U	Ion ratio criteria not met; flag as ND
	OCDF	AOC10TAA1-CF7-3	0.31 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC10TAA2-CW41-2	9.5 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		AOC27TAA1-CW2-3	9.8 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		LowerSpy-PS20-2024	0.64 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		LowerSpy-PS4-2024	19 ng/Kg	J	%R = 146 LCL = 70 UCL = 130	MS>UCL
		LowerSpy-PS4-2024	19 ng/Kg	J	%R = 140 LCL = 70 UCL = 130	SD>UCL
		SWMU1TAA1-CW15-2	1.1 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC
		SWMU1TAA2-CW3-3	9.4 ng/Kg	U	Ion ratio criteria not met; flag as ND	EMPC

TABLE F4. Matrix Spike Precision/Accuracy - Qualified Data

%D = percent difference

%R = percent recovery

LCL = lower control limit

UCL = upper control limit

mg/Kg = milligrams per kilogram

ng/Kg = Undefined Unit in tkpUnits

* The most severe flag for each analyte becomes the final validation flag.

Qualifier Description:

J = The analyte was positively identified, the quantitation is an estimate.

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the reporting limit (RL).

UJ = The analyte was analyzed for, but not detected. The associated numerical value is at or below the reporting limit (RL). The quantitation is an estimate.

Criteria:

- EMPC = Estimated Maximum Possible Concentration
- Interference = Indicates the presence of quantitative interference
- MS<LCL = Matrix spike recovery less than lower limit
- MS>UCL = Matrix spike recovery greater than upper limit
- MSRPD = Matrix spike RPD criteria exceedance
- PDS<LCL = Post-digestion spike recovery < lower acceptance limit
- PDS>UCL = Post-digestion spike recovery > upper acceptance limit
- SD<LCL = Matrix spike duplicate recovery criteria less than lower limit
- SD>UCL = Matrix spike duplicate recovery criteria greater than upper limit
- SerDil = Serial dilution %D>UCL

TABLE F5. Surrogate Recovery - Qualified Data

Method(Matrix)	Analyte	Sample Identification	Result	Surrogate Qualifier*	Surrogate Recovery	Criteria		
SW8290 (Soil)								
1,2,3,4,7,8,9-Heptachlorodibenzofuran		AOC1TAA2-CW5a-5	9.3 ng/Kg	J	%R=35 LCL=40 UCL=135	Sur<LCL		
		SWMU1TAA1-CW37-3	0.51 ng/Kg	UJ	%R=37 LCL=40 UCL=135	Sur<LCL		
1,2,3,7,8-Pentachlorodibenzofuran		AOC1TAA2-CW5a-5	0.66 ng/Kg	UJ	%R=38 LCL=40 UCL=135	Sur<LCL		
2,3,4,7,8-Pentachlorodibenzofuran		AOC1TAA2-CW5a-5	1.6 ng/Kg	J	%R=38 LCL=40 UCL=135	Sur<LCL		
2,3,7,8-Tetrachlorodibenzofuran		AOC1TAA2-CW5a-5	0.35 ng/Kg	J	%R=38 LCL=40 UCL=135	Sur<LCL		
2,3,7,8-Tetrachlorodibenzo-p-dioxin		AOC10TAA2-CW26a-2	0.34 ng/Kg	UJ	%R=26 LCL=40 UCL=135	Sur<LCL		
		AOC10TAA4-CF6-2	0.2 ng/Kg	UJ	%R=39 LCL=40 UCL=135	Sur<LCL		
		AOC10TAA4-CF7-2	0.13 ng/Kg	UJ	%R=37 LCL=40 UCL=135	Sur<LCL		
		AOC10TAA4-CW16b-2.5	2.9 ng/Kg	J	%R=24 LCL=40 UCL=135	Sur<LCL		
		AOC10TAA4-CW16b-2.5FD	2.6 ng/Kg	J	%R=26 LCL=40 UCL=135	Sur<LCL		
		AOC10TAA4-CW18-1	0.52 ng/Kg	UJ	%R=38 LCL=40 UCL=135	Sur<LCL		
		AOC10TAA4-CW19-4	0.66 ng/Kg	UJ	%R=27 LCL=40 UCL=135	Sur<LCL		
		AOC10TAA4-CW21-1	0.69 ng/Kg	UJ	%R=22 LCL=40 UCL=135	Sur<LCL		
		AOC14TAA1-CW3-4	0.26 ng/Kg	UJ	%R=32 LCL=40 UCL=135	Sur<LCL		
		AOC1TAA2-CW5a-5	0.17 ng/Kg	UJ	%R=36 LCL=40 UCL=135	Sur<LCL		
		SWMU1TAA2-CW5-3	0.18 ng/Kg	UJ	%R=32 LCL=40 UCL=135	Sur<LCL		
		SWMU1TAA2-CW8-3	0.23 ng/Kg	UJ	%R=39 LCL=40 UCL=135	Sur<LCL		
		OCDD		AOC10TAA1-CF8-3FD	5.3 ng/Kg	J	%R=35 LCL=40 UCL=135	Sur<LCL
				AOC10TAA2-CF8a-5	1000 ng/Kg	J	%R=39 LCL=40 UCL=135	Sur<LCL
AOC1TAA1-CW2a-5	100000 ng/Kg			J	%R=26 LCL=40 UCL=150	Sur<LCL		
LowerSpy-PS10b-2024	5.8 ng/Kg			J	%R=38 LCL=40 UCL=135	Sur<LCL		
LowerSpy-PS11a-2024	250 ng/Kg			J	%R=38 LCL=40 UCL=135	Sur<LCL		
SWMU1TAA1-CW39-4	76 ng/Kg			J	%R=38 LCL=40 UCL=135	Sur<LCL		
SWMU1TAA1-CW40-4	63 ng/Kg			J	%R=39 LCL=40 UCL=135	Sur<LCL		
SWMU1TAA1-CW4-5	85 ng/Kg			J	%R=38 LCL=40 UCL=135	Sur<LCL		
SWMU1TAA1-CW5-5	180 ng/Kg			J	%R=37 LCL=40 UCL=135	Sur<LCL		

TABLE F5. Surrogate Recovery - Qualified Data

%R = percent recovery

LCL = lower control limit

UCL = upper control limit

ng/Kg = Undefined Unit in tlkpUnits

* The most severe flag for each analyte becomes the final validation flag.

Qualifier Description:

J = The analyte was positively identified, the quantitation is an estimate.

UJ = The analyte was analyzed for, but not detected. The associated numerical value is at or below the reporting limit (RL). The quantitation is an estimate.

Criteria:

Sur<LCL = Surrogate recovery less than lower limit

TABLE F6. Internal Standards - Qualified Data

Method (Matrix)				
Sample Identification	Analyte	Result	Internal Standard Qualifier*	Criteria
SW8290 (Soil)				
SWMU1TAA1-CF11-10	1,2,3,7,8-Pentachlorodibenzofuran	0.024 ng/Kg	UJ	IS>UCL
	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	0.07 ng/Kg	UJ	IS>UCL
SWMU1TAA1-CF12-10	1,2,3,7,8-Pentachlorodibenzofuran	0.07 ng/Kg	J	IS>UCL
	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	0.11 ng/Kg	J	IS>UCL
SWMU1TAA1-CW16-5	1,2,3,7,8-Pentachlorodibenzofuran	0.04 ng/Kg	UJ	IS>UCL

ng/Kg = Undefined Unit in tlkpUnits

* The most severe flag for each analyte becomes the final validation flag.

Qualifier Description:

J = The analyte was positively identified, the quantitation is an estimate.

UJ = The analyte was analyzed for, but not detected. The associated numerical value is at or below the reporting limit (RL). The quantitation is an estimate.

Criteria:

IS>UCL = Internal standard response greater than upper control limit

TABLE F7. Site Completeness by Analyte - Qualified Data

Method	Matrix	Analyte	Units	Number of Occurrences					Contractor R-Flags	Total	Contractor Completeness (%)	Overall
				Analyses	Detects	Non-detects	Blank Flags	J-Flags				
SW6010B	Soil	Chromium	MG/KG	449	449			60		100	100	
		Chromium, STLC	MG/L	5	5					100	100	
		Chromium, TCLP	MG/L	8	5	3				100	100	
		Copper	MG/KG	449	447	2		26		100	100	
		Copper, STLC	MG/L	4	4					100	100	
		Lead	MG/KG	449	444	5		41		100	100	
		Lead, STLC	MG/L	5	4	1				100	100	
		Lead, TCLP	MG/L	1		1				100	100	
		Molybdenum	MG/KG	449	38	411		19		100	100	
		Zinc	MG/KG	449	448	1		87		100	100	
Zinc, STLC	MG/L	2	2					100	100			
SW6020A	Soil	Chromium	MG/KG	2	2					100	100	
		Copper	MG/KG	2	2					100	100	
		Lead	MG/KG	2	2					100	100	
		Molybdenum	MG/KG	2	2					100	100	
		Zinc	MG/KG	2	2					100	100	
SW7199	Soil	Chromium, hexavalent	MG/KG	451	304	147		16		100	100	
SW7471A	Soil	Mercury	MG/KG	451	24	427		5		100	100	
		Mercury, STLC	UG/L	2	2					100	100	
SW8290	Soil	1,2,3,4,6,7,8-Heptachlorodibenzofuran	NG/KG	383	332	51		90		100	100	
		1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	NG/KG	383	376	7		84		100	100	
		1,2,3,4,7,8,9-Heptachlorodibenzofuran	NG/KG	383	250	133		112		100	100	
		1,2,3,4,7,8-Hexachlorodibenzofuran	NG/KG	383	234	149		147		100	100	
		1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	NG/KG	383	228	155		123		100	100	
		1,2,3,6,7,8-Hexachlorodibenzofuran	NG/KG	383	235	148		156		100	100	
		1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	NG/KG	383	333	50		147		100	100	
		1,2,3,7,8,9-Hexachlorodibenzofuran	NG/KG	383	145	238		104		100	100	
		1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	NG/KG	383	293	90		147		100	100	
		1,2,3,7,8-Pentachlorodibenzofuran	NG/KG	383	95	288		78		100	100	
		1,2,3,7,8-Pentachlorodibenzo-p-dioxin	NG/KG	383	230	153		179		100	100	
		2,3,4,6,7,8-Hexachlorodibenzofuran	NG/KG	383	237	146		136		100	100	
2,3,4,7,8-Pentachlorodibenzofuran	NG/KG	383	195	188		161		100	100			

TABLE F7. Site Completeness by Analyte - Qualified Data

Method	Matrix	Analyte	Units	Number of Occurrences					Contractor R-Flags	Total Contractor Completeness (%)	Overall Completeness (%)
				Analyses	Detects	Non- detects	Blank Flags	J-Flags			
SW8290	Soil	2,3,7,8-Tetrachlorodibenzofuran	NG/KG	383	121	262		84		100	100
		2,3,7,8-Tetrachlorodibenzo-p-dioxin	NG/KG	383	74	309		65		100	100
		OCDD	NG/KG	383	380	3		168		100	100
		OCDF	NG/KG	383	351	32		103		100	100
		Total HpCDD	NG/KG	383	379	4		68		100	100
		Total HpCDF	NG/KG	383	365	18		76		100	100
		Total HxCDD	NG/KG	383	371	12		78		100	100
		Total HxCDF	NG/KG	383	365	18		96		100	100
		Total PeCDD	NG/KG	383	289	94		127		100	100
		Total PeCDF	NG/KG	383	355	28		144		100	100
		Total TCDD	NG/KG	383	211	172		93		100	100
Total TCDF	NG/KG	383	291	92		104		100	100		

% = Percent

J-Flags = Estimated results

R-Flags = Rejected results

mg/Kg = milligrams per kilogram

mg/L = milligrams per liter

ng/Kg = nanograms per kilogram

ug/L = micrograms per liter

Table F8

Site/Sample Location Summary

Site	Location	Field ID	QAQC Type	Sample Date
AOC1	AOC1TAA1	AOC1TAA1-CF1-5	N	2/2/2023
AOC1	AOC1TAA1	AOC1TAA1-CF1-5R	N	3/2/2023
AOC1	AOC1TAA1	AOC1TAA1-CF1a-7	N	9/20/2023
AOC1	AOC1TAA1	AOC1TAA1-CW1-3	N	2/2/2023
AOC1	AOC1TAA1	AOC1TAA1-CW1a-5	N	9/20/2023
AOC1	AOC1TAA1	AOC1TAA1-CW1b-5	N	10/2/2023
AOC1	AOC1TAA1	AOC1TAA1-CW1c-5	N	10/18/2023
AOC1	AOC1TAA1	AOC1TAA1-CW1d-5	N	10/18/2023
AOC1	AOC1TAA1	AOC1TAA1-CW2-3	N	2/2/2023
AOC1	AOC1TAA1	AOC1TAA1-CW2a-5	N	9/20/2023
AOC1	AOC1TAA1	AOC1TAA1-CW2b-5	N	10/2/2023
AOC1	AOC1TAA1	AOC1TAA1-CW2c-5	N	10/18/2023
AOC1	AOC1TAA1	AOC1TAA1-CW2d-5	N	10/18/2023
AOC1	AOC1TAA1	AOC1TAA1-CW3-2	N	2/2/2023
AOC1	AOC1TAA1	AOC1TAA1-CW3a-5	N	9/20/2023
AOC1	AOC1TAA1	AOC1TAA1-CW3b-5	N	10/18/2023
AOC1	AOC1TAA1	AOC1TAA1-CW4-2	N	2/2/2023
AOC1	AOC1TAA1	AOC1TAA1-CW4a-5	N	9/20/2023
AOC1	AOC1TAA2	AOC1TAA2-CF1-10	N	9/27/2023
AOC1	AOC1TAA2	AOC1TAA2-CF2-10	N	9/29/2023
AOC1	AOC1TAA2	AOC1TAA2-CF3-10	N	10/26/2023
AOC1	AOC1TAA2	AOC1TAA2-CF4-10	N	11/16/2023
AOC1	AOC1TAA2	AOC1TAA2-CW10-4	N	11/28/2023
AOC1	AOC1TAA2	AOC1TAA2-CW11-4	N	11/28/2023
AOC1	AOC1TAA2	AOC1TAA2-CW12-3	N	12/1/2023
AOC1	AOC1TAA2	AOC1TAA2-CW12-3FD	FD	12/1/2023
AOC1	AOC1TAA2	AOC1TAA2-CW1-5.5	N	9/25/2023
AOC1	AOC1TAA2	AOC1TAA2-CW2-5	N	9/27/2023
AOC1	AOC1TAA2	AOC1TAA2-CW3-5	N	9/27/2023
AOC1	AOC1TAA2	AOC1TAA2-CW4-5	N	9/29/2023
AOC1	AOC1TAA2	AOC1TAA2-CW4a-6	N	10/17/2023
AOC1	AOC1TAA2	AOC1TAA2-CW5-7	N	9/29/2023
AOC1	AOC1TAA2	AOC1TAA2-CW5a-5	N	10/6/2023
AOC1	AOC1TAA2	AOC1TAA2-CW5b-7	N	11/16/2023
AOC1	AOC1TAA2	AOC1TAA2-CW5c-7	N	11/29/2023
AOC1	AOC1TAA2	AOC1TAA2-CW6-6	N	10/13/2023
AOC1	AOC1TAA2	AOC1TAA2-CW6-6	N	10/16/2023
AOC1	AOC1TAA2	AOC1TAA2-CW6a-6	N	10/18/2023
AOC1	AOC1TAA2	AOC1TAA2-CW6b-6	N	10/18/2023
AOC1	AOC1TAA2	AOC1TAA2-CW6c-7	N	11/16/2023
AOC1	AOC1TAA2	AOC1TAA2-CW7-8	N	10/17/2023
AOC1	AOC1TAA2	AOC1TAA2-CW8-7	N	10/19/2023
AOC1	AOC1TAA2	AOC1TAA2-CW9-4	N	11/28/2023
AOC1	AOC1TAA3	AOC1TAA3-CF1-4	N	1/12/2023

Table F8

Site/Sample Location Summary

Site	Location	Field ID	QAQC Type	Sample Date
AOC1	AOC1TAA3	AOC1TAA3-CW1-3	N	1/12/2023
AOC1	AOC1TAA3	AOC1TAA3-CW2-3	N	1/12/2023
AOC1	AOC1TAA3	AOC1TAA3-CW3-3	N	1/12/2023
AOC1	AOC1TAA3	AOC1TAA3-CW4-4	N	1/13/2023
AOC1	AOC1TAA3	AOC1TAA3-CW5-1	N	1/19/2023
AOC10	AOC10TA1	AOC10TAA1-CW1-2	N	7/20/2023
AOC10	AOC10TA1	AOC10TAA1-CW2-2	N	7/20/2023
AOC10	AOC10TAA1	AOC10TAA1-CF10-3	N	9/7/2023
AOC10	AOC10TAA1	AOC10TAA1-CF11-4	N	9/8/2023
AOC10	AOC10TAA1	AOC10TAA1-CF12-5	N	9/13/2023
AOC10	AOC10TAA1	AOC10TAA1-CF1-3	N	7/24/2023
AOC10	AOC10TAA1	AOC10TAA1-CF13-5	N	9/15/2023
AOC10	AOC10TAA1	AOC10TAA1-CF14-5	N	9/15/2023
AOC10	AOC10TAA1	AOC10TAA1-CF14-5FD	FD	9/15/2023
AOC10	AOC10TAA1	AOC10TAA1-CF2-0	N	7/28/2023
AOC10	AOC10TAA1	AOC10TAA1-CF2a-3	N	7/24/2023
AOC10	AOC10TAA1	AOC10TAA1-CF3-3	N	8/4/2023
AOC10	AOC10TAA1	AOC10TAA1-CF4-3	N	8/4/2023
AOC10	AOC10TAA1	AOC10TAA1-CF5-3	N	8/4/2023
AOC10	AOC10TAA1	AOC10TAA1-CF6-3	N	8/18/2023
AOC10	AOC10TAA1	AOC10TAA1-CF6-3FD	FD	8/18/2023
AOC10	AOC10TAA1	AOC10TAA1-CF7-3	N	8/18/2023
AOC10	AOC10TAA1	AOC10TAA1-CF8-3	N	8/22/2023
AOC10	AOC10TAA1	AOC10TAA1-CF8-3FD	FD	8/22/2023
AOC10	AOC10TAA1	AOC10TAA1-CF9-3	N	8/30/2023
AOC10	AOC10TAA1	AOC10TAA1-CW10-1	N	8/31/2023
AOC10	AOC10TAA1	AOC10TAA1-CW11-2.5	N	9/7/2023
AOC10	AOC10TAA1	AOC10TAA1-CW12-3	N	9/8/2023
AOC10	AOC10TAA1	AOC10TAA1-CW12-3FD	FD	9/8/2023
AOC10	AOC10TAA1	AOC10TAA1-CW13-1.5	N	9/8/2023
AOC10	AOC10TAA1	AOC10TAA1-CW14-2.5	N	9/11/2023
AOC10	AOC10TAA1	AOC10TAA1-CW15-3	N	9/13/2023
AOC10	AOC10TAA1	AOC10TAA1-CW16-3	N	9/15/2023
AOC10	AOC10TAA1	AOC10TAA1-CW17-3	N	9/15/2023
AOC10	AOC10TAA1	AOC10TAA1-CW18-3	N	9/15/2023
AOC10	AOC10TAA1	AOC10TAA1-CW19-3	N	10/13/2023
AOC10	AOC10TAA1	AOC10TAA1-CW3-0.5	N	7/28/2023
AOC10	AOC10TAA1	AOC10TAA1-CW4-2	N	7/28/2023
AOC10	AOC10TAA1	AOC10TAA1-CW5-2	N	7/28/2023
AOC10	AOC10TAA1	AOC10TAA1-CW5-2FD	FD	7/28/2023
AOC10	AOC10TAA1	AOC10TAA1-CW6-2	N	7/28/2023
AOC10	AOC10TAA1	AOC10TAA1-CW6a-1	N	10/12/2023
AOC10	AOC10TAA1	AOC10TAA1-CW7-2	N	8/4/2023
AOC10	AOC10TAA1	AOC10TAA1-CW8-2	N	8/4/2023

Table F8

Site/Sample Location Summary

Site	Location	Field ID	QAQC Type	Sample Date
AOC10	AOC10TAA1	AOC10TAA1-CW9-1.5	N	8/22/2023
AOC10	AOC10TAA2	AOC10TAA2-CF10-2	N	12/2/2022
AOC10	AOC10TAA2	AOC10TAA2-CF11-3.5	N	12/5/2022
AOC10	AOC10TAA2	AOC10TAA2-CF12-4	N	12/21/2022
AOC10	AOC10TAA2	AOC10TAA2-CF13-4	N	12/21/2022
AOC10	AOC10TAA2	AOC10TAA2-CF14-6	N	1/10/2023
AOC10	AOC10TAA2	AOC10TAA2-CF14a-6	N	3/8/2023
AOC10	AOC10TAA2	AOC10TAA2-CF15-6	N	1/10/2023
AOC10	AOC10TAA2	AOC10TAA2-CF15a-1	N	4/19/2023
AOC10	AOC10TAA2	AOC10TAA2-CF16-5	N	1/10/2023
AOC10	AOC10TAA2	AOC10TAA2-CF17-6	N	2/24/2023
AOC10	AOC10TAA2	AOC10TAA2-CF18-7	N	3/6/2023
AOC10	AOC10TAA2	AOC10TAA2-CF19-5	N	3/7/2023
AOC10	AOC10TAA2	AOC10TAA2-CF20-5	N	3/8/2023
AOC10	AOC10TAA2	AOC10TAA2-CF21-5	N	3/9/2023
AOC10	AOC10TAA2	AOC10TAA2-CF22-7	N	3/15/2023
AOC10	AOC10TAA2	AOC10TAA2-CF22a-3	N	5/1/2023
AOC10	AOC10TAA2	AOC10TAA2-CF22a-3FD	FD	5/1/2023
AOC10	AOC10TAA2	AOC10TAA2-CF23-0	N	4/14/2023
AOC10	AOC10TAA2	AOC10TAA2-CF24-0	N	4/14/2023
AOC10	AOC10TAA2	AOC10TAA2-CF3-5	N	11/9/2022
AOC10	AOC10TAA2	AOC10TAA2-CF4-5	N	11/9/2022
AOC10	AOC10TAA2	AOC10TAA2-CF4a-1	N	4/19/2023
AOC10	AOC10TAA2	AOC10TAA2-CF5-5	N	11/9/2022
AOC10	AOC10TAA2	AOC10TAA2-CF6-5	N	11/9/2022
AOC10	AOC10TAA2	AOC10TAA2-CF7-5	N	11/9/2022
AOC10	AOC10TAA2	AOC10TAA2-CF7a-1	N	4/19/2023
AOC10	AOC10TAA2	AOC10TAA2-CF8-4	N	11/29/2022
AOC10	AOC10TAA2	AOC10TAA2-CF8a-5	N	3/15/2023
AOC10	AOC10TAA2	AOC10TAA2-CF9-4	N	11/29/2022
AOC10	AOC10TAA2	AOC10TAA2-CW10-5	N	10/5/2022
AOC10	AOC10TAA2	AOC10TAA2-CW10a-5	N	4/19/2023
AOC10	AOC10TAA2	AOC10TAA2-CW11-4	N	10/5/2022
AOC10	AOC10TAA2	AOC10TAA2-CW12-3	N	11/18/2022
AOC10	AOC10TAA2	AOC10TAA2-CW12a-5	N	3/15/2023
AOC10	AOC10TAA2	AOC10TAA2-CW12b-5	N	5/1/2023
AOC10	AOC10TAA2	AOC10TAA2-CW13-3	N	11/18/2022
AOC10	AOC10TAA2	AOC10TAA2-CW1-4	N	8/21/2022
AOC10	AOC10TAA2	AOC10TAA2-CW14-3	N	11/18/2022
AOC10	AOC10TAA2	AOC10TAA2-CW15-5	N	11/18/2022
AOC10	AOC10TAA2	AOC10TAA2-CW15-5FD	FD	11/18/2022
AOC10	AOC10TAA2	AOC10TAA2-CW16-6	N	11/18/2022
AOC10	AOC10TAA2	AOC10TAA2-CW16a-4	N	11/30/2022
AOC10	AOC10TAA2	AOC10TAA2-CW16a-4FD	FD	11/30/2022

Table F8

Site/Sample Location Summary

Site	Location	Field ID	QAQC Type	Sample Date
AOC10	AOC10TAA2	AOC10TAA2-CW16a-FD-4	FD	11/30/2022
AOC10	AOC10TAA2	AOC10TAA2-CW17-4	N	11/30/2022
AOC10	AOC10TAA2	AOC10TAA2-CW18-5	N	11/30/2022
AOC10	AOC10TAA2	AOC10TAA2-CW18a-	N	5/1/2023
AOC10	AOC10TAA2	AOC10TAA2-CW18a-5	N	5/1/2023
AOC10	AOC10TAA2	AOC10TAA2-CW19-	N	11/30/2022
AOC10	AOC10TAA2	AOC10TAA2-CW19-5	N	11/30/2022
AOC10	AOC10TAA2	AOC10TAA2-CW20-1	N	12/5/2022
AOC10	AOC10TAA2	AOC10TAA2-CW20-1FD	FD	12/5/2022
AOC10	AOC10TAA2	AOC10TAA2-CW21-2	N	12/5/2022
AOC10	AOC10TAA2	AOC10TAA2-CW21a-3	N	3/6/2023
AOC10	AOC10TAA2	AOC10TAA2-CW22-2	N	12/5/2022
AOC10	AOC10TAA2	AOC10TAA2-CW22a-3	N	3/6/2023
AOC10	AOC10TAA2	AOC10TAA2-CW2-3	N	8/21/2022
AOC10	AOC10TAA2	AOC10TAA2-CW23-3	N	12/6/2022
AOC10	AOC10TAA2	AOC10TAA2-CW24-2	N	12/21/2022
AOC10	AOC10TAA2	AOC10TAA2-CW25-2	N	12/21/2022
AOC10	AOC10TAA2	AOC10TAA2-CW25-2 FD	FD	12/21/2022
AOC10	AOC10TAA2	AOC10TAA2-CW25a-3	N	1/10/2023
AOC10	AOC10TAA2	AOC10TAA2-CW26-2	N	12/21/2022
AOC10	AOC10TAA2	AOC10TAA2-CW26a-2	N	5/12/2023
AOC10	AOC10TAA2	AOC10TAA2-CW26a-2	N	5/16/2023
AOC10	AOC10TAA2	AOC10TAA2-CW26a-2FD	FD	5/12/2023
AOC10	AOC10TAA2	AOC10TAA2-CW26a-2FD	FD	5/16/2023
AOC10	AOC10TAA2	AOC10TAA2-CW27-2	N	12/21/2022
AOC10	AOC10TAA2	AOC10TAA2-CW28-2	N	12/21/2022
AOC10	AOC10TAA2	AOC10TAA2-CW28a-3	N	2/24/2023
AOC10	AOC10TAA2	AOC10TAA2-CW29-2	N	12/21/2022
AOC10	AOC10TAA2	AOC10TAA2-CW29a-4	N	3/6/2023
AOC10	AOC10TAA2	AOC10TAA2-CW2a-4	N	9/27/2022
AOC10	AOC10TAA2	AOC10TAA2-CW30-5	N	1/10/2023
AOC10	AOC10TAA2	AOC10TAA2-CW30a-5	N	4/19/2023
AOC10	AOC10TAA2	AOC10TAA2-CW30a-5FD	FD	4/19/2023
AOC10	AOC10TAA2	AOC10TAA2-CW31-4	N	1/10/2023
AOC10	AOC10TAA2	AOC10TAA2-CW32-2	N	1/10/2023
AOC10	AOC10TAA2	AOC10TAA2-CW33-2	N	1/10/2023
AOC10	AOC10TAA2	AOC10TAA2-CW33-2FD	FD	1/10/2023
AOC10	AOC10TAA2	AOC10TAA2-CW3-4	N	8/21/2022
AOC10	AOC10TAA2	AOC10TAA2-CW34-2	N	3/8/2023
AOC10	AOC10TAA2	AOC10TAA2-CW34-3	N	2/24/2023
AOC10	AOC10TAA2	AOC10TAA2-CW35-3	N	3/8/2023
AOC10	AOC10TAA2	AOC10TAA2-CW35-3FD	FD	3/8/2023
AOC10	AOC10TAA2	AOC10TAA2-CW36-2	N	3/8/2023
AOC10	AOC10TAA2	AOC10TAA2-CW37-3	N	3/9/2023

Table F8

Site/Sample Location Summary

Site	Location	Field ID	QAQC Type	Sample Date
AOC10	AOC10TAA2	AOC10TAA2-CW38-4	N	3/9/2023
AOC10	AOC10TAA2	AOC10TAA2-CW38-4	N	3/10/2023
AOC10	AOC10TAA2	AOC10TAA2-CW39-2	N	3/9/2023
AOC10	AOC10TAA2	AOC10TAA2-CW39-2	N	3/10/2023
AOC10	AOC10TAA2	AOC10TAA2-CW40-6	N	3/9/2023
AOC10	AOC10TAA2	AOC10TAA2-CW40-6	N	3/10/2023
AOC10	AOC10TAA2	AOC10TAA2-CW41-2	N	3/15/2023
AOC10	AOC10TAA2	AOC10TAA2-CW41-2FD	FD	3/15/2023
AOC10	AOC10TAA2	AOC10TAA2-CW4-4	N	8/23/2022
AOC10	AOC10TAA2	AOC10TAA2-CW5-4	N	8/23/2022
AOC10	AOC10TAA2	AOC10TAA2-CW6-4	N	9/21/2022
AOC10	AOC10TAA2	AOC10TAA2-CW6-4FD	FD	9/21/2022
AOC10	AOC10TAA2	AOC10TAA2-CW7-4	N	9/27/2022
AOC10	AOC10TAA2	AOC10TAA2-CW7-4FD	FD	9/27/2022
AOC10	AOC10TAA2	AOC10TAA2-CW8-4	N	9/27/2022
AOC10	AOC10TAA2	AOC10TAA2-CW9-5	N	10/5/2022
AOC10	AOC10TAA3	AOC10TAA3-CF1-2	N	8/11/2022
AOC10	AOC10TAA3	AOC10TAA3-CW1-1	N	8/11/2022
AOC10	AOC10TAA3	AOC10TAA3-CW2-2	N	8/11/2022
AOC10	AOC10TAA3	AOC10TAA3-CW3-2	N	8/11/2022
AOC10	AOC10TAA3	AOC10TAA3-CW4-1	N	8/11/2022
AOC10	AOC10TAA4	AOC10TAA4-CF1-5	N	8/11/2022
AOC10	AOC10TAA4	AOC10TAA4-CF2-5	N	12/14/2022
AOC10	AOC10TAA4	AOC10TAA4-CF2a-7	N	4/13/2023
AOC10	AOC10TAA4	AOC10TAA4-CF3-3	N	12/15/2022
AOC10	AOC10TAA4	AOC10TAA4-CF4-3	N	12/15/2022
AOC10	AOC10TAA4	AOC10TAA4-CF5-0	N	4/13/2023
AOC10	AOC10TAA4	AOC10TAA4-CF6-2	N	5/19/2023
AOC10	AOC10TAA4	AOC10TAA4-CF6-2	N	5/22/2023
AOC10	AOC10TAA4	AOC10TAA4-CF7-2	N	5/19/2023
AOC10	AOC10TAA4	AOC10TAA4-CF8-2	N	5/19/2023
AOC10	AOC10TAA4	AOC10TAA4-CW10-3	N	12/14/2022
AOC10	AOC10TAA4	AOC10TAA4-CW11-3	N	12/14/2022
AOC10	AOC10TAA4	AOC10TAA4-CW12-2	N	12/14/2022
AOC10	AOC10TAA4	AOC10TAA4-CW12a-1	N	12/15/2022
AOC10	AOC10TAA4	AOC10TAA4-CW12b-1	N	4/13/2023
AOC10	AOC10TAA4	AOC10TAA4-CW12b-1FD	FD	4/13/2023
AOC10	AOC10TAA4	AOC10TAA4-CW1-3	N	8/11/2022
AOC10	AOC10TAA4	AOC10TAA4-CW13-2	N	12/15/2022
AOC10	AOC10TAA4	AOC10TAA4-CW14-1	N	12/15/2022
AOC10	AOC10TAA4	AOC10TAA4-CW15-1	N	12/15/2022
AOC10	AOC10TAA4	AOC10TAA4-CW16-1	N	12/15/2022
AOC10	AOC10TAA4	AOC10TAA4-CW16a-1	N	4/13/2023
AOC10	AOC10TAA4	AOC10TAA4-CW16b-2.5	N	5/19/2023

Table F8

Site/Sample Location Summary

Site	Location	Field ID	QAQC Type	Sample Date
AOC10	AOC10TAA4	AOC10TAA4-CW16b-2.5FD	FD	5/19/2023
AOC10	AOC10TAA4	AOC10TAA4-CW16C-2	N	6/14/2023
AOC10	AOC10TAA4	AOC10TAA4-CW17-1	N	12/15/2022
AOC10	AOC10TAA4	AOC10TAA4-CW17-1FD	FD	12/15/2022
AOC10	AOC10TAA4	AOC10TAA4-CW17a-1	N	4/13/2023
AOC10	AOC10TAA4	AOC10TAA4-CW18-1	N	5/19/2023
AOC10	AOC10TAA4	AOC10TAA4-CW18-1	N	5/22/2023
AOC10	AOC10TAA4	AOC10TAA4-CW19-4	N	5/19/2023
AOC10	AOC10TAA4	AOC10TAA4-CW19-4	N	5/22/2023
AOC10	AOC10TAA4	AOC10TAA4-CW20-1	N	5/19/2023
AOC10	AOC10TAA4	AOC10TAA4-CW20-1	N	5/22/2023
AOC10	AOC10TAA4	AOC10TAA4-CW21-1	N	5/19/2023
AOC10	AOC10TAA4	AOC10TAA4-CW21-1	N	5/22/2023
AOC10	AOC10TAA4	AOC10TAA4-CW2-3	N	8/11/2022
AOC10	AOC10TAA4	AOC10TAA4-CW3-3	N	8/11/2022
AOC10	AOC10TAA4	AOC10TAA4-CW3-3FD	FD	8/11/2022
AOC10	AOC10TAA4	AOC10TAA4-CW4-3	N	8/11/2022
AOC10	AOC10TAA4	AOC10TAA4-CW5-3	N	8/11/2022
AOC10	AOC10TAA4	AOC10TAA4-CW6-3	N	12/6/2022
AOC10	AOC10TAA4	AOC10TAA4-CW7-2	N	12/14/2022
AOC10	AOC10TAA4	AOC10TAA4-CW8-2	N	12/14/2022
AOC10	AOC10TAA4	AOC10TAA4-CW9-1	N	12/14/2022
AOC11	AOC11TAA1	AOC11TAA1-CF-1-7.5	N	7/28/2022
AOC11	AOC11TAA1	AOC11TAA1-CF-2-7.5	N	7/28/2022
AOC11	AOC11TAA1	AOC11TAA1-CF-2-7.5FD	FD	7/28/2022
AOC11	AOC11TAA1	AOC11TAA1-CF-3-10	N	7/28/2022
AOC11	AOC11TAA1	AOC11TAA1-CF4-7	N	9/15/2022
AOC11	AOC11TAA1	AOC11TAA1-CF5-7	N	9/15/2022
AOC11	AOC11TAA1	AOC11TAA1-CF6-7	N	9/15/2022
AOC11	AOC11TAA1	AOC11TAA1-CF7-7	N	9/15/2022
AOC11	AOC11TAA1	AOC11TAA1-CW10-4	N	8/3/2022
AOC11	AOC11TAA1	AOC11TAA1-CW11-5	N	8/9/2022
AOC11	AOC11TAA1	AOC11TAA1-CW11a-4	N	9/14/2022
AOC11	AOC11TAA1	AOC11TAA1-CW-1-3	N	7/26/2022
AOC11	AOC11TAA1	AOC11TAA1-CW-3-6	N	7/26/2022
AOC11	AOC11TAA1	AOC11TAA1-CW-5-6	N	7/26/2022
AOC11	AOC11TAA1	AOC11TAA1-CW5a-4	N	9/15/2022
AOC11	AOC11TAA1	AOC11TAA1-CW6-3	N	8/3/2022
AOC11	AOC11TAA1	AOC11TAA1-CW6a-4	N	9/14/2022
AOC11	AOC11TAA1	AOC11TAA1-CW6a-4FD	FD	9/14/2022
AOC11	AOC11TAA1	AOC11TAA1-CW7-3	N	8/3/2022
AOC11	AOC11TAA1	AOC11TAA1-CW7a-4	N	9/15/2022
AOC11	AOC11TAA1	AOC11TAA1-CW8-3	N	8/3/2022
AOC11	AOC11TAA1	AOC11TAA1-CW9-3	N	8/3/2022

Table F8

Site/Sample Location Summary

Site	Location	Field ID	QAQC Type	Sample Date
AOC11	AOC11TAA1	AOC11TAA1-CW9a-4	N	9/15/2022
AOC14	AOC14TAA1	AOC14TAA1-CF1-6	N	2/10/2023
AOC14	AOC14TAA1	AOC14TAA1-CF1-6FD	FD	2/10/2023
AOC14	AOC14TAA1	AOC14TAA1-CF1a-10	N	11/17/2023
AOC14	AOC14TAA1	AOC14TAA1-CF2-10	N	11/17/2023
AOC14	AOC14TAA1	AOC14TAA1-CF2a-13	N	1/18/2024
AOC14	AOC14TAA1	AOC14TAA1-CF2a-13FD	FD	1/18/2024
AOC14	AOC14TAA1	AOC14TAA1-CF3-10	N	11/17/2023
AOC14	AOC14TAA1	AOC14TAA1-CF3a-13	N	1/18/2024
AOC14	AOC14TAA1	AOC14TAA1-CF4-6	N	1/11/2024
AOC14	AOC14TAA1	AOC14TAA1-CW1-	N	2/6/2023
AOC14	AOC14TAA1	AOC14TAA1-CW10-5	N	1/19/2024
AOC14	AOC14TAA1	AOC14TAA1-CW11-3	N	1/11/2024
AOC14	AOC14TAA1	AOC14TAA1-CW11-FD3	FD	1/11/2024
AOC14	AOC14TAA1	AOC14TAA1-CW1-2	N	2/6/2023
AOC14	AOC14TAA1	AOC14TAA1-CW12-5	N	1/19/2024
AOC14	AOC14TAA1	AOC14TAA1-CW1a-1	N	11/17/2023
AOC14	AOC14TAA1	AOC14TAA1-CW2-4	N	2/10/2023
AOC14	AOC14TAA1	AOC14TAA1-CW3-4	N	2/10/2023
AOC14	AOC14TAA1	AOC14TAA1-CW4-4	N	2/10/2023
AOC14	AOC14TAA1	AOC14TAA1-CW5-5	N	11/17/2023
AOC14	AOC14TAA1	AOC14TAA1-CW6-5	N	11/17/2023
AOC14	AOC14TAA1	AOC14TAA1-CW7-1	N	11/17/2023
AOC14	AOC14TAA1	AOC14TAA1-CW7a-3	N	1/11/2024
AOC14	AOC14TAA1	AOC14TAA1-CW8-4	N	1/10/2024
AOC14	AOC14TAA1	AOC14TAA1-CW9-4	N	1/10/2024
AOC16	AOC16TAA1	AOC16TAA1-CF1-1	N	10/5/2023
AOC16	AOC16TAA1	AOC16TAA1-CW1-0.5	N	10/5/2023
AOC16	AOC16TAA1	AOC16TAA1-CW1-0.5FD	FD	10/5/2023
AOC16	AOC16TAA1	AOC16TAA1-CW1a-0.5	N	11/10/2023
AOC16	AOC16TAA1	AOC16TAA1-CW2-0.5	N	10/5/2023
AOC16	AOC16TAA1	AOC16TAA1-CW3-0.5	N	10/5/2023
AOC16	AOC16TAA1	AOC16TAA1-CW4-0.5	N	10/5/2023
AOC27	AOC27TAA1	AOC27TAA1-CF1-5	N	10/13/2023
AOC27	AOC27TAA1	AOC27TAA1-CF2-7	N	10/25/2023
AOC27	AOC27TAA1	AOC27TAA1-CW1-3	N	10/13/2023
AOC27	AOC27TAA1	AOC27TAA1-CW1-3FD	FD	10/13/2023
AOC27	AOC27TAA1	AOC27TAA1-CW2-3	N	10/13/2023
AOC27	AOC27TAA1	AOC27TAA1-CW3-4	N	10/13/2023
AOC27	AOC27TAA1	AOC27TAA1-CW4-1.5	N	10/13/2023
AOC27	AOC27TAA1	AOC27TAA1-CW5-3	N	10/25/2023
AOC9	AOC9TAA1	AOC9TAA1-CF1-3	N	7/17/2023
AOC9	AOC9TAA1	AOC9TAA1-CW1-2	N	7/17/2023
AOC9	AOC9TAA1	AOC9TAA1-CW2-2	N	7/17/2023

Table F8

Site/Sample Location Summary

Site	Location	Field ID	QAQC Type	Sample Date
AOC9	AOC9TAA1	AOC9TAA1-CW2a-1	N	9/8/2023
AOC9	AOC9TAA1	AOC9TAA1-CW3-2	N	7/17/2023
AOC9	AOC9TAA1	AOC9TAA1-CW4-2	N	7/17/2023
AOC9	AOC9TAA1	AOC9TAA1-CW4a-1	N	9/8/2023
LowerSpy	LowerSpy-PS1	LowerSpy-PS1-2024	N	3/14/2024
LowerSpy	LowerSpy-PS1	LowerSpy-PS17-2024	N	3/29/2024
LowerSpy	LowerSpy-PS1	LowerSpy-PS22-2024	N	3/29/2024
LowerSpy	LowerSpy-PS10	LowerSpy-PS10-2024	N	2/27/2024
LowerSpy	LowerSpy-PS10	LowerSpy-PS10a-2024	N	3/19/2024
LowerSpy	LowerSpy-PS10	LowerSpy-PS10b-2024	N	4/3/2024
LowerSpy	LowerSpy-PS11	LowerSpy-PS11-2024	N	2/27/2024
LowerSpy	LowerSpy-PS11	LowerSpy-PS11a-2024	N	3/14/2024
LowerSpy	LowerSpy-PS12	LowerSpy-PS12-2024	N	2/23/2024
LowerSpy	LowerSpy-PS13	LowerSpy-PS13-2024	N	3/5/2024
LowerSpy	LowerSpy-PS13	LowerSpy-PS13a-2024	N	4/3/2024
LowerSpy	LowerSpy-PS14	LowerSpy-PS14-2024	N	3/5/2024
LowerSpy	LowerSpy-PS14	LowerSpy-PS14a-2024	N	3/14/2024
LowerSpy	LowerSpy-PS15	LowerSpy-PS15-2024	N	3/5/2024
LowerSpy	LowerSpy-PS15	LowerSpy-PS15a-2024	N	3/14/2024
LowerSpy	LowerSpy-PS16	LowerSpy-PS16-2024	N	2/23/2024
LowerSpy	LowerSpy-PS16	LowerSpy-PS16a-2024	N	3/21/2024
LowerSpy	LowerSpy-PS16	LowerSpy-PS16b-2024	N	4/3/2024
LowerSpy	LowerSpy-PS16	LowerSpy-PS16c-2024	N	4/23/2024
LowerSpy	LowerSpy-PS18	LowerSpy-PS18-2024	N	5/1/2024
LowerSpy	LowerSpy-PS19	LowerSpy-PS19-2024	N	5/1/2024
LowerSpy	LowerSpy-PS19	LowerSpy-PS19-2024FD	FD	5/1/2024
LowerSpy	LowerSpy-PS2	LowerSpy-PS2-2024	N	3/14/2024
LowerSpy	LowerSpy-PS20	LowerSpy-PS20-2024	N	5/1/2024
LowerSpy	LowerSpy-PS21	LowerSpy-PS21-2024	N	3/28/2024
LowerSpy	LowerSpy-PS22	LowerSpy-PS22a-2024	N	4/16/2024
LowerSpy	LowerSpy-PS3	LowerSpy-PS3-2024	N	3/14/2024
LowerSpy	LowerSpy-PS3	LowerSpy-PS3a-2024	N	4/3/2024
LowerSpy	LowerSpy-PS3	LowerSpy-PS3a-2024FD	FD	4/3/2024
LowerSpy	LowerSpy-PS4	LowerSpy-PS4-2024	N	3/19/2024
LowerSpy	LowerSpy-PS5	LowerSpy-PS5-2024	N	2/29/2024
LowerSpy	LowerSpy-PS6N	LowerSpy-PS6N-2024	N	2/27/2024
LowerSpy	LowerSpy-PS6N	LowerSpy-PS6Na-2024	N	3/21/2024
LowerSpy	LowerSpy-PS6N	LowerSpy-PS6Nb-2024	N	4/3/2024
LowerSpy	LowerSpy-PS6S	LowerSpy-PS6S-2024	N	2/27/2024
LowerSpy	LowerSpy-PS6S	LowerSpy-PS6Sa-2024	N	3/21/2024
LowerSpy	LowerSpy-PS6S	LowerSpy-PS6Sa-2024FD	FD	3/21/2024
LowerSpy	LowerSpy-PS6S	LowerSpy-PS6Sb-2024	N	4/3/2024
LowerSpy	LowerSpy-PS7	LowerSpy-PS7-2024	N	3/5/2024
LowerSpy	LowerSpy-PS8	LowerSpy-PS8-2024	N	2/23/2024

Table F8

Site/Sample Location Summary

Site	Location	Field ID	QAQC Type	Sample Date
LowerSpy	LowerSpy-PS8	LowerSpy-PS8a-2024	N	3/19/2024
LowerSpy	LowerSpy-PS8	LowerSpy-PS8a-2024FD	FD	3/19/2024
LowerSpy	LowerSpy-PS9	LowerSpy-PS9-2024	N	2/23/2024
LowerSpy	LowerSpy-PS9	LowerSpy-PS9a-2024	N	3/19/2024
SWMU1	SWMU1TAA1	SWMU1TAA1-CF10-6	N	2/16/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CF10a-	N	2/28/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CF10a-7	N	2/28/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CF1-10	N	10/10/2022
SWMU1	SWMU1TAA1	SWMU1TAA1-CF11-10	N	6/23/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CF12-10	N	6/23/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CF12-10FD	FD	6/23/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CF13-10	N	9/19/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CF14-10	N	9/22/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CF15-10	N	9/22/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CF16-10	N	10/3/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CF17-10	N	10/25/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CF18-10	N	10/25/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CF19-10	N	11/14/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CF20-10	N	11/30/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CF2-10	N	10/10/2022
SWMU1	SWMU1TAA1	SWMU1TAA1-CF21-5	N	12/1/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CF22-10	N	12/19/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CF3-10	N	10/11/2022
SWMU1	SWMU1TAA1	SWMU1TAA1-CF4-10	N	10/13/2022
SWMU1	SWMU1TAA1	SWMU1TAA1-CF5-8	N	1/18/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CF6-4	N	1/27/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CF7-6	N	2/1/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CF8-3	N	2/1/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CF9-6	N	2/16/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CF9a-7	N	2/28/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW10-2	N	2/1/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW10a-2	N	2/16/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW11-1	N	2/1/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW12-2	N	2/1/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW13-4	N	2/16/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW14-5	N	2/16/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW1-5	N	10/8/2022
SWMU1	SWMU1TAA1	SWMU1TAA1-CW15-2	N	2/16/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW1-5FD	FD	10/8/2022
SWMU1	SWMU1TAA1	SWMU1TAA1-CW16-5	N	6/23/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW17-5	N	9/19/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW18-6	N	9/19/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW19-5	N	9/19/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW20-6	N	9/22/2023

Table F8

Site/Sample Location Summary

Site	Location	Field ID	QAQC Type	Sample Date
SWMU1	SWMU1TAA1	SWMU1TAA1-CW20a-5	N	10/25/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW21-6	N	9/27/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW22-6	N	10/3/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW23-2	N	10/3/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW24-7	N	10/5/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW24a-5	N	10/25/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW2-5	N	10/10/2022
SWMU1	SWMU1TAA1	SWMU1TAA1-CW25-7	N	10/19/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW25a-5	N	10/25/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW26-7	N	10/19/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW26-7FD	FD	10/19/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW26a-5	N	12/19/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW27-5	N	10/25/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW27-FD	FD	10/25/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW28-5	N	10/25/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW29-5	N	11/14/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW29a-4	N	11/29/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW2a-5	N	11/14/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW30-5	N	11/30/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW31-5	N	11/30/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW32-4	N	12/1/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW32a-4	N	12/8/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW32a-4FD	FD	12/8/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW33-4	N	12/1/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW34-4	N	12/1/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW3-5	N	10/11/2022
SWMU1	SWMU1TAA1	SWMU1TAA1-CW35-5	N	12/19/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW36-3	N	12/20/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW36-3FD	FD	12/20/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW37-3	N	12/20/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW38-4	N	12/20/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW39-4	N	12/20/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW3a-5	N	6/23/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW40-4	N	12/20/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW40-4	N	12/21/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW4-5	N	10/11/2022
SWMU1	SWMU1TAA1	SWMU1TAA1-CW5-5	N	10/13/2022
SWMU1	SWMU1TAA1	SWMU1TAA1-CW6-6	N	1/18/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW7-5	N	1/18/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW7a-5	N	11/14/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW7b-6	N	11/30/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW8-2	N	1/27/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW8-2FD	FD	1/27/2023
SWMU1	SWMU1TAA1	SWMU1TAA1-CW9-2	N	1/27/2023

Table F8

Site/Sample Location Summary

Site	Location	Field ID	QAQC Type	Sample Date
SWMU1	SWMU1TAA2	SWMU1TAA2-CF1-4	N	12/8/2023
SWMU1	SWMU1TAA2	SWMU1TAA2-CF2-4	N	12/11/2023
SWMU1	SWMU1TAA2	SWMU1TAA2-CF3-4	N	12/14/2023
SWMU1	SWMU1TAA2	SWMU1TAA2-CW1-3	N	12/8/2023
SWMU1	SWMU1TAA2	SWMU1TAA2-CW2-3	N	12/11/2023
SWMU1	SWMU1TAA2	SWMU1TAA2-CW3-3	N	12/11/2023
SWMU1	SWMU1TAA2	SWMU1TAA2-CW4-1.5	N	12/12/2023
SWMU1	SWMU1TAA2	SWMU1TAA2-CW4-1.5FD	FD	12/12/2023
SWMU1	SWMU1TAA2	SWMU1TAA2-CW5-3	N	12/14/2023
SWMU1	SWMU1TAA2	SWMU1TAA2-CW6-1.5	N	12/14/2023
SWMU1	SWMU1TAA2	SWMU1TAA2-CW6-1.5FD	FD	12/14/2023
SWMU1	SWMU1TAA2	SWMU1TAA2-CW6-FD-1.5	FD	12/14/2023
SWMU1	SWMU1TAA2	SWMU1TAA2-CW7-3	N	12/15/2023
SWMU1	SWMU1TAA2	SWMU1TAA2-CW8-3	N	12/15/2023
SWMU1	SWMU1TAA3	SWMU1TAA3-CF1-3	N	11/28/2023
SWMU1	SWMU1TAA3	SWMU1TAA3-CF1a-3	N	12/4/2023
SWMU1	SWMU1TAA3	SWMU1TAA3-CW1-2	N	11/28/2023
SWMU1	SWMU1TAA3	SWMU1TAA3-CW2-2	N	11/28/2023
SWMU1	SWMU1TAA3	SWMU1TAA3-CW3-2	N	11/28/2023
SWMU1	SWMU1TAA3	SWMU1TAA3-CW4-2	N	11/28/2023
SWMU1	SWMU1TAA3	SWMU1TAA3-CW4a-1.5	N	1/12/2024
SWMU1	SWMU1TAA3	SWMU1TAA3-CW5-2	N	12/4/2023
UpperSpy	UpperSpy-PS1	UpperSpy-PS1-2024	N	3/28/2024
UpperSpy	UpperSpy-PS1	UpperSpy-PS3-2024	N	3/29/2024
UpperSpy	UpperSpy-PS1	UpperSpy-PS3-2024FD	FD	3/29/2024
UpperSpy	UpperSpy-PS1	UpperSpy-PS4-2024	N	3/29/2024
UpperSpy	UpperSpy-PS1	UpperSpy-PS5-2024	N	3/29/2024
UpperSpy	UpperSpy-PS1	UpperSpy-PS6-2024	N	3/29/2024
UpperSpy	UpperSpy-PS1	UpperSpy-PS7-2024	N	3/29/2024
UpperSpy	UpperSpy-PS2	UpperSpy-PS2-2024	N	3/28/2024
UpperSpy	UpperSpy-PS7	UpperSpy-PS7R-2024	N	4/16/2024

Appendix G

Waste Characterization Sample Analytical Laboratory Reports

Due to file size, the Laboratory Reports are available upon request.

Appendix G. Sample ID to SDG Crosswalk Table

Soil NTCRA Completion Report

Topock Compressor Station, Needles, California

Asset Laboratories SDG	Waste Characterization Sample ID
N051797	AOC10TAA1-10-20_WC
	AOC10TAA1-comp_WC
N051798	AOC10TAA1-10-20_WC
	AOC10TAA1-comp_WC
N052200	AOC11TAA1-comp_WC1
	AOC11TAA1-comp_WC2
N052201	AOC11TAA1-comp_WC1
	AOC11TAA1-comp_WC2
N052227	AOC10TAA2-WC1
N052285	AOC10TAA2-WC2
N054902	AOC10TAA2-WC3
	AOC10TAA2-WC4
N054969	AOC10TAA2-WC2R
N055044	ACM1_021423
N055100	IDW-AOC14-DRVWY-001
N055270	AOC14TAA1-WC1
	AOC14TAA1-WC2
	AOC14TAA1-WC3
	AOC14TAA1-WC4
N055428	AOC10TAA2-WC5
	AOC10TAA2-WC6
	AOC10TAA2-WC7
N055532	AOC10TAA2-WC8
	AOC10TAA2-WC9
N056121	AOC10TAA2-WC10
N056804	AOC10TAA2-WC11
	AOC10TAA2-WC12
	AOC10TAA2-WC13
N057024	AOC10TAA2-WC14
	AOC10TAA2-WC15
	AOC10TAA2-WC16
N057278	AOC10TAA2-STORM
N057387	AOC10TAA2-WC17
	AOC10TAA2-WC18
N058014	AOC9TAA1-WC1
N058109	AOC10TAA1-WC1
	AOC10TAA1-WC2
	AOC10TAA1-WC3
N058236	AOC1TAA1-WC1
N058237	AOC10TAA1-WC4
N058457	SWMU1TAA1-WC3
N058554	AOC1TAA3-WC2
N058672	SWMU1TAA1-WC4
N058673	SWMU1TAA1-WC4
N058691	AOC10TAA1-WC6
N058741	AOC10TAA1-WC7

Appendix G. Sample ID to SDG Crosswalk Table

Soil NTCRA Completion Report

Topock Compressor Station, Needles, California

Asset Laboratories SDG	Waste Characterization Sample ID
N058742	AOC10TAA1-WC8
N058777	AOC10TAA1-WC10
	AOC10TAA1-WC9
N058856	AOC10TAA1-WC11
N058897	SWMU1TAA1-WC5
N058955	AOC10TAA1-WC12
	AOC10TAA1-WC13
N059206	AOC10TAA1-WC15
N059255	AOC9TAA1-WC2
N059256	SWMU1TAA1-WC6
N059363	AOC10TAA1-WC14
	AOC10TAA1-WC16
	AOC10TAA1-WC17
	AOC10TAA1-WC18
N059665	SWMU1TAA1-WC7
	SWMU1TAA1-WC8
N059807	AOC1TAA1-WC2
N059861	SWMU1TAA1-WC9
N059987	SWMU1TAA1-WC10
N060012	SWMUT1AA1-WC11
	SWMUT1AA1-WC12
	SWMUT1AA1-WC13
N060063	AOC16TAA1-WC1
N060139	AOC27TAA1-WC1
N060486	NTCRA-TCS-4-PipelDW-October 2023
N060487	AOC10TAA1-WC19
N060488	SWMU1TAA1-WC14
	SWMU1TAA1-WC15
	SWMU1TAA1-WC16
	SWMU1TAA1-WC17
N060567	AOC27TAA1-WC2
N060568	AOC1TAA2-WC1
	AOC1TAA2-WC2
N060622	AOC1TAA1-WC3
N060811	AOC10TAA1-WC20
	AOC10TAA1-WC21
	AOC10TAA1-WC22
N060897	SWMU1TAA1-WC18
N061054	SWMU1TAA1-WC19
N061561	SWMU1TAA1-WC20
	SWMU1TAA1-WC21
	SWMU1TAA1-WC22
N061597	AOC27TAA1-WC3
N061714	SWMU1TAA2-WC1
N061716	SWMU1TAA2-WC2
N061796	SWMU1TAA3-WC1

Appendix G. Sample ID to SDG Crosswalk Table

Soil NTCRA Completion Report

Topock Compressor Station, Needles, California

Asset Laboratories SDG	Waste Characterization Sample ID
N061797	SWMU1TAA1-WC23
N061836	SWMU1TAA2-WC3
	SWMU1TAA2-WC4
N061961	SWMU1TAA2-WC5
	SWMU1TAA2-WC6
	SWMU1TAA2-WC7
N061962	SWMU1TAA1-WC24
	SWMU1TAA1-WC25
N062315	AOC14TAA1-WC5-2
	AOC14TAA1-WC6-4
	AOC14TAA1-WC7-2
	AOC14TAA1-WC8-4
N062430	AOC1TAA2-WC3
N062484	AOC1TAA2-WC4
N062507	AOC14TAA1-WC9-4
	AOC14TAA1-WC10-6
N062645	SWMU1TAA1-WC26
	SWMU1TAA1-WC27
N062732	SWMU1TAA1-WC28
N062733	SPY-ENTRNC-Soil-WC01
N062734	NTCRA-Frac1349-Soil-WC01
N063009	SWMU1TAA1-WC29
	SWMU1TAA1-WC30
N063051	AOC14TAA1-WC11
	SWMU1TAA3-WC2
N063246	AOC14TAA1-WC12
N063331	AOC14TAA1-WC14
	LowerSpy-PS12-2024
	LowerSpy-PS16-2024
	LowerSpy-PS8-2024
	LowerSpy-PS9-2024
N063407	AOC14TAA1-WC13
N063472	LowerSPY-FloorScrapings-2024
N063978	LowerSPY-StallScrapings-2024
N064190	LowerSPY-FloorScrapings2-2024
	LowerSPY-FloorScrapings3-2024

Appendix G. Sample ID to SDG Crosswalk Table

Soil NTCRA Completion Report

Topock Compressor Station, Needles, California

Asset Laboratories SDG	Waste Characterization Sample ID
N064324	LowerSPY-FloorScrapings4-2024
570-171742-1	AOC14TAA1-WC5-2
	AOC14TAA1-WC6-4
	AOC14TAA1-WC7-2
	AOC14TAA1-WC8-4
570-179043-1	LowerSPY-FloorScrapings4-2024

ACM = asbestos-containing material

AOC = area of concern

ID = identification

NTCRA = non-time-critical removal action

SDG = sample delivery group

SPY = Soil Processing Yard

SWMU = solid waste management unit

TAA = target action area

Appendix H

Waste Management Documentation

Due to file size, scanned waste profiles and manifests are available upon request.

Appendix H. Waste Documentation Index
Soil NTCRA Completion Report
Topock Compressor Station, Needles, California

Table H-1. Nonhazardous Waste Tracking Log
Table H-2. Hazardous Waste Tracking Log
Table H-3. Waste Profile Index
Table H-4. Waste Manifest Index

NTCRA = non-time-critical removal action

Table H-1. Nonhazardous Waste Tracking Log
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

Project #	Task Name	Site or Task Description	Container Type	Bin ID (Truck #)	Accumulation Start Date	Waste Profile	Transporter	Date Transported	Transporter DOT # and EPA ID	Disposal Facility	Disposal Facility State ID or EPA ID	Matrix	Waste Type (Haz, Nonhaz, TSCA)	Waste Code (RCRA then State)	Disposal Facility Date (found on final manifest)	Manifest #	Incineration	Landfill (tons)	Recycle	Onsite	Comments/Notes
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	11	8/24/2022	51242213264	GWP	9/29/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	9/29/2022	AOC-11-0202209-01	N/A	18.52	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	105	8/24/2022	51242213264	GWP	10/4/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/4/2022	AOC-11-202210-03	N/A	17.38	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	111	8/24/2022	51242213264	GWP	10/4/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/4/2022	AOC-11-202210-01	N/A	18.48	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	106	8/24/2022	51242213264	GWP	10/4/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/4/2022	AOC-11-202210-02	N/A	18.88	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	107	8/24/2022	51242213264	GWP	10/4/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/5/2022	AOC-11-202210-04	N/A	15.71	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	105	8/24/2022	51242213264	GWP	10/5/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/5/2022	AOC-11-202210-09	N/A	17.59	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	106	8/24/2022	51242213264	GWP	10/5/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/5/2022	AOC-11-202210-11	N/A	17.92	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	107	8/24/2022	51242213264	GWP	10/5/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/5/2022	AOC-11-202210-10	N/A	20.93	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	106	8/24/2022	51242213264	GWP	10/5/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/6/2022	AOC-11-202210-05	N/A	17.08	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	111	8/24/2022	51242213264	GWP	10/5/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/6/2022	AOC-11-202210-06	N/A	17.84	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	107	8/24/2022	51242213264	GWP	10/5/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/6/2022	AOC-11-202210-08	N/A	18.61	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	105	8/24/2022	51242213264	GWP	10/5/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/6/2022	AOC-11-202210-07	N/A	18.62	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	111	8/26/2022	51242213264	GWP	10/7/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/7/2022	AOC-11-202210-13	N/A	15.25	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	111	8/25/2022	51242213264	GWP	10/7/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/7/2022	AOC-11-202210-12	N/A	18.06	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	111	8/26/2022	51242213264	GWP	10/13/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/14/2022	AOC-11-202210-15	N/A	14.55	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	105	8/26/2022	51242213264	GWP	10/14/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/15/2022	AOC-11-202210-14	N/A	16.20	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	105	8/27/2022	51242213264	GWP	10/26/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/27/2022	AOC-11-202210-16	N/A	18.59	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	105	8/27/2022	51242213264	GWP	10/28/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/28/2022	AOC-11-202210-18	N/A	16.40	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	106	8/27/2022	51242213264	GWP	10/28/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/28/2022	AOC-11-202210-19	N/A	16.41	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	105	8/27/2022	51242213264	GWP	10/28/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/28/2022	AOC-11-202210-20	N/A	16.73	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	106	8/27/2022	51242213264	GWP	10/28/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/28/2022	AOC-11-202210-21	N/A	17.16	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	111	8/27/2022	51242213264	GWP	10/28/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/28/2022	AOC-11-202210-17	N/A	17.42	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	105	8/29/2022	51242213264	GWP	10/31/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/31/2022	AOC-11-202210-23	N/A	14.91	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	106	8/30/2022	51242213264	GWP	10/31/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/31/2022	AOC-11-202210-24	N/A	16.04	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	111	8/31/2022	51242213264	GWP	10/31/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/31/2022	AOC-11-202210-28	N/A	16.78	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	106	8/31/2022	51242213264	GWP	10/31/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/31/2022	AOC-11-202210-29	N/A	16.84	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	111	8/31/2022	51242213264	GWP	10/31/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/31/2022	AOC-11-202210-25	N/A	17.09	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	105	8/31/2022	51242213264	GWP	10/31/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/31/2022	AOC-11-202210-27	N/A	17.36	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	106	8/31/2022	51242213264	GWP	11/1/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/1/2022	AOC-11-202211-3	N/A	15.83	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	105	8/31/2022	51242213264	GWP	11/1/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/1/2022	AOC-11-202211-4	N/A	16.63	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	111	8/31/2022	51242213264	GWP	11/1/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/1/2022	AOC-11-202211-2	N/A	16.71	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	107	8/31/2022	51242213264	GWP	11/1/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/1/2022	AOC-11-202211-1	N/A	22.26	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	106	8/31/2022	51242213264	GWP	11/1/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/2/2022	AOC-11-202211-7	N/A	16.74	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	105	8/31/2022	51242213264	GWP	11/1/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/2/2022	AOC-11-202211-8	N/A	17.76	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	111	8/31/2022	51242213264	GWP	11/1/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/2/2022	AOC-11-202211-6	N/A	18.26	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	107	8/31/2022	51242213264	GWP	11/1/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/2/2022	AOC-11-202211-5	N/A	19.25	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	111	8/31/2022	51242213264	GWP	11/2/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/3/2022	AOC-11-202211-12	N/A	16.62	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	107	8/31/2022	51242213264	GWP	11/2/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/3/2022	AOC-11-202211-11	N/A	19.10	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	105	8/31/2022	51242213264	GWP	11/2/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/4/2022	AOC-11-202211-10	N/A	15.83	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	106	8/31/2022	51242213264	GWP	11/4/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/4/2022	AOC-11-202211-13	N/A	16.54	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	106	8/31/2022	51242213264	GWP	11/2/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/4/2022	AOC-11-202211-9	N/A	16.65	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	105	8/31/2022	51242213264	GWP	11/4/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/4/2022	AOC-11-202211-14	N/A	16.66	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	106	8/31/2022	51242213264	GWP	11/14/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/4/2022	AOC-11-202211-45	N/A	16.93	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	105	8/31/2022	51242213264	GWP	11/7/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/7/2022	AOC-11-202211-22	N/A	15.73	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	106	8/31/2022	51242213264	GWP	11/6/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/7/2022	AOC-11-202211-18	N/A	17.46	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	106	8/31/2022	51242213264	GWP	11/7/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/7/2022	AOC-11-202211-21	N/A	17.54	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	111	8/31/2022	51242213264	GWP	11/7/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/7/2022	AOC-11-202211-20	N/A	17.73	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	105	8/31/2022	51242213264	GWP	11/6/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/7/2022	AOC-11-202211-17	N/A	18.15	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	111	8/31/2022	51242213264	GWP	11/6/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/7/2022	AOC-11-202211-16	N/A	18.24	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	107	8/31/2022	51242213264	GWP	11/6/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/7/2022	AOC-11-202211-15	N/A	19.26	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	107	8/31/2022	51242213264	GWP	11/7/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/7/2022	AOC-11-202211-19	N/A	22.04	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	106	8/31/2022	51242213264	GWP	11/7/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/8/2022	AOC-11-202211-25	N/A	12.24	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	111	8/31/2022	51242213264	GWP	11/7/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/8/2022	AOC-11-202211-24	N/A	13.22	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	105	8/31/2022	51242213264	GWP	11/7/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/8/2022	AOC-11-202211-26	N/A	16.01	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	107	8/31/2022	51242213264	GWP	11/7/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/8/2022	AOC-11-202211-23	N/A	16.58	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	106	8/31/2022	51242213264	GWP	11/8/2022	N/A	La Paz	AZR000520882	So									

Table H-1. Nonhazardous Waste Tracking Log
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

Project #	Task Name	Site or Task Description	Container Type	Bin ID (Truck #)	Accumulation Start Date	Waste Profile	Transporter	Date Transported	Transporter DOT # and EPA ID	Disposal Facility	Disposal Facility State ID or EPA ID	Matrix	Waste Type (Haz, Nonhaz, TSCA)	Waste Code (RCRA then State)	Disposal Facility Date (found on final manifest)	Manifest #	Incineration	Landfill (tons)	Recycle	Onsite	Comments/Notes
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	106	8/31/2022	51242213264	GWP	11/14/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/14/2022	AOC-11-202211-47	N/A	18.18	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	107	8/31/2022	51242213264	GWP	11/14/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/14/2022	AOC-11-202211-44	N/A	18.19	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	107	8/31/2022	51242213264	GWP	11/14/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/14/2022	AOC-11-202211-46	N/A	18.21	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	105	8/31/2022	51242213264	GWP	11/15/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/16/2022	AOC-11-202211-48	N/A	13.62	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	107	8/9/2022	51242215499	GWP	11/15/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/16/2022	AOC-10-202211-01	N/A	18.62	N/A	N/A	
D31084AZ	Soil NTCRA	AOC11TAA1	Truck	107	8/31/2022	51242213264	GWP	11/15/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/17/2022	AOC-11-202211-49	N/A	18.86	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	111	8/9/2022	51242215499	GWP	11/16/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/17/2022	AOC-10-202211-02	N/A	15.09	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	107	8/9/2022	51242215499	GWP	11/16/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/18/2022	AOC-10-202211-03	N/A	11.77	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	106	8/9/2022	51242215499	GWP	11/20/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/21/2022	AOC-10-202211-05	N/A	15.16	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	106	8/9/2022	51242215499	GWP	11/29/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/21/2022	AOC-10-202211-16	N/A	15.80	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	107	8/9/2022	51242215499	GWP	11/20/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/21/2022	AOC-10-202211-06	N/A	16.43	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	106	8/9/2022	51242215499	GWP	11/29/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/21/2022	AOC-10-202211-15	N/A	16.88	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	111	8/9/2022	51242215499	GWP	11/20/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/21/2022	AOC-10-202211-04	N/A	17.20	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	106	8/9/2022	51242215499	GWP	11/29/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/21/2022	AOC-10-202211-14	N/A	18.85	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	111	8/9/2022	51242215499	GWP	11/21/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/22/2022	AOC-10-202211-08	N/A	15.19	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	106	8/9/2022	51242215499	GWP	11/21/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/22/2022	AOC-10-202211-09	N/A	15.32	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	107	8/9/2022	51242215499	GWP	11/21/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/22/2022	AOC-10-202211-07	N/A	15.41	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	111	8/9/2022	51242215499	GWP	11/22/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/22/2022	AOC-10-202211-11	N/A	16.61	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	106	8/9/2022	51242215499	GWP	11/22/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/22/2022	AOC-10-202211-10	N/A	16.71	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	106	8/9/2022	51242215499	GWP	11/22/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/22/2022	AOC-10-202211-12	N/A	17.76	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	111	8/31/2022	51242215499	GWP	11/23/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/23/2022	AOC-10-202211-13	N/A	15.86	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	106	8/9/2022	51242215499	GWP	12/1/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/1/2022	AOC10-202212-02	N/A	15.06	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	106	8/9/2022	51242215499	GWP	12/1/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/1/2022	AOC10-202211-18	N/A	16.83	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	107	8/9/2022	51242215499	GWP	11/30/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/1/2022	AOC10-202211-17	N/A	19.15	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	106	8/9/2022	51242215499	GWP	12/1/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/2/2022	AOC10-202212-03	N/A	16.44	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	107	8/9/2022	51242215499	GWP	12/1/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/2/2022	AOC10-202212-01	N/A	18.71	N/A	N/A	Transporter copy incorrectly states 11/1/2022
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	107	8/9/2022	51242215499	GWP	12/2/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/2/2022	AOC10-202212-04	N/A	19.66	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	107	8/9/2022	51242215499	GWP	12/5/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/5/2022	AOC10-202212-08	N/A	17.42	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	106	8/9/2022	51242215499	GWP	12/5/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/5/2022	AOC10-202212-05	N/A	17.51	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	106	8/9/2022	51242215499	GWP	12/5/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/5/2022	AOC10-202212-07	N/A	17.60	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	107	8/9/2022	51242215499	GWP	12/5/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/5/2022	AOC10-202212-06	N/A	18.92	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	108	8/9/2022	51242215499	GWP	12/6/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/6/2022	AOC10-202212-11	N/A	13.51	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	106	8/9/2022	51242215499	GWP	12/6/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/6/2022	AOC10-202212-09	N/A	15.01	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	106	8/9/2022	51242215499	GWP	12/6/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/6/2022	AOC10-202212-12	N/A	15.74	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	107	8/9/2022	51242215499	GWP	12/6/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/6/2022	AOC10-202212-10	N/A	16.57	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	106	8/9/2022	51242215499	GWP	12/7/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/7/2022	AOC10-202212-14	N/A	15.40	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	106	8/9/2022	51242215499	GWP	12/8/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/8/2022	AOC10-202212-15	N/A	13.24	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	106	8/9/2022	51242215499	GWP	12/7/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/7/2022	AOC10-202212-13	N/A	17.36	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	106	8/9/2022	51242215499	GWP	12/12/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/12/2022	AOC10-202212-17	N/A	16.55	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	106	8/9/2022	51242215499	GWP	12/12/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/12/2022	AOC10-202212-16	N/A	17.41	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	106	8/9/2022	51242215499	GWP	12/13/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/13/2022	AOC10-202212-19	N/A	13.85	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	106	8/9/2022	51242215499	GWP	12/13/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/13/2022	AOC10-202212-18	N/A	16.39	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	106	8/9/2022	51242215499	GWP	12/14/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/14/2022	AOC10-202212-20	N/A	15.71	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	106	8/9/2022	51242215499	GWP	12/14/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/14/2022	AOC10-202212-21	N/A	16.43	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	106	8/9/2022	51242215499	GWP	12/15/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/15/2022	AOC10-202212-22	N/A	15.90	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	106	8/9/2022	51242215499	GWP	12/15/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/15/2022	AOC10-202212-23	N/A	16.20	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	106	8/9/2022	51242215499	GWP	12/16/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/16/2022	AOC10-202212-24	N/A	16.31	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	106	8/9/2022	51242215499	GWP	12/16/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/16/2022	AOC10-202212-25	N/A	17.27	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	106	8/9/2022	51242215499	GWP	12/19/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/19/2022	AOC10-202212-27	N/A	17.01	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	106	8/9/2022	51242215499	GWP	12/19/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/19/2022	AOC10-202212-26	N/A	17.38	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	106	8/9/2022	51242215499	GWP	12/20/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/20/2022	AOC10-202212-29	N/A	16.85	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	106	8/9/2022	51242215499	GWP	12/20/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/20/2022	AOC10-202212-28	N/A	17.08	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	106	8/9/2022	51242215499	GWP	12/21/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/21/2022	AOC10-202212-30	N/A	18.92	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	106	8/9/2022	51242215499	GWP	12/22/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/22/2022	AOC10-202212-32	N/A	11.67	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	106	8/9/2022	51242215499	GWP	12/22/2022	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/22/2022	AOC10-202212-31	N/A	17.94	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	106	8/9/2022	51242215499	GWP	1/3/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A							

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Topock Compressor Station, Needles, California

Project #	Task Name	Site or Task Description	Container Type	Bin ID (Truck #)	Accumulation Start Date	Waste Profile	Transporter	Date Transported	Transporter DOT # and EPA ID	Disposal Facility	Disposal Facility State ID or EPA ID	Matrix	Waste Type (Haz, Nonhaz, TSCA)	Waste Code (RCRA then State)	Disposal Date (found on final manifest)	Manifest #	Incineration	Landfill (tons)	Recycle	Onsite	Comments/Notes
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	4/24/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	4/24/2023	AOC-10-202304-72	N/A	15.31	N/A	N/A	174935
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	4/24/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	4/24/2023	AOC-10-202304-73	N/A	15.33	N/A	N/A	174953
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	4/24/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	4/24/2023	AOC-10-202304-75	N/A	15.42	N/A	N/A	174966
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	4/24/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	4/24/2023	AOC-10-202304-69	N/A	15.91	N/A	N/A	174908
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	4/24/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	4/24/2023	AOC-10-202304-71	N/A	20.98	N/A	N/A	174940
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	4/24/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	4/24/2023	AOC-10-202304-76	N/A	21.63	N/A	N/A	174974
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	4/24/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	4/25/2023	AOC-10-202304-78	N/A	13.86	N/A	N/A	174991
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	4/25/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	4/25/2023	AOC-10-202304-82	N/A	14.88	N/A	N/A	175043
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	4/24/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	4/25/2023	AOC-10-202304-77	N/A	15.17	N/A	N/A	174994
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	4/25/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	4/25/2023	AOC-10-202304-80	N/A	15.18	N/A	N/A	175018
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	4/25/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	4/25/2023	AOC-10-202304-84	N/A	15.27	N/A	N/A	175061
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	4/25/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	4/25/2023	AOC-10-202304-81	N/A	15.67	N/A	N/A	175038
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	4/25/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	4/25/2023	AOC-10-202304-83	N/A	20.93	N/A	N/A	175060
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	4/25/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	4/25/2023	AOC-10-202304-79	N/A	21.12	N/A	N/A	175015
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	4/26/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	4/26/2023	AOC-10-202304-90	N/A	14.51	N/A	N/A	175155
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	4/26/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	4/26/2023	AOC-10-202304-89	N/A	15.13	N/A	N/A	175144
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	4/26/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	4/26/2023	AOC-10-202304-91	N/A	15.28	N/A	N/A	175159
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	4/25/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	4/26/2023	AOC-10-202304-86	N/A	15.30	N/A	N/A	175099
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	4/26/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	4/26/2023	AOC-10-202304-87	N/A	15.69	N/A	N/A	175113
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	4/25/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	4/26/2023	AOC-10-202304-85	N/A	16.46	N/A	N/A	175088
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	4/26/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	4/26/2023	AOC-10-202304-92	N/A	21.31	N/A	N/A	175160
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	4/26/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	4/26/2023	AOC-10-202304-88	N/A	21.52	N/A	N/A	175114
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	4/27/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	4/27/2023	AOC-10-202304-95	N/A	14.62	N/A	N/A	175200
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	4/27/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	4/27/2023	AOC-10-202304-98	N/A	15.40	N/A	N/A	175251
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	4/27/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	4/27/2023	AOC-10-202304-97	N/A	15.47	N/A	N/A	175246
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	4/26/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	4/27/2023	AOC-10-202304-93	N/A	16.74	N/A	N/A	175193
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	4/27/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	4/27/2023	AOC-10-202304-94	N/A	20.86	N/A	N/A	175199
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	4/27/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	4/27/2023	AOC-10-202304-96	N/A	21.56	N/A	N/A	175245
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	4/28/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	4/28/2023	AOC-10-202304-100	N/A	15.18	N/A	N/A	175331
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	4/28/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	4/28/2023	AOC-10-202304-99	N/A	22.32	N/A	N/A	175295
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	5/1/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/1/2023	AOC-10-202305-05	N/A	14.71	N/A	N/A	175454
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	5/1/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/1/2023	AOC-10-202305-08	N/A	15.30	N/A	N/A	175473
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	5/1/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/1/2023	AOC-10-202305-06	N/A	15.45	N/A	N/A	175457
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	5/1/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/1/2023	AOC-10-202305-04	N/A	15.89	N/A	N/A	175408
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	5/1/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/1/2023	AOC-10-202305-02	N/A	16.95	N/A	N/A	175393
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	5/1/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/1/2023	AOC-10-202305-01	N/A	16.97	N/A	N/A	175396
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	5/1/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/1/2023	AOC-10-202305-03	N/A	21.22	N/A	N/A	175406
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	5/1/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/1/2023	AOC-10-202305-07	N/A	21.51	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	5/2/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/2/2023	AOC-10-202305-13	N/A	14.99	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	5/2/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/2/2023	AOC-10-202305-12	N/A	15.39	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	5/2/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/2/2023	AOC-10-202305-11	N/A	15.73	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	5/2/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/2/2023	AOC-10-202305-09	N/A	18.54	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	5/2/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/2/2023	AOC-10-202305-10	N/A	21.17	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	5/2/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/2/2023	AOC-10-202305-15	N/A	21.64	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	5/3/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/3/2023	AOC-10-202305-18	N/A	14.82	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	5/3/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/3/2023	AOC-10-202305-16	N/A	14.93	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	5/3/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/3/2023	AOC-10-202305-19	N/A	15.14	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	5/3/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/3/2023	AOC-10-202305-14	N/A	15.38	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	5/3/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/3/2023	AOC-10-202305-20	N/A	20.34	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	5/3/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/3/2023	AOC-10-202305-17	N/A	21.93	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	5/4/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/4/2023	AOC-10-202305-21	N/A	14.49	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	5/4/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/4/2023	AOC-10-202305-23	N/A	14.70	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	5/4/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/4/2023	AOC-10-202305-24	N/A	15.21	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	5/4/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/4/2023	AOC-10-202305-22	N/A	21.59	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	5/4/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/4/2023	AOC-10-202305-25	N/A	21.87	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10TAA2	Truck																		

Table H-1. Nonhazardous Waste Tracking Log
Soil NTCRA Completion Report
Topock Compressor Station, Needles, California

Project #	Task Name	Site or Task Description	Container Type	Bin ID (Truck #)	Accumulation Start Date	Waste Profile	Transporter	Date Transported	Transporter DOT # and EPA ID	Disposal Facility	Disposal Facility State ID or EPA ID	Matrix	Waste Type (Haz, Nonhaz, TSCA)	Waste Code (RCRA then State)	Disposal Date (found on final manifest)	Manifest #	Incineration	Landfill (tons)	Recycle	Onsite	Comments/Notes
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	5/9/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/9/2023	AOC-10-202305-42	N/A	15.50	N/A	N/A	175947
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	5/8/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/9/2023	AOC-10-202305-40	N/A	15.61	N/A	N/A	175940
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	5/9/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/9/2023	AOC-10-202305-41	N/A	21.38	N/A	N/A	175946
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	5/9/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/9/2023	AOC-10-202305-44	N/A	21.86	N/A	N/A	175992
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	5/9/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/10/2023	AOC-10-202305-46	N/A	15.06	N/A	N/A	176028
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	5/10/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/10/2023	AOC-10-202305-49	N/A	20.30	N/A	N/A	176104
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	5/10/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/10/2023	AOC-10-202305-50	N/A	21.41	N/A	N/A	176097
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	5/10/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/10/2023	AOC-10-202305-47	N/A	21.66	N/A	N/A	176036
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	5/11/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/11/2023	AOC-10-202305-54	N/A	14.41	N/A	N/A	176164
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	5/10/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/11/2023	AOC-10-202305-48	N/A	15.14	N/A	N/A	176113
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	5/10/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/11/2023	AOC-10-202305-51	N/A	15.40	N/A	N/A	176115
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	5/11/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/11/2023	AOC-10-202305-55	N/A	20.14	N/A	N/A	176170
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	52	8/9/2022	51242215499	GWP	5/11/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/11/2023	AOC-10-202305-53	N/A	20.31	N/A	N/A	176140
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	5/11/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/11/2023	AOC-10-202305-52	N/A	21.40	N/A	N/A	176126
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	5/11/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/12/2023	AOC-10-202305-57	N/A	15.65	N/A	N/A	176186
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	5/15/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/15/2023	AOC-10-202305-59	N/A	15.22	N/A	N/A	176280
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	5/15/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/15/2023	AOC-10-202305-60	N/A	15.30	N/A	N/A	176335
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	5/15/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/15/2023	AOC-10-202305-62	N/A	15.43	N/A	N/A	176355
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	5/15/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/15/2023	AOC-10-202305-58	N/A	16.02	N/A	N/A	176276
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	5/15/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/15/2023	AOC-10-202305-61	N/A	21.19	N/A	N/A	176333
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	52	8/9/2022	51242215499	GWP	5/15/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/15/2023	AOC-10-202305-56	N/A	21.73	N/A	N/A	176374
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	5/16/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/16/2023	AOC-10-202305-68	N/A	14.55	N/A	N/A	176448
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	5/16/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/16/2023	AOC-10-202305-67	N/A	14.67	N/A	N/A	176428
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	5/16/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/16/2023	AOC-10-202305-64	N/A	14.81	N/A	N/A	176379
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	5/16/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/16/2023	AOC-10-202305-69	N/A	15.68	N/A	N/A	176454
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	5/16/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/16/2023	AOC-10-202305-65	N/A	15.82	N/A	N/A	176390
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	5/16/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/16/2023	AOC-10-202305-63	N/A	17.14	N/A	N/A	176374
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	5/16/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/16/2023	AOC-10-202305-70	N/A	21.13	N/A	N/A	176458
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	5/16/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/16/2023	AOC-10-202305-66	N/A	21.31	N/A	N/A	176391
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	5/17/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/17/2023	AOC-10-202305-75	N/A	14.97	N/A	N/A	176530
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	5/16/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/17/2023	AOC-10-202305-71	N/A	15.10	N/A	N/A	176481
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	5/16/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/17/2023	AOC-10-202305-72	N/A	15.31	N/A	N/A	176482
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	5/17/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/17/2023	AOC-10-202305-76	N/A	15.57	N/A	N/A	176539
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	5/17/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/17/2023	AOC-10-202305-74	N/A	15.86	N/A	N/A	176497
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	5/17/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/17/2023	AOC-10-202305-73	N/A	21.55	N/A	N/A	176495
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	5/18/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/18/2023	AOC-10-202305-83	N/A	14.87	N/A	N/A	176639
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	5/18/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/18/2023	AOC-10-202305-81	N/A	15.32	N/A	N/A	176623
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	5/18/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/18/2023	AOC-10-202305-82	N/A	15.59	N/A	N/A	176637
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	5/18/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/18/2023	AOC-10-202305-78	N/A	16.16	N/A	N/A	176583
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	5/17/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/18/2023	AOC-10-202305-79	N/A	16.29	N/A	N/A	176574
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	5/17/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/18/2023	AOC-10-202305-77	N/A	16.54	N/A	N/A	176568
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	5/18/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/18/2023	AOC-10-202305-84	N/A	21.09	N/A	N/A	176640
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	5/18/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/18/2023	AOC-10-202305-80	N/A	21.35	N/A	N/A	176587
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	5/18/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/19/2023	AOC-10-202305-86	N/A	15.76	N/A	N/A	176667
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	5/19/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/19/2023	AOC-10-202305-88	N/A	15.77	N/A	N/A	176683
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	5/18/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/19/2023	AOC-10-202305-85	N/A	16.16	N/A	N/A	176666
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	5/19/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/19/2023	AOC-10-202305-87	N/A	20.71	N/A	N/A	176678
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	5/19/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/19/2023	AOC-10-202305-89	N/A	21.15	N/A	N/A	176724
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	5/22/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/22/2023	AOC-10-202305-95	N/A	14.95	N/A	N/A	176791
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	5/22/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/22/2023	AOC-10-202305-92	N/A	15.21	N/A	N/A	176748
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	5/22/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/22/2023	AOC-10-202305-93	N/A	15.30	N/A	N/A	176773
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	5/22/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/22/2023	AOC-10-202305-91	N/A	15.52	N/A	N/A	176743
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	5/22/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/22/2023	AOC-10-202305-94	N/A	15.74	N/A	N/A	176790
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	5/22/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/22/2023	AOC-10-202305-90	N/A	20.35	N/A	N/A	176741
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	5/23/2023	N/A	La Paz											

Table H-1. Nonhazardous Waste Tracking Log
Soil NTCRA Completion Report
Topock Compressor Station, Needles, California

Project #	Task Name	Site or Task Description	Container Type	Bin ID (Truck #)	Accumulation Start Date	Waste Profile	Transporter	Date Transported	Transporter DOT # and EPA ID	Disposal Facility	Disposal Facility State ID or EPA ID	Matrix	Waste Type (Haz, Nonhaz, TSCA)	Waste Code (RCRA then State)	Disposal Facility Date (found on final manifest)	Manifest #	Incineration	Landfill (tons)	Recycle	Onsite	Comments/Notes
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	5/26/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/26/2023	AOC-10-202305-113	N/A	16.02	N/A	N/A	177067
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	5/31/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/31/2023	AOC-10-202305-119	N/A	13.15	N/A	N/A	177263
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	5/31/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/31/2023	AOC-10-202305-118	N/A	13.37	N/A	N/A	177262
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	5/31/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/31/2023	AOC-10-202305-116	N/A	14.07	N/A	N/A	177233
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	5/31/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/31/2023	AOC-10-202305-115	N/A	14.51	N/A	N/A	177229
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	5/31/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/31/2023	AOC-10-202305-120	N/A	15.16	N/A	N/A	177267
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	5/31/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/31/2023	AOC-10-202305-121	N/A	17.94	N/A	N/A	177271
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	5/31/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/31/2023	AOC-10-202305-117	N/A	19.37	N/A	N/A	177238
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	6/1/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/1/2023	AOC-10-202306-04	N/A	14.54	N/A	N/A	177312
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	6/1/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/1/2023	AOC-10-202306-03	N/A	15.23	N/A	N/A	177306
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	6/1/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/1/2023	AOC-10-202306-06	N/A	15.32	N/A	N/A	177364
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	6/1/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/1/2023	AOC-10-202306-02	N/A	15.46	N/A	N/A	177303
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	6/1/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/1/2023	AOC-10-202306-01	N/A	16.33	N/A	N/A	177305
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	6/1/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/1/2023	AOC-10-202306-05	N/A	20.52	N/A	N/A	177315
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	6/1/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/1/2023	AOC-10-202306-08	N/A	21.28	N/A	N/A	177368
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	6/1/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/2/2023	AOC-10-202306-10	N/A	14.08	N/A	N/A	177398
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	6/1/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/2/2023	AOC-10-202306-07	N/A	15.05	N/A	N/A	177396
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	6/2/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/2/2023	AOC-10-202306-13	N/A	15.43	N/A	N/A	177465
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	6/1/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/2/2023	AOC-10-202306-09	N/A	15.88	N/A	N/A	177397
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	6/2/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/2/2023	AOC-10-202306-12	N/A	19.75	N/A	N/A	177460
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	6/2/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/2/2023	AOC-10-202306-11	N/A	21.47	N/A	N/A	177404
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	6/5/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/5/2023	AOC-10-202306-14	N/A	15.08	N/A	N/A	177525
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	6/5/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/5/2023	AOC-10-202306-15	N/A	15.44	N/A	N/A	177562
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	6/5/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/6/2023	AOC-10-202306-16	N/A	14.96	N/A	N/A	177612
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	6/6/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/6/2023	AOC-10-202306-18	N/A	14.97	N/A	N/A	177685
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	6/5/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/6/2023	AOC-10-202306-17	N/A	15.01	N/A	N/A	177611
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	6/6/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/6/2023	AOC-10-202306-19	N/A	15.19	N/A	N/A	177688
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	6/7/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/7/2023	AOC-10-202306-21	N/A	14.60	N/A	N/A	177768
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	6/7/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/7/2023	AOC-10-202306-22	N/A	15.13	N/A	N/A	177783
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	6/7/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/7/2023	AOC-10-202306-24	N/A	15.39	N/A	N/A	177787
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	6/7/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/7/2023	AOC-10-202306-23	N/A	16.02	N/A	N/A	177727
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	6/6/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/7/2023	AOC-10-202306-20	N/A	16.83	N/A	N/A	177724
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	6/8/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/8/2023	AOC-10-202306-27	N/A	15.44	N/A	N/A	177823
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	6/8/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/8/2023	AOC-10-202306-28	N/A	15.48	N/A	N/A	177875
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	6/8/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/8/2023	AOC-10-202306-29	N/A	15.49	N/A	N/A	177877
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	6/8/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/8/2023	AOC-10-202306-26	N/A	15.64	N/A	N/A	177819
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	6/8/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/8/2023	AOC-10-202306-31	N/A	15.76	N/A	N/A	177882
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	6/8/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/8/2023	AOC-10-202306-25	N/A	15.77	N/A	N/A	177820
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	6/8/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/8/2023	AOC-10-202306-30	N/A	15.83	N/A	N/A	177881
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	6/9/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/9/2023	AOC-10-202306-35	N/A	15.23	N/A	N/A	177936
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	6/9/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/9/2023	AOC-10-202306-36	N/A	15.45	N/A	N/A	177962
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	6/9/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/9/2023	AOC-10-202306-33	N/A	15.83	N/A	N/A	177917
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	6/9/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/9/2023	AOC-10-202306-34	N/A	16.19	N/A	N/A	177934
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	6/9/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/9/2023	AOC-10-202306-32	N/A	16.48	N/A	N/A	177909
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	6/12/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/12/2023	AOC-10-202306-37	N/A	13.20	N/A	N/A	177990
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	6/12/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/12/2023	AOC-10-202306-43	N/A	15.13	N/A	N/A	178042
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	6/12/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/12/2023	AOC-10-202306-41	N/A	15.20	N/A	N/A	178035
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	6/12/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/12/2023	AOC-10-202306-40	N/A	15.55	N/A	N/A	177995
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	6/12/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/12/2023	AOC-10-202306-38	N/A	15.57	N/A	N/A	177996
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	6/12/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/12/2023	AOC-10-202306-42	N/A	15.58	N/A	N/A	178040
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	6/12/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/12/2023	AOC-10-202306-44	N/A	15.65	N/A	N/A	178041
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	6/12/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/12/2023	AOC-10-202306-39	N/A	15.93	N/A	N/A	177997
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	6/13/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/13/2023	AOC-10-202306-49	N/A	14.60	N/A	N/A	178127
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	6/13/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/13/2023	AOC-10-202306-47	N/A	14.86	N/A	N/A	178104
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	6/13/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/13						

Table H-1. Nonhazardous Waste Tracking Log
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

Project #	Task Name	Site or Task Description	Container Type	Bin ID (Truck #)	Accumulation Start Date	Waste Profile	Transporter	Date Transported	Transporter DOT # and EPA ID	Disposal Facility	Disposal Facility State ID or EPA ID	Matrix	Waste Type (Haz, Nonhaz, TSCA)	Waste Code (RCRA then State)	Disposal Date (found on final manifest)	Manifest #	Incineration	Landfill (tons)	Recycle	Onsite	Comments/Notes
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	6/15/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/15/2023	AOC-10-202306-62	N/A	15.81	N/A	N/A	178257
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	6/15/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/15/2023	AOC-10-202306-65	N/A	15.98	N/A	N/A	178317
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	6/15/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/15/2023	AOC-10-202306-63	N/A	21.16	N/A	N/A	178261
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	6/15/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/15/2023	AOC-10-202306-67	N/A	21.38	N/A	N/A	178322
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	6/16/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/16/2023	AOC-10-202306-68	N/A	15.01	N/A	N/A	178345
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	6/16/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/16/2023	AOC-10-202306-73	N/A	15.50	N/A	N/A	178392
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	6/16/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/16/2023	AOC-10-202306-70	N/A	15.58	N/A	N/A	178348
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	6/16/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/16/2023	AOC-10-202306-71	N/A	15.64	N/A	N/A	178351
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	6/16/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/16/2023	AOC-10-202306-72	N/A	16.02	N/A	N/A	178390
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	6/16/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/16/2023	AOC-10-202306-69	N/A	21.38	N/A	N/A	178346
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	6/19/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/19/2023	AOC-10-202306-76	N/A	14.65	N/A	N/A	178444
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	6/19/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/19/2023	AOC-10-202306-75	N/A	15.77	N/A	N/A	178434
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	6/19/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/19/2023	AOC-10-202306-77	N/A	17.16	N/A	N/A	178454
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	6/19/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/19/2023	AOC-10-202306-78	N/A	18.86	N/A	N/A	178460
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	6/19/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/19/2023	AOC-10-202306-74	N/A	20.94	N/A	N/A	178433
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	6/19/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/19/2023	AOC-10-202306-80	N/A	23.17	N/A	N/A	178476
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	6/20/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/20/2023	AOC-10-202306-84	N/A	14.41	N/A	N/A	178554
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	6/20/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/20/2023	AOC-10-202306-83	N/A	14.54	N/A	N/A	178507
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	6/19/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/20/2023	AOC-10-202306-79	N/A	16.79	N/A	N/A	178493
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	6/19/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/20/2023	AOC-10-202306-82	N/A	17.17	N/A	N/A	178494
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	6/20/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/20/2023	AOC-10-202306-81	N/A	19.77	N/A	N/A	178581
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	6/20/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/21/2023	AOC-10-202306-85	N/A	14.27	N/A	N/A	178599
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	6/20/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/21/2023	AOC-10-202306-86	N/A	17.67	N/A	N/A	178600
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	6/21/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/21/2023	AOC-10-202306-87	N/A	20.74	N/A	N/A	178673
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	6/21/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/21/2023	AOC-10-202306-88	N/A	20.84	N/A	N/A	178614
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	6/21/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/22/2023	AOC-10-202306-90	N/A	9.97	N/A	N/A	178704
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	6/21/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/22/2023	AOC-10-202306-89	N/A	10.30	N/A	N/A	178705
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	6/22/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/22/2023	AOC-10-202306-91	N/A	20.27	N/A	N/A	178719
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	6/22/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/22/2023	AOC-10-202306-92	N/A	21.82	N/A	N/A	178780
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	6/22/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/23/2023	AOC-10-202306-93	N/A	15.04	N/A	N/A	178809
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	6/22/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/23/2023	AOC-10-202306-94	N/A	15.66	N/A	N/A	178811
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	6/22/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/23/2023	AOC-10-202306-95	N/A	18.09	N/A	N/A	178808
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	6/23/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/23/2023	AOC-10-202306-96	N/A	20.96	N/A	N/A	178828
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	6/23/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/26/2023	AOC-10-202306-97	N/A	14.20	N/A	N/A	178902
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	6/26/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/26/2023	AOC-10-202306-98	N/A	14.42	N/A	N/A	178919
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	6/26/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/26/2023	AOC-10-202306-102	N/A	15.59	N/A	N/A	178988
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	6/26/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/26/2023	AOC-10-202306-100	N/A	19.75	N/A	N/A	178987
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	6/26/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/26/2023	AOC-10-202306-99	N/A	21.40	N/A	N/A	178917
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	6/26/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/26/2023	AOC-10-202306-101	N/A	24.86	N/A	N/A	178980
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	6/27/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/27/2023	AOC-10-202306-107	N/A	15.30	N/A	N/A	179094
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	6/27/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/27/2023	AOC-10-202306-105	N/A	15.74	N/A	N/A	179076
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	6/27/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/27/2023	AOC-10-202306-108	N/A	16.03	N/A	N/A	179092
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	6/27/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/27/2023	AOC-10-202306-103	N/A	16.77	N/A	N/A	179015
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	6/27/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/27/2023	AOC-10-202306-106	N/A	21.56	N/A	N/A	179090
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	6/27/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/27/2023	AOC-10-202306-104	N/A	21.66	N/A	N/A	179038
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	6/28/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/28/2023	AOC-10-202306-112	N/A	14.73	N/A	N/A	179207
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	6/27/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/28/2023	AOC-10-202306-109	N/A	15.40	N/A	N/A	179120
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	6/28/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/28/2023	AOC-10-202306-113	N/A	15.63	N/A	N/A	179211
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	6/28/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/28/2023	AOC-10-202306-111	N/A	21.58	N/A	N/A	179197
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	6/28/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/28/2023	AOC-10-202306-110	N/A	21.74	N/A	N/A	179134
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	6/28/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/29/2023	AOC-10-202306-114	N/A	15.34	N/A	N/A	179230
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	6/29/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/29/2023	AOC-10-202306-117	N/A	19.95	N/A	N/A	179318
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	6/29/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/29/2023	AOC-10-202306-115	N/A	21.12	N/A	N/A	179250
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	6/30/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	6/30/2023	AOC-10-202306-120	N/A	14.63	N/A	N/A	179404
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP														

Table H-1. Nonhazardous Waste Tracking Log

Soil NTCRA Completion Report

Topock Compressor Station, Needles, California

Project #	Task Name	Site or Task Description	Container Type	Bin ID (Truck #)	Accumulation Start Date	Waste Profile	Transporter	Date Transported	Transporter DOT # and EPA ID	Disposal Facility	Disposal Facility State ID or EPA ID	Matrix	Waste Type (Haz, Nonhaz, TSCA)	Waste Code (RCRA then State)	Disposal Date (found on final manifest)	Manifest #	Incineration	Landfill (tons)	Recycle	Onsite	Comments/Notes
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	7/10/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/10/2023	AOC-10-202307-17	N/A	21.43	N/A	N/A	179862
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	7/10/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/10/2023	AOC-10-202307-15	N/A	21.81	N/A	N/A	179820
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	7/10/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/11/2023	AOC-10-202307-19	N/A	13.27	N/A	N/A	179892
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	7/11/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/11/2023	AOC-10-202307-21	N/A	13.50	N/A	N/A	179950
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	7/11/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/11/2023	AOC-10-202307-22	N/A	15.00	N/A	N/A	179954
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	7/10/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/11/2023	AOC-10-202307-18	N/A	15.36	N/A	N/A	179889
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	7/11/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/11/2023	AOC-10-202307-23	N/A	16.52	N/A	N/A	179966
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	7/11/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/11/2023	AOC-10-202307-20	N/A	17.75	N/A	N/A	179920
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	7/12/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/12/2023	AOC-10-202307-28	N/A	15.41	N/A	N/A	180080
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	7/12/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/12/2023	AOC-10-202307-27	N/A	15.65	N/A	N/A	180038
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	7/12/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/12/2023	AOC-10-202307-24	N/A	16.16	N/A	N/A	180010
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	7/12/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/12/2023	AOC-10-202307-26	N/A	16.29	N/A	N/A	180029
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	7/12/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/12/2023	AOC-10-202307-25	N/A	23.19	N/A	N/A	180018
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	7/13/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/13/2023	AOC-10-202307-31	N/A	12.84	N/A	N/A	180114
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	7/13/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/13/2023	AOC-10-202307-36	N/A	12.98	N/A	N/A	180182
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	7/13/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/13/2023	AOC-10-202307-33	N/A	15.19	N/A	N/A	180153
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	7/12/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/13/2023	AOC-10-202307-30	N/A	15.79	N/A	N/A	180110
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	7/13/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/13/2023	AOC-10-202307-35	N/A	16.69	N/A	N/A	180178
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	7/13/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/13/2023	AOC-10-202307-37	N/A	21.17	N/A	N/A	180179
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	7/13/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/13/2023	AOC-10-202307-32	N/A	21.37	N/A	N/A	180117
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	7/13/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/13/2023	AOC-10-202307-34	N/A	24.13	N/A	N/A	180172
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	7/12/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/13/2023	AOC-10-202307-29	N/A	24.65	N/A	N/A	180102
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	7/14/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/14/2023	AOC-10-202307-38	N/A	12.96	N/A	N/A	180211
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	7/14/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/14/2023	AOC-10-202307-41	N/A	15.27	N/A	N/A	180232
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	7/14/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/14/2023	AOC-10-202307-44	N/A	15.49	N/A	N/A	180283
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	7/14/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/14/2023	AOC-10-202307-45	N/A	15.49	N/A	N/A	180320
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	7/14/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/14/2023	AOC-10-202307-42	N/A	16.97	N/A	N/A	180254
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	7/14/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/14/2023	AOC-10-202307-39	N/A	21.34	N/A	N/A	180218
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	7/14/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/14/2023	AOC-10-202307-43	N/A	24.68	N/A	N/A	180280
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	7/14/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/14/2023	AOC-10-202307-40	N/A	24.75	N/A	N/A	180223
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	7/17/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/17/2023	AOC-10-202307-46	N/A	18.91	N/A	N/A	180326
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	7/17/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/17/2023	AOC-10-202307-48	N/A	21.17	N/A	N/A	180375
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	7/17/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/17/2023	AOC-10-202307-47	N/A	24.25	N/A	N/A	180343
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	7/17/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/17/2023	AOC-10-202307-49	N/A	24.66	N/A	N/A	180389
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	7/17/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/18/2023	AOC-10-202307-51	N/A	14.66	N/A	N/A	180403
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	7/18/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/18/2023	AOC-10-202307-57	N/A	14.96	N/A	N/A	180494
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	7/17/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/18/2023	AOC-10-202307-50	N/A	15.53	N/A	N/A	180404
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	7/18/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/18/2023	AOC-10-202307-54	N/A	15.56	N/A	N/A	180465
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	7/18/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/18/2023	AOC-10-202307-55	N/A	19.07	N/A	N/A	180471
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	7/18/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/18/2023	AOC-10-202307-52	N/A	21.06	N/A	N/A	180411
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	7/18/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/18/2023	AOC-10-202307-56	N/A	23.00	N/A	N/A	180472
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	7/18/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/18/2023	AOC-10-202307-53	N/A	23.75	N/A	N/A	180413
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	7/19/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/19/2023	AOC-10-202307-60	N/A	15.39	N/A	N/A	180528
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	7/19/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/19/2023	AOC-10-202307-61	N/A	15.71	N/A	N/A	180564
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	7/19/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/19/2023	AOC-10-202307-58	N/A	21.69	N/A	N/A	180501
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	7/19/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/19/2023	AOC-10-202307-62	N/A	21.88	N/A	N/A	180565
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	7/19/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/19/2023	AOC-10-202307-59	N/A	24.72	N/A	N/A	180499
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	7/19/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/19/2023	AOC-10-202307-63	N/A	25.05	N/A	N/A	180569
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	7/20/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/20/2023	AOC-10-202307-67	N/A	13.85	N/A	N/A	180617
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	7/20/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/20/2023	AOC-10-202307-69	N/A	15.05	N/A	N/A	180627
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	7/19/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/20/2023	AOC-10-202307-64	N/A	15.09	N/A	N/A	180592
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	7/20/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/20/2023	AOC-10-202307-71	N/A	15.21	N/A	N/A	180640
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	7/20/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/20/2023	AOC-10-202307-66	N/A	15.48	N/A	N/A	180598
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	7/19/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/20/2023	AOC-10-202307-65	N/A	15.84	N/A	N/A	180593
D31084AZ	Soil NTCRA	AOC10TAA2	Tr																		

Table H-1. Nonhazardous Waste Tracking Log
Soil NTCRA Completion Report
Topock Compressor Station, Needles, California

Project #	Task Name	Site or Task Description	Container Type	Bin ID (Truck #)	Accumulation Start Date	Waste Profile	Transporter	Date Transported	Transporter DOT # and EPA ID	Disposal Facility	Disposal Facility State ID or EPA ID	Matrix	Waste Type (Haz, Nonhaz, TSCA)	Waste Code (RCRA then State)	Disposal Facility Date (found on manifest)	Manifest #	Incineration	Landfill (tons)	Recycle	Onsite	Comments/Notes
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	7/25/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/25/2023	AOC-10-202307-88	N/A	16.42	N/A	N/A	180886
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	7/24/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/25/2023	AOC-10-202307-84	N/A	17.08	N/A	N/A	180830
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	7/25/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/25/2023	AOC-10-202307-89	N/A	17.08	N/A	N/A	180883
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	7/25/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/25/2023	AOC-10-202307-86	N/A	23.96	N/A	N/A	180836
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	7/25/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/25/2023	AOC-10-202307-91	N/A	24.85	N/A	N/A	180893
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	7/26/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/26/2023	AOC-10-202307-98	N/A	14.61	N/A	N/A	180978
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	7/26/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/26/2023	AOC-10-202307-100	N/A	15.45	N/A	N/A	180982
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	7/26/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/26/2023	AOC-10-202307-93	N/A	15.47	N/A	N/A	180928
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	7/26/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/26/2023	AOC-10-202307-97	N/A	15.52	N/A	N/A	180974
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	7/26/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/26/2023	AOC-10-202307-95	N/A	16.24	N/A	N/A	180932
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	7/26/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/26/2023	AOC-10-202307-96	N/A	17.76	N/A	N/A	180952
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	7/26/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/26/2023	AOC-10-202307-99	N/A	24.52	N/A	N/A	180981
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	7/26/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/26/2023	AOC-10-202307-94	N/A	30.61	N/A	N/A	180934
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	77	8/9/2022	51242215499	GWP	7/27/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/27/2023	AOC-10-202307-102	N/A	12.99	N/A	N/A	181027
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	7/27/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/27/2023	AOC-10-202307-110	N/A	15.37	N/A	N/A	181053
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	7/27/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/27/2023	AOC-10-202307-101	N/A	15.38	N/A	N/A	181001
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	7/27/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/27/2023	AOC-10-202307-104	N/A	15.41	N/A	N/A	181012
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	7/27/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/27/2023	AOC-10-202307-111	N/A	15.43	N/A	N/A	181057
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	7/27/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/27/2023	AOC-10-202307-106	N/A	16.35	N/A	N/A	181024
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	7/27/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/27/2023	AOC-10-202307-108	N/A	20.70	N/A	N/A	181048
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	7/27/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/27/2023	AOC-10-202307-103	N/A	21.21	N/A	N/A	181005
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	7/27/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/27/2023	AOC-10-202307-105	N/A	24.55	N/A	N/A	181008
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	7/27/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/27/2023	AOC-10-202307-109	N/A	24.57	N/A	N/A	181050
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	7/28/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/28/2023	AOC-10-202307-107	N/A	15.27	N/A	N/A	181125
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	7/28/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/28/2023	AOC-10-202307-113	N/A	15.83	N/A	N/A	181080
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	7/28/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/28/2023	AOC-10-202307-114	N/A	18.75	N/A	N/A	181092
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	7/28/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/28/2023	AOC-10-202307-112	N/A	24.26	N/A	N/A	181083
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	7/31/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/31/2023	AOC-10-202307-119	N/A	15.45	N/A	N/A	181194
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	7/31/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/31/2023	AOC-10-202307-117	N/A	15.63	N/A	N/A	181157
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	7/31/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/31/2023	AOC-10-202308-01	N/A	17.38	N/A	N/A	181198
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	7/31/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/31/2023	AOC-10-202307-118	N/A	20.60	N/A	N/A	181189
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	7/31/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/31/2023	AOC-10-202307-115	N/A	21.02	N/A	N/A	181151
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	7/31/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/31/2023	AOC-10-202307-120	N/A	24.01	N/A	N/A	181193
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	7/31/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	7/31/2023	AOC-10-202307-116	N/A	24.42	N/A	N/A	181155
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	8/1/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/1/2023	AOC-10-202308-07	N/A	14.95	N/A	N/A	181275
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	8/1/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/1/2023	AOC-10-202308-10	N/A	15.35	N/A	N/A	181289
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	8/1/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/1/2023	AOC-10-202308-04	N/A	15.40	N/A	N/A	181236
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	8/1/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/1/2023	AOC-10-202308-06	N/A	15.43	N/A	N/A	181241
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	8/1/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/1/2023	AOC-10-202308-11	N/A	15.59	N/A	N/A	181292
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	7/31/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/1/2023	AOC-10-202308-02	N/A	15.93	N/A	N/A	181219
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	8/1/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/1/2023	AOC-10-202308-08	N/A	20.75	N/A	N/A	181285
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	8/1/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/1/2023	AOC-10-202308-05	N/A	21.35	N/A	N/A	181230
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	8/1/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/1/2023	AOC-10-202308-09	N/A	23.77	N/A	N/A	181286
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	8/1/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/1/2023	AOC-10-202308-03	N/A	24.27	N/A	N/A	181232
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	8/2/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/2/2023	AOC-10-202308-17	N/A	15.17	N/A	N/A	181378
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	8/2/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/2/2023	AOC-10-202308-12	N/A	15.28	N/A	N/A	181319
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	8/2/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/2/2023	AOC-10-202308-14	N/A	15.38	N/A	N/A	181326
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	8/2/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/2/2023	AOC-10-202308-16	N/A	15.70	N/A	N/A	181352
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	8/2/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/2/2023	AOC-10-202308-18	N/A	20.04	N/A	N/A	181381
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	8/2/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/2/2023	AOC-10-202308-13	N/A	20.66	N/A	N/A	181322
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	8/2/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/2/2023	AOC-10-202308-15	N/A	25.02	N/A	N/A	181329
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	8/3/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/3/2023	AOC-10-202308-22	N/A	14.70	N/A	N/A	181448
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	8/2/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/3/2023	AOC-10-202308-19	N/A	14.94	N/A	N/A	181412
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	8/3/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/3/2023	AOC-10-202308-24	N/A	15.33	N/A	N/A	181465
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	8/3/2023	N/A	La Paz</											

Table H-1. Nonhazardous Waste Tracking Log
Soil NTCRA Completion Report
Topock Compressor Station, Needles, California

Project #	Task Name	Site or Task Description	Container Type	Bin ID (Truck #)	Accumulation Start Date	Waste Profile	Transporter	Date Transported	Transporter DOT # and EPA ID	Disposal Facility	Disposal Facility State ID or EPA ID	Matrix	Waste Type (Haz, Nonhaz, TSCA)	Waste Code (RCRA then State)	Disposal Facility Date (found on final manifest)	Manifest #	Incineration	Landfill (tons)	Recycle	Onsite	Comments/Notes
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	8/8/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/8/2023	AOC-10-202308-34	N/A	24.87	N/A	N/A	181714
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	8/9/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/9/2023	AOC-10-202308-45	N/A	14.54	N/A	N/A	181883
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	8/9/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/9/2023	AOC-10-202308-39	N/A	14.93	N/A	N/A	181818
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	8/9/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/9/2023	AOC-10-202308-41	N/A	15.08	N/A	N/A	181822
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	8/9/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/9/2023	AOC-10-202308-43	N/A	15.10	N/A	N/A	181872
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	8/9/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/9/2023	AOC-10-202308-42	N/A	16.90	N/A	N/A	181854
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	8/9/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/9/2023	AOC-10-202308-40	N/A	23.57	N/A	N/A	181820
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	8/9/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/9/2023	AOC-10-202308-44	N/A	23.96	N/A	N/A	181879
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	8/10/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/10/2023	AOC-10-202308-54	N/A	14.71	N/A	N/A	181971
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	8/10/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/10/2023	AOC-10-202308-50	N/A	14.97	N/A	N/A	181917
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	8/10/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/10/2023	AOC-10-202308-51	N/A	15.07	N/A	N/A	181961
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	8/10/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/10/2023	AOC-10-202308-47	N/A	15.21	N/A	N/A	181905
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	8/9/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/10/2023	AOC-10-202308-46	N/A	15.50	N/A	N/A	181898
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	8/10/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/10/2023	AOC-10-202308-52	N/A	20.21	N/A	N/A	181967
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	8/10/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/10/2023	AOC-10-202308-48	N/A	20.86	N/A	N/A	181914
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	8/10/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/10/2023	AOC-10-202308-53	N/A	23.47	N/A	N/A	181965
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	8/10/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/10/2023	AOC-10-202308-49	N/A	23.80	N/A	N/A	181911
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	8/10/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/11/2023	AOC-10-202308-55	N/A	14.79	N/A	N/A	181986
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	8/11/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/11/2023	AOC-10-202308-60	N/A	15.00	N/A	N/A	182056
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	8/11/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/11/2023	AOC-10-202308-57	N/A	15.15	N/A	N/A	182002
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	8/11/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/11/2023	AOC-10-202308-56	N/A	20.52	N/A	N/A	182000
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	8/11/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/11/2023	AOC-10-202308-58	N/A	23.23	N/A	N/A	182001
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	8/11/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/11/2023	AOC-10-202308-59	N/A	24.03	N/A	N/A	182054
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	8/14/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/14/2023	AOC-10-202308-66	N/A	14.91	N/A	N/A	182149
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	8/14/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/14/2023	AOC-10-202308-63	N/A	15.68	N/A	N/A	182104
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	8/14/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/14/2023	AOC-10-202308-65	N/A	20.79	N/A	N/A	182138
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	8/14/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/14/2023	AOC-10-202308-62	N/A	21.37	N/A	N/A	182089
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	8/14/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/14/2023	AOC-10-202308-64	N/A	23.41	N/A	N/A	182139
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	8/14/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/14/2023	AOC-10-202308-61	N/A	23.95	N/A	N/A	182087
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	8/15/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/15/2023	AOC-10-202308-69	N/A	14.80	N/A	N/A	182206
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	8/15/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/15/2023	AOC-10-202308-70	N/A	20.72	N/A	N/A	182220
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	8/15/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/15/2023	AOC-10-202308-67	N/A	20.90	N/A	N/A	182180
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	8/15/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/15/2023	AOC-10-202308-71	N/A	23.96	N/A	N/A	182221
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	8/15/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/15/2023	AOC-10-202308-68	N/A	23.97	N/A	N/A	182181
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	8/16/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/16/2023	AOC-10-202308-78	N/A	14.96	N/A	N/A	182317
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	8/16/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/16/2023	AOC-10-202308-75	N/A	15.32	N/A	N/A	182274
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	8/16/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/16/2023	AOC-10-202308-74	N/A	15.36	N/A	N/A	182267
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	8/16/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/16/2023	AOC-10-202308-79	N/A	16.18	N/A	N/A	182329
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	8/16/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/16/2023	AOC-10-202308-73	N/A	20.82	N/A	N/A	182255
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	8/16/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/16/2023	AOC-10-202308-76	N/A	20.97	N/A	N/A	182304
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	8/16/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/16/2023	AOC-10-202308-77	N/A	23.67	N/A	N/A	182303
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	8/16/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/16/2023	AOC-10-202308-72	N/A	23.73	N/A	N/A	182253
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	8/17/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/17/2023	AOC-10-202308-83	N/A	14.98	N/A	N/A	182363
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	80	8/9/2022	51242215499	GWP	8/16/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/17/2023	AOC-10-202308-80	N/A	15.48	N/A	N/A	182343
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	8/17/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/17/2023	AOC-10-202308-84	N/A	15.54	N/A	N/A	182375
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	8/17/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/17/2023	AOC-10-202308-87	N/A	15.85	N/A	N/A	182413
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	8/17/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/17/2023	AOC-10-202308-85	N/A	20.26	N/A	N/A	182406
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	8/17/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/17/2023	AOC-10-202308-81	N/A	20.64	N/A	N/A	182357
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	8/17/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/17/2023	AOC-10-202308-86	N/A	23.97	N/A	N/A	182407
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	57	8/9/2022	51242215499	GWP	8/17/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/17/2023	AOC-10-202308-82	N/A	23.99	N/A	N/A	182365
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	8/18/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/18/2023	AOC-10-202308-94	N/A	13.13	N/A	N/A	182486
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	8/18/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/18/2023	AOC-10-202308-95	N/A	14.92	N/A	N/A	182487
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	79	8/9/2022	51242215499	GWP	8/18/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/18/2023	AOC-10-202308-90	N/A	15.25	N/A	N/A	182443
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	78	8/9/2022	51242215499	GWP	8/18/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	8/18/2023	AOC-10-202308-91	N/A	16.75	N/A	N/A	182455
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/9/2022	51242215499	GWP	8/18/2023	N/A												

Table H-1. Nonhazardous Waste Tracking Log
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

Project #	Task Name	Site or Task Description	Container Type	Bin ID (Truck #)	Accumulation Start Date	Waste Profile	Transporter	Date Transported	Transporter DOT # and EPA ID	Disposal Facility	Disposal Facility State ID or EPA ID	Matrix	Waste Type (Haz, Nonhaz, TSCA)	Waste Code (RCRA then State)	Disposal Facility Date (found on final manifest)	Manifest #	Incineration	Landfill (tons)	Recycle	Onsite	Comments/Notes
D31084AZ	Soil NTCRA	AOC10TAA2	Truck	53	8/23/2023	51242215499	GWP	9/29/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	9/29/2023	AOC-10-202309-09	N/A	20.33	N/A	N/A	184817
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	58	8/23/2023	51242215499	GWP	10/2/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/2/2023	AOC-10-202310-02	N/A	18.12	N/A	N/A	184981
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	53	8/23/2023	51242215499	GWP	10/2/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/2/2023	AOC-10-202310-01	N/A	20.24	N/A	N/A	184943
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	58	8/23/2023	51242215499	GWP	10/3/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/3/2023	AOC-10-202310-04	N/A	18.10	N/A	N/A	185050
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	53	8/23/2023	51242215499	GWP	10/2/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/3/2023	AOC-10-202310-03	N/A	20.17	N/A	N/A	184997
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	53	8/23/2023	51242215499	GWP	10/3/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/3/2023	AOC-10-202310-05	N/A	20.18	N/A	N/A	185086
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	58	8/23/2023	51242215499	GWP	10/4/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/4/2023	AOC-10-202310-07	N/A	17.65	N/A	N/A	185187
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	58	8/23/2023	51242215499	GWP	10/3/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/4/2023	AOC-10-202310-06	N/A	17.81	N/A	N/A	185099
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	58	8/23/2023	51242215499	GWP	10/5/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/5/2023	AOC-10-202310-08	N/A	17.29	N/A	N/A	185283
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	77	8/23/2023	51242215499	GWP	10/6/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/6/2023	AOC-10-202310-13	N/A	12.70	N/A	N/A	185365
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	79	8/23/2023	51242215499	GWP	10/6/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/6/2023	AOC-10-202310-10	N/A	13.53	N/A	N/A	185368
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	78	8/23/2023	51242215499	GWP	10/6/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/6/2023	AOC-10-202310-11	N/A	13.59	N/A	N/A	185366
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	58	8/23/2023	51242215499	GWP	10/6/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/6/2023	AOC-10-202310-14	N/A	16.95	N/A	N/A	185369
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	57	8/23/2023	51242215499	GWP	10/6/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/6/2023	AOC-10-202310-12	N/A	18.23	N/A	N/A	185363
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	57	8/23/2023	51242215499	GWP	10/5/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/6/2023	AOC-10-202310-09	N/A	20.00	N/A	N/A	185313
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	79	8/23/2023	51242215499	GWP	10/7/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/7/2023	AOC-10-202310-18	N/A	12.70	N/A	N/A	185386
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	77	8/23/2023	51242215499	GWP	10/7/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/7/2023	AOC-10-202310-17	N/A	12.80	N/A	N/A	185385
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	78	8/23/2023	51242215499	GWP	10/7/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/7/2023	AOC-10-202310-16	N/A	14.89	N/A	N/A	185384
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	58	8/23/2023	51242215499	GWP	10/7/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/7/2023	AOC-10-202310-15	N/A	16.12	N/A	N/A	185381
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	57	8/23/2023	51242215499	GWP	10/7/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/7/2023	AOC-10-202310-19	N/A	17.95	N/A	N/A	185380
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	58	8/23/2023	51242215499	GWP	10/9/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/9/2023	AOC-10-202310-21	N/A	18.15	N/A	N/A	185477
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	53	8/23/2023	51242215499	GWP	10/9/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/9/2023	AOC-10-202310-20	N/A	20.94	N/A	N/A	185425
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	58	8/23/2023	51242215499	GWP	10/10/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/10/2023	AOC-10-202310-23	N/A	17.98	N/A	N/A	185539
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	53	8/23/2023	51242215499	GWP	10/9/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/10/2023	AOC-10-202310-22	N/A	20.79	N/A	N/A	185495
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	53	8/23/2023	51242215499	GWP	10/10/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/10/2023	AOC-10-202310-24	N/A	21.23	N/A	N/A	185584
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	58	8/23/2023	51242215499	GWP	10/11/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/11/2023	AOC-10-202310-25	N/A	18.06	N/A	N/A	185603
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	57	8/23/2023	51242215499	GWP	10/11/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/11/2023	AOC-10-202310-26	N/A	18.42	N/A	N/A	185677
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	58	8/23/2023	51242215499	GWP	10/11/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/11/2023	AOC-10-202310-27	N/A	18.61	N/A	N/A	185674
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	58	8/23/2023	51242215499	GWP	10/12/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/12/2023	AOC-10-202310-28	N/A	20.22	N/A	N/A	185769
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	57	8/23/2023	51242215499	GWP	10/12/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/12/2023	AOC-10-202310-29	N/A	20.41	N/A	N/A	185773
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	79	8/23/2023	51242215499	GWP	10/13/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/13/2023	AOC-10-202310-31	N/A	15.12	N/A	N/A	185829
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	58	8/23/2023	51242215499	GWP	10/13/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/13/2023	AOC-10-202310-32	N/A	20.32	N/A	N/A	185827
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	57	8/23/2023	51242215499	GWP	10/13/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/13/2023	AOC-10-202310-30	N/A	20.76	N/A	N/A	185832
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	79	8/23/2023	51242215499	GWP	10/14/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/14/2023	AOC-10-202310-36	N/A	14.84	N/A	N/A	185848
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	77	8/23/2023	51242215499	GWP	10/14/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/14/2023	AOC-10-202310-35	N/A	17.36	N/A	N/A	185853
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	58	8/23/2023	51242215499	GWP	10/14/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/14/2023	AOC-10-202310-34	N/A	19.94	N/A	N/A	185846
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	57	8/23/2023	51242215499	GWP	10/14/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/14/2023	AOC-10-202310-37	N/A	20.08	N/A	N/A	185849
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	61	8/23/2023	51242215499	GWP	10/13/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/14/2023	AOC-10-202310-33	N/A	20.43	N/A	N/A	185847
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	53	8/23/2023	51242215499	GWP	10/14/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/14/2023	AOC-10-202310-38	N/A	20.75	N/A	N/A	185850
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	58	8/23/2023	51242215499	GWP	10/16/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/16/2023	AOC-10-202310-41	N/A	19.81	N/A	N/A	185954
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	57	8/23/2023	51242215499	GWP	10/16/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/16/2023	AOC-10-202310-39	N/A	19.98	N/A	N/A	185953
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	10/17/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/17/2023	BCW-202310-01	N/A	23.07	N/A	N/A	186002
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	10/17/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/17/2023	BCW-202310-02	N/A	23.58	N/A	N/A	186040
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	10/17/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/17/2023	BCW-202310-03	N/A	24.88	N/A	N/A	186006
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	10/17/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/17/2023	BCW-202310-04	N/A	23.39	N/A	N/A	186041
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	10/17/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/17/2023	BCW-202310-05	N/A	22.22	N/A	N/A	186047
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	61	8/23/2023	51242215499	GWP	10/16/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/17/2023	AOC-10-202310-40	N/A	22.04	N/A	N/A	185974
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	61	8/23/2023	51242215499	GWP	10/17/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/18/2023	AOC-10-202310-42	N/A	21.04	N/A	N/A	186111
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	10/18/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/18/2023	BCW-202310-06	N/A	23.91	N/A	N/A	186076
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	10/18/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/18/2023	BCW-202310-07	N/A	23.94	N/A	N/A	186108
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	10/18/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/18/2023	BCW-202310-08	N/A	23.80	N/A	N/A	186077
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	10/18/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/18/2023	BCW-202310-10	N/A	23.91	N/A	N/A	186193
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	10/18/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/18/2023	BCW-202310-11	N/A	23.96	N/A	N/A	186192
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	10/18/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/19/2023	BCW-202310-09	N/A	23.74	N/A	N/A	186123
D31084AZ	Soil NTCRA	BCW	Truck	53																	

Table H-1. Nonhazardous Waste Tracking Log
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

Project #	Task Name	Site or Task Description	Container Type	Bin ID (Truck #)	Accumulation Start Date	Waste Profile	Transporter	Date Transported	Transporter DOT # and EPA ID	Disposal Facility	Disposal Facility State ID or EPA ID	Matrix	Waste Type (Haz, Nonhaz, TSCA)	Waste Code (RCRA then State)	Disposal Facility Date (found on final manifest)	Manifest #	Incineration	Landfill (tons)	Recycle	Onsite	Comments/Notes
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	10/24/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/24/2023	BCW-202310-30	N/A	23.96	N/A	N/A	186421
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	10/24/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/24/2023	BCW-202310-31	N/A	24.49	N/A	N/A	186432
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	10/24/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/24/2023	BCW-202310-32	N/A	23.52	N/A	N/A	186453
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	10/24/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/24/2023	BCW-202310-33	N/A	23.25	N/A	N/A	186454
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	10/25/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/25/2023	BCW-202310-34	N/A	23.35	N/A	N/A	186491
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	10/25/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/25/2023	BCW-202310-35	N/A	23.49	N/A	N/A	186492
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	10/25/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/25/2023	BCW-202310-36	N/A	23.84	N/A	N/A	186503
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	10/25/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/25/2023	BCW-202310-37	N/A	23.40	N/A	N/A	186533
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	10/25/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/25/2023	BCW-202310-38	N/A	23.59	N/A	N/A	186532
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	10/25/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/25/2023	BCW-202310-39	N/A	23.97	N/A	N/A	186544
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	10/26/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/26/2023	BCW-202310-40	N/A	23.44	N/A	N/A	186582
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	10/26/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/26/2023	BCW-202310-41	N/A	24.10	N/A	N/A	186585
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	10/26/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/26/2023	BCW-202310-42	N/A	23.82	N/A	N/A	186623
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	10/26/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/26/2023	BCW-202310-43	N/A	24.02	N/A	N/A	186624
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	61	8/23/2023	51242215499	GWP	10/25/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/26/2023	AOC-10-202310-43	N/A	21.50	N/A	N/A	186565
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	60	8/23/2023	51242215499	GWP	10/26/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/27/2023	AOC-10-202310-45	N/A	20.41	N/A	N/A	44704
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	61	8/23/2023	51242215499	GWP	10/26/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/27/2023	AOC-10-202310-44	N/A	20.82	N/A	N/A	44703
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	10/27/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/27/2023	BCW-202310-44	N/A	23.06	N/A	N/A	186668
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	10/27/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/27/2023	BCW-202310-45	N/A	24.13	N/A	N/A	186678
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	10/27/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/27/2023	BCW-202310-46	N/A	23.23	N/A	N/A	186724
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	61	8/23/2023	51242215499	GWP	10/27/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/27/2023	AOC-10-202310-46	N/A	21.34	N/A	N/A	44705
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	77	8/23/2023	51242215499	GWP	10/27/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/28/2023	AOC-10-202310-49	N/A	14.69	N/A	N/A	44707
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	79	8/23/2023	51242215499	GWP	10/27/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/28/2023	AOC-10-202310-50	N/A	15.55	N/A	N/A	44709
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	78	8/23/2023	51242215499	GWP	10/27/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/28/2023	AOC-10-202310-48	N/A	15.69	N/A	N/A	44708
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	60	8/23/2023	51242215499	GWP	10/27/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/28/2023	AOC-10-202310-47	N/A	19.63	N/A	N/A	44706
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	10/27/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/28/2023	BCW-202310-47	N/A	23.74	N/A	N/A	186745
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	10/30/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/30/2023	BCW-202310-48	N/A	24.35	N/A	N/A	186785
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	10/30/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/30/2023	BCW-202310-49	N/A	23.87	N/A	N/A	186791
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	10/30/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/30/2023	BCW-202310-50	N/A	23.38	N/A	N/A	186844
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	10/30/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/30/2023	BCW-202310-51	N/A	23.09	N/A	N/A	186848
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	61	8/23/2023	51242215499	GWP	10/30/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/30/2023	AOC-10-202310-51	N/A	21.98	N/A	N/A	44710
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	10/31/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/31/2023	BCW-202310-52	N/A	24.05	N/A	N/A	186900
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	10/31/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/31/2023	BCW-202310-53	N/A	23.71	N/A	N/A	186916
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	10/31/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/31/2023	BCW-202310-54	N/A	22.72	N/A	N/A	186964
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	10/31/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	10/31/2023	BCW-202310-55	N/A	24.27	N/A	N/A	186961
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	11/1/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/1/2023	BCW-202310-58	N/A	23.09	N/A	N/A	187035
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	11/1/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/1/2023	BCW-202310-56	N/A	23.44	N/A	N/A	186994
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	11/1/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/1/2023	BCW-202310-57	N/A	23.94	N/A	N/A	187026
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	61	8/23/2023	51242215499	GWP	10/31/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/1/2023	AOC-10-202310-52	N/A	21.69	N/A	N/A	186979
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	11/2/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/2/2023	BCW-202310-63	N/A	23.14	N/A	N/A	187140
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	11/2/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/2/2023	BCW-202310-62	N/A	23.23	N/A	N/A	187123
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	11/1/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/2/2023	BCW-202310-59	N/A	23.41	N/A	N/A	187065
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	11/2/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/2/2023	BCW-202310-60	N/A	23.71	N/A	N/A	187087
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	11/2/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/2/2023	BCW-202310-61	N/A	24.60	N/A	N/A	187088
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	61	8/23/2023	51242215499	GWP	11/1/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/2/2023	AOC-10-202310-53	N/A	22.35	N/A	N/A	187066
D31084AZ	Soil NTCRA	BCW	Truck	60	8/23/2023	51242215499	GWP	11/2/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/3/2023	AOC-10-202310-54	N/A	21.17	N/A	N/A	187156
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	11/3/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/3/2023	BCW-202311-02	N/A	23.18	N/A	N/A	187186
D31084AZ	Soil NTCRA	BCW	Truck	61	8/23/2023	51242215499	GWP	11/2/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/3/2023	AOC-10-202310-55	N/A	22.15	N/A	N/A	187159
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	79	8/23/2023	51242215499	GWP	11/3/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/4/2023	AOC-10-202311-04	N/A	14.74	N/A	N/A	187234
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	78	8/23/2023	51242215499	GWP	11/4/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/4/2023	AOC-10-202311-03	N/A	16.48	N/A	N/A	187229
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	60	8/23/2023	51242215499	GWP	11/4/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/4/2023	AOC-10-202311-02	N/A	18.93	N/A	N/A	187227
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	11/4/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/4/2023	BCW-202311-01	N/A	23.92	N/A	N/A	187228
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	61	8/23/2023	51242215499	GWP	11/4/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/4/2023	AOC-10-202311-01	N/A	23.49	N/A	N/A	187226
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	11/6/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/6/2023	BCW-202311-03	N/A	24.42	N/A	N/A	187272
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	11/6/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	11/7/2023	BCW-202311-04	N/A	21.71	N/A	N/A	18733

Table H-1. Nonhazardous Waste Tracking Log
Soil NTCRA Completion Report
Topock Compressor Station, Needles, California

Project #	Task Name	Site or Task Description	Container Type	Bin ID (Truck #)	Accumulation Start Date	Waste Profile	Transporter	Date Transported	Transporter DOT # and EPA ID	Disposal Facility	Disposal Facility State ID or EPA ID	Matrix	Waste Type (Haz, Nonhaz, TSCA)	Waste Code (RCRA then State)	Disposal Facility Date (found on final manifest)	Manifest #	Incineration	Landfill (tons)	Recycle	Onsite	Comments/Notes
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	12/5/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/5/2023	BCW-202312-04	N/A	23.04	N/A	N/A	189130
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	12/5/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/5/2023	BCW-202312-05	N/A	24.87	N/A	N/A	189149
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	12/5/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/5/2023	BCW-202312-06	N/A	24.93	N/A	N/A	189148
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	58	8/23/2023	51242215499	GWP	12/5/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/6/2023	AOC-10-202312-04	N/A	21.07	N/A	N/A	189175
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	62	8/23/2023	51242215499	GWP	12/5/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/6/2023	AOC-10-202312-03	N/A	21.09	N/A	N/A	189194
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	12/6/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/6/2023	BCW-202312-07	N/A	23.28	N/A	N/A	189180
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	12/6/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/6/2023	BCW-202312-08	N/A	24.89	N/A	N/A	189197
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	12/6/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/6/2023	BCW-202312-09	N/A	24.87	N/A	N/A	189196
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	12/6/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/6/2023	BCW-202312-10	N/A	22.75	N/A	N/A	189235
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	59	8/23/2023	51242215499	GWP	12/6/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/6/2023	AOC-10-202312-05	N/A	21.91	N/A	N/A	189232
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	62	8/23/2023	51242215499	GWP	12/6/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/7/2023	AOC-10-202312-06	N/A	20.15	N/A	N/A	189293
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	12/6/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/7/2023	BCW-202312-11	N/A	24.68	N/A	N/A	189281
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	12/6/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/7/2023	BCW-202312-12	N/A	24.25	N/A	N/A	189276
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	12/6/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/7/2023	BCW-202312-13	N/A	22.81	N/A	N/A	189282
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	12/7/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/7/2023	BCW-202312-14	N/A	24.47	N/A	N/A	189329
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	12/7/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/7/2023	BCW-202312-15	N/A	23.00	N/A	N/A	189346
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	12/7/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/7/2023	BCW-202312-16	N/A	24.49	N/A	N/A	189345
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	59	8/23/2023	51242215499	GWP	12/7/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/7/2023	AOC-10-202312-08	N/A	22.06	N/A	N/A	189347
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	59	8/23/2023	51242215499	GWP	12/6/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/7/2023	AOC-10-202312-07	N/A	22.36	N/A	N/A	189277
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	60	8/23/2023	51242215499	GWP	12/8/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/8/2023	AOC-10-202312-11	N/A	17.88	N/A	N/A	189432
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	59	8/23/2023	51242215499	GWP	12/7/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/8/2023	AOC-10-202312-09	N/A	20.77	N/A	N/A	189375
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	59	8/23/2023	51242215499	GWP	12/8/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/8/2023	AOC-10-202312-10	N/A	21.35	N/A	N/A	189426
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	12/7/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/8/2023	BCW-202312-17	N/A	23.20	N/A	N/A	189373
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	12/7/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/8/2023	BCW-202312-18	N/A	23.29	N/A	N/A	189378
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	12/7/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/8/2023	BCW-202312-19	N/A	22.80	N/A	N/A	189374
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	12/7/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/8/2023	BCW-202312-20	N/A	19.04	N/A	N/A	189377
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	12/8/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/8/2023	BCW-202312-21	N/A	22.02	N/A	N/A	189423
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	12/8/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/8/2023	BCW-202312-22	N/A	22.00	N/A	N/A	189431
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	12/8/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/8/2023	BCW-202312-23	N/A	22.89	N/A	N/A	189427
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	60	8/23/2023	51242215499	GWP	12/11/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/11/2023	AOC-10-202312-13	N/A	18.04	N/A	N/A	189503
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	12/11/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/11/2023	BCW-202312-24	N/A	22.17	N/A	N/A	189494
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	12/11/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/11/2023	BCW-202312-25	N/A	22.41	N/A	N/A	189502
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	12/11/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/11/2023	BCW-202312-26	N/A	22.99	N/A	N/A	189496
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	59	8/23/2023	51242215499	GWP	12/11/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/11/2023	AOC-10-202312-12	N/A	21.82	N/A	N/A	189499
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	60	8/23/2023	51242215499	GWP	12/12/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/12/2023	AOC-10-202312-17	N/A	18.20	N/A	N/A	189622
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	60	8/23/2023	51242215499	GWP	12/11/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/12/2023	AOC-10-202312-15	N/A	18.63	N/A	N/A	189574
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	59	8/23/2023	51242215499	GWP	12/11/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/12/2023	AOC-10-202312-14	N/A	20.76	N/A	N/A	189572
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	12/11/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/12/2023	BCW-202312-27	N/A	22.01	N/A	N/A	189571
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	12/11/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/12/2023	BCW-202312-28	N/A	22.71	N/A	N/A	189573
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	12/11/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/12/2023	BCW-202312-29	N/A	22.36	N/A	N/A	189575
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	12/12/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/12/2023	BCW-202312-30	N/A	22.75	N/A	N/A	189613
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	12/12/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/12/2023	BCW-202312-31	N/A	23.41	N/A	N/A	189612
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	12/12/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/12/2023	BCW-202312-32	N/A	23.21	N/A	N/A	189614
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	59	8/23/2023	51242215499	GWP	12/12/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/12/2023	AOC-10-202312-16	N/A	22.18	N/A	N/A	189615
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	60	8/23/2023	51242215499	GWP	12/12/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/13/2023	AOC-10-202312-19	N/A	17.95	N/A	N/A	189667
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	60	8/23/2023	51242215499	GWP	12/13/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/13/2023	AOC-10-202312-21	N/A	18.64	N/A	N/A	189725
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	59	8/23/2023	51242215499	GWP	12/12/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/13/2023	AOC-10-202312-18	N/A	20.74	N/A	N/A	189665
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	59	8/23/2023	51242215499	GWP	12/13/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/13/2023	AOC-10-202312-20	N/A	21.28	N/A	N/A	189722
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	12/12/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/13/2023	BCW-202312-33	N/A	22.38	N/A	N/A	189663
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	12/12/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/13/2023	BCW-202312-34	N/A	22.75	N/A	N/A	189666
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	12/12/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/13/2023	BCW-202312-35	N/A	21.48	N/A	N/A	189664
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	12/13/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/13/2023	BCW-202312-36	N/A	22.34	N/A	N/A	189719
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	12/13/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/13/2023	BCW-202312-37	N/A	23.13	N/A	N/A	189724
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	12/13/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/13/2023	BCW-202312-38	N/A	23.05	N/A	N/A	189718
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	12/14/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/14/2023	BCW-202312-39	N/A	23.41	N/A	N/A	

Table H-1. Nonhazardous Waste Tracking Log
Soil NTCRA Completion Report
Topock Compressor Station, Needles, California

Project #	Task Name	Site or Task Description	Container Type	Bin ID (Truck #)	Accumulation Start Date	Waste Profile	Transporter	Date Transported	Transporter DOT # and EPA ID	Disposal Facility	Disposal Facility State ID or EPA ID	Matrix	Waste Type (Haz, Nonhaz, TSCA)	Waste Code (RCRA then State)	Disposal Facility Date (found on final manifest)	Manifest #	Incineration	Landfill (tons)	Recycle	Onsite	Comments/Notes
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	12/18/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/19/2023	BCW-202312-46	N/A	21.69	N/A	N/A	190023
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	12/19/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/19/2023	BCW-202312-47	N/A	20.21	N/A	N/A	190103
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	59	8/23/2023	51242215499	GWP	12/19/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/19/2023	AOC-10-202312-31	N/A	23.36	N/A	N/A	190079
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	60	8/23/2023	51242215499	GWP	12/19/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/20/2023	AOC-10-202312-34	N/A	17.49	N/A	N/A	190130
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	59	8/23/2023	51242215499	GWP	12/19/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/20/2023	AOC-10-202312-35	N/A	17.64	N/A	N/A	190129
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	60	8/23/2023	51242215499	GWP	12/20/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/20/2023	AOC-10-202312-38	N/A	18.16	N/A	N/A	190194
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	62	8/23/2023	51242215499	GWP	12/19/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/20/2023	AOC-10-202312-36	N/A	19.68	N/A	N/A	190158
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	59	8/23/2023	51242215499	GWP	12/20/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/20/2023	AOC-10-202312-37	N/A	20.40	N/A	N/A	190195
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	62	8/23/2023	51242215499	GWP	12/20/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/20/2023	AOC-10-202312-39	N/A	20.49	N/A	N/A	190215
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	12/20/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/20/2023	BCW-202312-48	N/A	22.96	N/A	N/A	190193
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	60	8/23/2023	51242215499	GWP	12/21/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/21/2023	AOC-10-202312-44	N/A	15.88	N/A	N/A	190294
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	60	8/23/2023	51242215499	GWP	12/20/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/21/2023	AOC-10-202312-40	N/A	16.62	N/A	N/A	190238
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	62	8/23/2023	51242215499	GWP	12/20/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/21/2023	AOC-10-202312-42	N/A	16.70	N/A	N/A	190268
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	59	8/23/2023	51242215499	GWP	12/21/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/21/2023	AOC-10-202312-43	N/A	17.49	N/A	N/A	190295
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	59	8/23/2023	51242215499	GWP	12/20/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/21/2023	AOC-10-202312-41	N/A	19.14	N/A	N/A	190237
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	62	8/23/2023	51242215499	GWP	12/21/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/21/2023	AOC-10-202312-45	N/A	19.67	N/A	N/A	190312
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	12/20/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/21/2023	BCW-202312-49	N/A	21.90	N/A	N/A	190236
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	12/21/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/21/2023	BCW-202312-50	N/A	21.50	N/A	N/A	190280
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	12/21/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/21/2023	BCW-202312-51	N/A	21.10	N/A	N/A	190287
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	60	8/23/2023	51242215499	GWP	12/21/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/22/2023	AOC-10-202312-46	N/A	18.08	N/A	N/A	190335
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	59	8/23/2023	51242215499	GWP	12/21/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/22/2023	AOC-10-202312-47	N/A	19.01	N/A	N/A	190334
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	62	8/23/2023	51242215499	GWP	12/21/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/22/2023	AOC-10-202312-48	N/A	19.48	N/A	N/A	190371
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	12/21/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/22/2023	BCW-202312-52	N/A	21.96	N/A	N/A	190333
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	12/21/2023	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	12/22/2023	BCW-202312-53	N/A	22.23	N/A	N/A	190338
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	78	8/23/2023	51242215499	GWP	1/5/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/5/2024	AOC-10-202401-03	N/A	15.03	N/A	N/A	191032
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	59	8/23/2023	51242215499	GWP	1/5/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/5/2024	AOC-10-202401-01	N/A	20.29	N/A	N/A	191002
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	62	8/23/2023	51242215499	GWP	1/5/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/5/2024	AOC-10-202401-06	N/A	20.30	N/A	N/A	191052
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	63	8/23/2023	51242215499	GWP	1/5/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/5/2024	AOC-10-202401-02	N/A	20.68	N/A	N/A	191001
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	59	8/23/2023	51242215499	GWP	1/5/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/5/2024	AOC-10-202401-05	N/A	20.91	N/A	N/A	191051
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	63	8/23/2023	51242215499	GWP	1/5/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/5/2024	AOC-10-202401-04	N/A	21.70	N/A	N/A	191049
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	1/5/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/5/2024	BCW-202401-03	N/A	19.04	N/A	N/A	191003
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	1/5/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/5/2024	BCW-202401-04	N/A	22.81	N/A	N/A	191042
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	1/5/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/5/2024	BCW-202401-05	N/A	23.69	N/A	N/A	191047
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	1/5/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/5/2024	BCW-202401-02	N/A	23.88	N/A	N/A	191000
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	1/5/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/5/2024	BCW-202401-01	N/A	24.57	N/A	N/A	190999
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	78	8/23/2023	51242215499	GWP	1/5/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/6/2024	AOC-10-202401-07	N/A	15.59	N/A	N/A	191084
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	62	8/23/2023	51242215499	GWP	1/5/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/6/2024	AOC-10-202401-09	N/A	20.02	N/A	N/A	191083
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	59	8/23/2023	51242215499	GWP	1/5/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/6/2024	AOC-10-202401-10	N/A	20.15	N/A	N/A	191082
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	63	8/23/2023	51242215499	GWP	1/5/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/6/2024	AOC-10-202401-08	N/A	21.34	N/A	N/A	191081
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	1/5/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/6/2024	BCW-202401-06	N/A	22.31	N/A	N/A	191086
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	80	8/23/2023	51242215499	GWP	1/8/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/8/2024	AOC-10-202401-11	N/A	14.32	N/A	N/A	191121
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	78	8/23/2023	51242215499	GWP	1/8/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/8/2024	AOC-10-202401-13	N/A	14.42	N/A	N/A	191123
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	80	8/23/2023	51242215499	GWP	1/8/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/8/2024	AOC-10-202401-17	N/A	14.50	N/A	N/A	191174
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	79	8/23/2023	51242215499	GWP	1/8/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/8/2024	AOC-10-202401-16	N/A	15.28	N/A	N/A	191143
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	78	8/23/2023	51242215499	GWP	1/8/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/8/2024	AOC-10-202401-18	N/A	15.80	N/A	N/A	191171
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	62	8/23/2023	51242215499	GWP	1/8/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/8/2024	AOC-10-202401-12	N/A	19.54	N/A	N/A	191129
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	59	8/23/2023	51242215499	GWP	1/8/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/8/2024	AOC-10-202401-14	N/A	20.60	N/A	N/A	191127
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	63	8/23/2023	51242215499	GWP	1/8/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/8/2024	AOC-10-202401-15	N/A	21.10	N/A	N/A	191126
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	1/8/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/8/2024	BCW-202401-07	N/A	23.75	N/A	N/A	191175
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	80	8/23/2023	51242215499	GWP	1/9/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/9/2024	AOC-10-202401-25	N/A	14.10	N/A	N/A	191209
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	79	8/23/2023	51242215499	GWP	1/8/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/9/2024	AOC-10-202401-20	N/A	14.32	N/A	N/A	191197
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	80	8/23/2023	51242215499	GWP	1/9/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/9/2024	AOC-10-202401-29	N/A	14.32	N/A	N/A	191266
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	79	8/23/2023	51242215499	GWP	1/9/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/9/2024	AOC-10-202401-28	N/A	14.42	N/A	N/A	191253
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	78	8/23/2023	51242215499	GWP	1/8/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/9/2024	AOC-10-202401-24	N/A	15.37	N/A	N/A	191192
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	78	8/23/2023	51242215499	GWP	1/9/2024	N/A	La Paz	AZR000520882	Soil	Nonh								

Table H-1. Nonhazardous Waste Tracking Log
Soil NTCRA Completion Report
Topock Compressor Station, Needles, California

Project #	Task Name	Site or Task Description	Container Type	Bin ID (Truck #)	Accumulation Start Date	Waste Profile	Transporter	Date Transported	Transporter DOT # and EPA ID	Disposal Facility	Disposal Facility State ID or EPA ID	Matrix	Waste Type (Haz, Nonhaz, TSCA)	Waste Code (RCRA then State)	Disposal Date (found on final manifest)	Manifest #	Incineration	Landfill (tons)	Recycle	Onsite	Comments/Notes
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	78	8/23/2023	51242215499	GWP	1/9/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/10/2024	AOC-10-202401-31	N/A	15.33	N/A	N/A	191303
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	62	8/23/2023	51242215499	GWP	1/9/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/10/2024	AOC-10-202401-32	N/A	20.13	N/A	N/A	191316
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	60	8/23/2023	51242215499	GWP	1/10/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/10/2024	AOC-10-202401-34	N/A	20.18	N/A	N/A	191306
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	63	8/23/2023	51242215499	GWP	1/10/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/10/2024	AOC-10-202401-35	N/A	20.66	N/A	N/A	191340
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	59	8/23/2023	51242215499	GWP	1/9/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/10/2024	AOC-10-202401-30	N/A	20.70	N/A	N/A	191305
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	59	8/23/2023	51242215499	GWP	1/10/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/10/2024	AOC-10-202401-37	N/A	21.16	N/A	N/A	191354
D31084AZ	Soil NTCRA	BCW	Truck	78	9/15/2023	51242315251	GWP	1/10/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/10/2024	BCW-202401-16	N/A	15.49	N/A	N/A	191348
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	1/10/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/10/2024	BCW-202401-18	N/A	18.06	N/A	N/A	191359
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	1/10/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/10/2024	BCW-202401-19	N/A	19.75	N/A	N/A	191370
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	1/10/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/10/2024	BCW-202401-25	N/A	21.60	N/A	N/A	191408
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	1/9/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/10/2024	BCW-202401-12	N/A	22.43	N/A	N/A	191304
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	1/9/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/10/2024	BCW-202401-13	N/A	22.91	N/A	N/A	191302
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	1/10/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/10/2024	BCW-202401-14	N/A	22.94	N/A	N/A	191339
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	1/10/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/10/2024	BCW-202401-17	N/A	23.28	N/A	N/A	191352
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	1/10/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/10/2024	BCW-202401-15	N/A	23.30	N/A	N/A	191350
D31084AZ	Soil NTCRA	AOC10TAA1	Truck	79	8/23/2023	51242215499	GWP	1/10/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/11/2024	AOC-10-202401-38	N/A	13.64	N/A	N/A	191419
D31084AZ	Soil NTCRA	BCW	Truck	80	9/15/2023	51242315251	GWP	1/10/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/11/2024	BCW-202401-28	N/A	14.51	N/A	N/A	191423
D31084AZ	Soil NTCRA	BCW	Truck	80	9/15/2023	51242315251	GWP	1/11/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/11/2024	BCW-202401-35	N/A	14.58	N/A	N/A	191475
D31084AZ	Soil NTCRA	BCW	Truck	78	9/15/2023	51242315251	GWP	1/10/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/11/2024	BCW-202401-24	N/A	15.20	N/A	N/A	191406
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	1/11/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/11/2024	BCW-202401-34	N/A	15.48	N/A	N/A	191479
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	1/11/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/11/2024	BCW-202401-36	N/A	19.44	N/A	N/A	191482
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	1/10/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/11/2024	BCW-202401-27	N/A	19.85	N/A	N/A	191426
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	1/11/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/11/2024	BCW-202401-33	N/A	19.97	N/A	N/A	191481
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	1/10/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/11/2024	BCW-202401-26	N/A	20.62	N/A	N/A	191412
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	1/11/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/11/2024	BCW-202401-31	N/A	21.18	N/A	N/A	191469
D31084AZ	Soil NTCRA	BCW	Truck	63	9/15/2023	51242315251	GWP	1/10/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/11/2024	BCW-202401-20	N/A	22.15	N/A	N/A	191410
D31084AZ	Soil NTCRA	BCW	Truck	63	9/15/2023	51242315251	GWP	1/11/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/11/2024	BCW-202401-32	N/A	22.20	N/A	N/A	191474
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	1/10/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/11/2024	BCW-202401-21	N/A	23.16	N/A	N/A	191404
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	1/10/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/11/2024	BCW-202401-23	N/A	23.21	N/A	N/A	191405
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	1/11/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/11/2024	BCW-202401-30	N/A	23.35	N/A	N/A	191465
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	1/10/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/11/2024	BCW-202401-22	N/A	23.36	N/A	N/A	191411
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	1/11/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/11/2024	BCW-202401-29	N/A	23.41	N/A	N/A	191464
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	1/11/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/12/2024	BCW-202401-41	N/A	14.55	N/A	N/A	191527
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	1/12/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/12/2024	BCW-202401-47	N/A	15.35	N/A	N/A	191580
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	1/11/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/12/2024	BCW-202401-42	N/A	20.25	N/A	N/A	191557
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	1/11/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/12/2024	BCW-202401-43	N/A	20.56	N/A	N/A	191517
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	1/12/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/12/2024	BCW-202401-46	N/A	20.94	N/A	N/A	191574
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	1/12/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/12/2024	BCW-202401-48	N/A	21.21	N/A	N/A	191579
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	1/11/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/12/2024	BCW-202401-39	N/A	21.28	N/A	N/A	191521
D31084AZ	Soil NTCRA	BCW	Truck	63	9/15/2023	51242315251	GWP	1/11/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/12/2024	BCW-202401-40	N/A	21.98	N/A	N/A	191515
D31084AZ	Soil NTCRA	BCW	Truck	63	9/15/2023	51242315251	GWP	1/12/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/12/2024	BCW-202401-45	N/A	22.12	N/A	N/A	191569
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	1/11/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/12/2024	BCW-202401-37	N/A	22.85	N/A	N/A	191513
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	1/11/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/12/2024	BCW-202401-38	N/A	23.01	N/A	N/A	191514
D31084AZ	Soil NTCRA	BCW	Truck	80	9/15/2023	51242315251	GWP	1/15/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/15/2024	BCW-202401-53	N/A	12.94	N/A	N/A	191637
D31084AZ	Soil NTCRA	BCW	Truck	78	9/15/2023	51242315251	GWP	1/15/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/15/2024	BCW-202401-51	N/A	13.03	N/A	N/A	191640
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	1/15/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/15/2024	BCW-202401-54	N/A	13.50	N/A	N/A	191644
D31084AZ	Soil NTCRA	BCW	Truck	78	9/15/2023	51242315251	GWP	1/15/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/15/2024	BCW-202401-62	N/A	14.40	N/A	N/A	191709
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	1/15/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/15/2024	BCW-202401-61	N/A	14.70	N/A	N/A	191700
D31084AZ	Soil NTCRA	BCW	Truck	80	9/15/2023	51242315251	GWP	1/15/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/15/2024	BCW-202401-60	N/A	16.31	N/A	N/A	191689
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	1/12/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/15/2024	BCW-202401-50	N/A	20.09	N/A	N/A	191671
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	1/15/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/15/2024	BCW-202401-57	N/A	20.44	N/A	N/A	191662
D31084AZ	Soil NTCRA	BCW	Truck	63	9/15/2023	51242315251	GWP	1/15/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/15/2024	BCW-202401-56	N/A	21.38	N/A	N/A	191666
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	1/15/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/15/2024	BCW-202401-52	N/A	21.44	N/A	N/A	191658
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	1/12/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/15/2024	BCW-202401-44	N/A	22.37	N/A	N/A	191599
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	1/15/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/15/2024	BCW-202401-55	N/A	22.94	N/A	N/A	191653
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	1/15/2024	N/A	La Paz	AZR00052										

Table H-1. Nonhazardous Waste Tracking Log
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

Project #	Task Name	Site or Task Description	Container Type	Bin ID (Truck #)	Accumulation Start Date	Waste Profile	Transporter	Date Transported	Transporter DOT # and EPA ID	Disposal Facility	Disposal Facility State ID or EPA ID	Matrix	Waste Type (Haz, Nonhaz, TSCA)	Waste Code (RCRA then State)	Disposal Facility Date (found on final manifest)	Manifest #	Incineration	Landfill (tons)	Recycle	Onsite	Comments/Notes
D31084AZ	Soil NTCRA	BCW	Truck	63	9/15/2023	51242315251	GWP	1/15/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/16/2024	BCW-202401-67	N/A	21.46	N/A	N/A	191719
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	1/16/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/16/2024	BCW-202401-73	N/A	21.63	N/A	N/A	191774
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	1/15/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/16/2024	BCW-202401-64	N/A	21.80	N/A	N/A	191720
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	1/16/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/16/2024	BCW-202401-72	N/A	22.74	N/A	N/A	191766
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	1/15/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/16/2024	BCW-202401-66	N/A	23.06	N/A	N/A	191717
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	1/15/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/16/2024	BCW-202401-63	N/A	23.43	N/A	N/A	191718
D31084AZ	Soil NTCRA	BCW	Truck	80	9/15/2023	51242315251	GWP	1/17/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/17/2024	BCW-202401-85	N/A	14.47	N/A	N/A	191858
D31084AZ	Soil NTCRA	BCW	Truck	80	9/15/2023	51242315251	GWP	1/17/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/17/2024	BCW-202401-93	N/A	15.14	N/A	N/A	191910
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	1/17/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/17/2024	BCW-202401-92	N/A	15.16	N/A	N/A	191921
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	1/17/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/17/2024	BCW-202401-86	N/A	15.19	N/A	N/A	191856
D31084AZ	Soil NTCRA	BCW	Truck	78	9/15/2023	51242315251	GWP	1/17/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/17/2024	BCW-202401-87	N/A	15.48	N/A	N/A	191852
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	1/17/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/17/2024	BCW-202401-94	N/A	18.23	N/A	N/A	191912
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	1/16/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/17/2024	BCW-202401-84	N/A	18.72	N/A	N/A	191860
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	1/17/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/17/2024	BCW-202401-90	N/A	20.28	N/A	N/A	191899
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	1/16/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/17/2024	BCW-202401-82	N/A	20.46	N/A	N/A	191829
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	1/17/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/17/2024	BCW-202401-91	N/A	20.78	N/A	N/A	191898
D31084AZ	Soil NTCRA	BCW	Truck	63	9/15/2023	51242315251	GWP	1/16/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/17/2024	BCW-202401-80	N/A	20.94	N/A	N/A	191828
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	1/16/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/17/2024	BCW-202401-81	N/A	20.95	N/A	N/A	191827
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	1/17/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/17/2024	BCW-202401-89	N/A	21.27	N/A	N/A	191894
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	1/17/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/17/2024	BCW-202401-95	N/A	21.66	N/A	N/A	191938
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	1/17/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/17/2024	BCW-202401-96	N/A	22.42	N/A	N/A	191939
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	1/16/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/17/2024	BCW-202401-83	N/A	22.50	N/A	N/A	191825
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	1/16/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/17/2024	BCW-202401-79	N/A	22.76	N/A	N/A	191826
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	1/17/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/17/2024	BCW-202401-88	N/A	23.21	N/A	N/A	191893
D31084AZ	Soil NTCRA	BCW	Truck	80	9/15/2023	51242315251	GWP	1/18/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/18/2024	BCW-202401-108	N/A	14.72	N/A	N/A	192034
D31084AZ	Soil NTCRA	BCW	Truck	80	9/15/2023	51242315251	GWP	1/18/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/18/2024	BCW-202401-99	N/A	15.09	N/A	N/A	191972
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	1/18/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/18/2024	BCW-202401-107	N/A	15.29	N/A	N/A	192052
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	1/18/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/18/2024	BCW-202401-101	N/A	15.63	N/A	N/A	191977
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	1/18/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/18/2024	BCW-202401-106	N/A	18.85	N/A	N/A	192036
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	1/18/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/18/2024	BCW-202401-100	N/A	20.61	N/A	N/A	191973
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	1/18/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/18/2024	BCW-202401-109	N/A	20.63	N/A	N/A	192042
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	1/18/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/18/2024	BCW-202401-102	N/A	21.22	N/A	N/A	191975
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	1/18/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/18/2024	BCW-202401-105	N/A	21.72	N/A	N/A	192018
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	1/18/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/18/2024	BCW-202401-103	N/A	23.18	N/A	N/A	192001
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	1/18/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/18/2024	BCW-202401-104	N/A	23.54	N/A	N/A	192000
D31084AZ	Soil NTCRA	BCW	Truck	80	9/15/2023	51242315251	GWP	1/18/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/19/2024	BCW-202401-113	N/A	14.44	N/A	N/A	192090
D31084AZ	Soil NTCRA	BCW	Truck	80	9/15/2023	51242315251	GWP	1/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/19/2024	BCW-202401-118	N/A	14.65	N/A	N/A	192133
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	1/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/19/2024	BCW-202401-115	N/A	14.79	N/A	N/A	192144
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	1/18/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/19/2024	BCW-202401-112	N/A	19.83	N/A	N/A	192074
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	1/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/19/2024	BCW-202401-114	N/A	21.10	N/A	N/A	192113
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	1/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/19/2024	BCW-202401-117	N/A	21.37	N/A	N/A	192137
D31084AZ	Soil NTCRA	BCW	Truck	18020	12/19/2023	51242315251	MPe	1/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/19/2024	BCW-202401-MPe-05	N/A	21.57	N/A	N/A	192142
D31084AZ	Soil NTCRA	BCW	Truck	781	12/19/2023	51242315251	MPe	1/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/19/2024	BCW-202401-MPe-04	N/A	21.67	N/A	N/A	192141
D31084AZ	Soil NTCRA	BCW	Truck	752	12/19/2023	51242315251	MPe	1/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/19/2024	BCW-202401-MPe-02	N/A	22.30	N/A	N/A	192140
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	1/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/19/2024	BCW-202401-119	N/A	22.55	N/A	N/A	192157
D31084AZ	Soil NTCRA	BCW	Truck	766	12/19/2023	51242315251	MPe	1/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/19/2024	BCW-202401-MPe-01	N/A	22.55	N/A	N/A	192135
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	1/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/19/2024	BCW-202401-116	N/A	22.83	N/A	N/A	192158
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	1/18/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/19/2024	BCW-202401-110	N/A	23.00	N/A	N/A	192072
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	1/18/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/19/2024	BCW-202401-111	N/A	23.38	N/A	N/A	192073
D31084AZ	Soil NTCRA	BCW	Truck	1461258	12/19/2023	51242315251	MPe	1/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/19/2024	BCW-202401-MPe-03	N/A	23.89	N/A	N/A	192139
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	1/22/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/22/2024	BCW-202401-120	N/A	14.46	N/A	N/A	192238
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	1/22/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/22/2024	BCW-202401-121	N/A	19.57	N/A	N/A	192235
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	1/22/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/22/2024	BCW-202401-123	N/A	20.31	N/A	N/A	192229
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	1/22/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/22/2024	BCW-202401-126	N/A	20.83	N/A	N/A	192261
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	1/22/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/22/2024	BCW-202401-122	N/A	21.61	N/A	N/A	192231
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	1/22/2024													

Table H-1. Nonhazardous Waste Tracking Log
Soil NTCRA Completion Report
Topock Compressor Station, Needles, California

Project #	Task Name	Site or Task Description	Container Type	Bin ID (Truck #)	Accumulation Start Date	Waste Profile	Transporter	Date Transported	Transporter DOT # and EPA ID	Disposal Facility	Disposal Facility State ID or EPA ID	Matrix	Waste Type (Haz, Nonhaz, TSCA)	Waste Code (RCRA then State)	Disposal Facility Date (found on final manifest)	Manifest #	Incineration	Landfill (tons)	Recycle	Onsite	Comments/Notes
D31084AZ	Soil NTCRA	BCW	Truck	78	9/15/2023	51242315251	GWP	1/24/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/24/2024	BCW-202401-146	N/A	13.76	N/A	N/A	192420
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	1/24/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/24/2024	BCW-202401-145	N/A	19.23	N/A	N/A	192421
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	1/24/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/24/2024	BCW-202401-142	N/A	20.26	N/A	N/A	192418
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	1/24/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/24/2024	BCW-202401-144	N/A	21.08	N/A	N/A	192423
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	1/24/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/24/2024	BCW-202401-143	N/A	21.33	N/A	N/A	192419
D31084AZ	Soil NTCRA	BCW	Truck	63	9/15/2023	51242315251	GWP	1/24/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/24/2024	BCW-202401-140	N/A	21.98	N/A	N/A	192425
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	1/24/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/24/2024	BCW-202401-148	N/A	22.09	N/A	N/A	192464
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	1/24/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/24/2024	BCW-202401-147	N/A	22.15	N/A	N/A	192422
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	1/24/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/24/2024	BCW-202401-141	N/A	22.81	N/A	N/A	192414
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	1/25/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/25/2024	BCW-202401-156	N/A	18.55	N/A	N/A	192500
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	1/25/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/25/2024	BCW-202401-160	N/A	19.35	N/A	N/A	192518
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	1/24/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/25/2024	BCW-202401-152	N/A	19.94	N/A	N/A	192469
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	1/25/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/25/2024	BCW-202401-161	N/A	20.11	N/A	N/A	192519
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	1/24/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/25/2024	BCW-202401-150	N/A	20.14	N/A	N/A	192467
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	1/25/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/25/2024	BCW-202401-162	N/A	20.54	N/A	N/A	192520
D31084AZ	Soil NTCRA	BCW	Truck	63	9/15/2023	51242315251	GWP	1/25/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/25/2024	BCW-202401-163	N/A	20.74	N/A	N/A	192529
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	1/24/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/25/2024	BCW-202401-151	N/A	21.79	N/A	N/A	192468
D31084AZ	Soil NTCRA	BCW	Truck	63	9/15/2023	51242315251	GWP	1/24/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/25/2024	BCW-202401-155	N/A	22.09	N/A	N/A	192479
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	1/25/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/25/2024	BCW-202401-158	N/A	22.11	N/A	N/A	192509
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	1/25/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/25/2024	BCW-202401-159	N/A	22.40	N/A	N/A	192513
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	1/24/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/25/2024	BCW-202401-153	N/A	22.57	N/A	N/A	192465
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	1/25/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/25/2024	BCW-202401-157	N/A	22.73	N/A	N/A	192508
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	1/24/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/25/2024	BCW-202401-154	N/A	23.05	N/A	N/A	192466
D31084AZ	Soil NTCRA	BCW	Truck	80	9/15/2023	51242315251	GWP	1/25/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/26/2024	BCW-202401-165	N/A	12.03	N/A	N/A	192546
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	1/26/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/26/2024	BCW-202401-174	N/A	19.31	N/A	N/A	192619
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	1/26/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/26/2024	BCW-202401-178	N/A	19.33	N/A	N/A	192621
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	1/26/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/26/2024	BCW-202401-177	N/A	19.37	N/A	N/A	192617
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	1/25/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/26/2024	BCW-202401-168	N/A	19.46	N/A	N/A	192566
D31084AZ	Soil NTCRA	BCW	Truck	63	9/15/2023	51242315251	GWP	1/26/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/26/2024	BCW-202401-179	N/A	20.18	N/A	N/A	192644
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	1/25/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/26/2024	BCW-202401-164	N/A	20.19	N/A	N/A	192567
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	1/25/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/26/2024	BCW-202401-171	N/A	20.53	N/A	N/A	192570
D31084AZ	Soil NTCRA	BCW	Truck	63	9/15/2023	51242315251	GWP	1/26/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/26/2024	BCW-202401-172	N/A	20.78	N/A	N/A	192597
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	1/26/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/26/2024	BCW-202401-176	N/A	20.91	N/A	N/A	192613
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	1/25/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/26/2024	BCW-202401-170	N/A	21.24	N/A	N/A	192568
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	1/26/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/26/2024	BCW-202401-167	N/A	21.67	N/A	N/A	192572
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	1/25/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/26/2024	BCW-202401-166	N/A	22.16	N/A	N/A	192565
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	1/26/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/26/2024	BCW-202401-175	N/A	22.26	N/A	N/A	192655
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	1/25/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/26/2024	BCW-202401-169	N/A	22.35	N/A	N/A	192569
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	1/26/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/26/2024	BCW-202401-173	N/A	23.11	N/A	N/A	192612
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	1/29/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/29/2024	BCW-202401-186	N/A	14.14	N/A	N/A	192702
D31084AZ	Soil NTCRA	BCW	Truck	80	9/15/2023	51242315251	GWP	1/29/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/29/2024	BCW-202401-188	N/A	14.41	N/A	N/A	192700
D31084AZ	Soil NTCRA	BCW	Truck	80	9/15/2023	51242315251	GWP	1/29/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/29/2024	BCW-202401-191	N/A	14.70	N/A	N/A	192751
D31084AZ	Soil NTCRA	BCW	Truck	78	9/15/2023	51242315251	GWP	1/29/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/29/2024	BCW-202401-185	N/A	15.14	N/A	N/A	192703
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	1/29/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/29/2024	BCW-202401-183	N/A	19.14	N/A	N/A	192704
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	1/29/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/29/2024	BCW-202401-182	N/A	19.43	N/A	N/A	192697
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	1/29/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/29/2024	BCW-202401-184	N/A	19.88	N/A	N/A	192698
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	1/29/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/29/2024	BCW-202401-181	N/A	20.81	N/A	N/A	192707
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	1/29/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/29/2024	BCW-202401-187	N/A	21.20	N/A	N/A	192705
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	1/26/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/29/2024	BCW-202401-180	N/A	21.51	N/A	N/A	192656
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	1/29/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/29/2024	BCW-202401-189	N/A	21.92	N/A	N/A	192720
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	1/29/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/29/2024	BCW-202401-190	N/A	22.33	N/A	N/A	192722
D31084AZ	Soil NTCRA	BCW	Truck	77	9/15/2023	51242315251	GWP	1/29/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/30/2024	BCW-202401-200	N/A	14.19	N/A	N/A	192776
D31084AZ	Soil NTCRA	BCW	Truck	78	9/15/2023	51242315251	GWP	1/30/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/30/2024	BCW-202401-204	N/A	14.58	N/A	N/A	192831
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	1/30/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/30/2024	BCW-202401-203	N/A	14.61	N/A	N/A	192830
D31084AZ	Soil NTCRA	BCW	Truck	78	9/15/2023	51242315251	GWP	1/29/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/30/2024	BCW-202401-194	N/A	15.19	N/A	N/A	192789
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	1/29/2024	N												

Table H-1. Nonhazardous Waste Tracking Log
Soil NTCRA Completion Report
Topock Compressor Station, Needles, California

Project #	Task Name	Site or Task Description	Container Type	Bin ID (Truck #)	Accumulation Start Date	Waste Profile	Transporter	Date Transported	Transporter DOT # and EPA ID	Disposal Facility	Disposal Facility State ID or EPA ID	Matrix	Waste Type (Haz, Nonhaz, TSCA)	Waste Code (RCRA then State)	Disposal Facility Date (found on manifest)	Manifest #	Incineration	Landfill (tons)	Recycle	Onsite	Comments/Notes
D31084AZ	Soil NTCRA	BCW	Truck	80	9/15/2023	51242315251	GWP	1/31/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/31/2024	BCW-202401-223	N/A	14.40	N/A	N/A	192945
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	1/30/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/31/2024	BCW-202401-211	N/A	14.65	N/A	N/A	192900
D31084AZ	Soil NTCRA	BCW	Truck	77	9/15/2023	51242315251	GWP	1/31/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/31/2024	BCW-202401-221	N/A	14.87	N/A	N/A	192955
D31084AZ	Soil NTCRA	BCW	Truck	77	9/15/2023	51242315251	GWP	1/30/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/31/2024	BCW-202401-205	N/A	15.21	N/A	N/A	192883
D31084AZ	Soil NTCRA	BCW	Truck	78	9/15/2023	51242315251	GWP	1/31/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/31/2024	BCW-202401-224	N/A	15.42	N/A	N/A	192959
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	1/30/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/31/2024	BCW-202401-218	N/A	16.27	N/A	N/A	192879
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	1/31/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/31/2024	BCW-202401-228	N/A	18.11	N/A	N/A	192971
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	1/30/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/31/2024	BCW-202401-213	N/A	18.91	N/A	N/A	192880
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	1/31/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/31/2024	BCW-202401-222	N/A	19.58	N/A	N/A	192946
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	1/31/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/31/2024	BCW-202401-227	N/A	19.58	N/A	N/A	192952
D31084AZ	Soil NTCRA	BCW	Truck	63	9/15/2023	51242315251	GWP	1/31/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/31/2024	BCW-202401-229	N/A	19.67	N/A	N/A	192973
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	1/30/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/31/2024	BCW-202401-217	N/A	20.47	N/A	N/A	192881
D31084AZ	Soil NTCRA	BCW	Truck	63	9/15/2023	51242315251	GWP	1/31/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/31/2024	BCW-202401-219	N/A	20.97	N/A	N/A	192929
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	1/31/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/31/2024	BCW-202401-230	N/A	21.12	N/A	N/A	192979
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	1/30/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/31/2024	BCW-202401-215	N/A	21.62	N/A	N/A	192882
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	1/30/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/31/2024	BCW-202401-216	N/A	21.68	N/A	N/A	192878
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	1/30/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/31/2024	BCW-202401-210	N/A	22.43	N/A	N/A	192891
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	1/31/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/31/2024	BCW-202401-225	N/A	24.48	N/A	N/A	192949
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	1/31/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/31/2024	BCW-202401-226	N/A	24.56	N/A	N/A	192951
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	1/31/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	1/31/2024	BCW-202401-220	N/A	24.62	N/A	N/A	192943
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	1/31/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/1/2024	BCW-202401-231	N/A	24.51	N/A	N/A	192998
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	1/31/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/1/2024	BCW-202401-232	N/A	20.34	N/A	N/A	192995
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	1/31/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/1/2024	BCW-202401-233	N/A	19.91	N/A	N/A	192996
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	1/31/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/1/2024	BCW-202401-234	N/A	24.23	N/A	N/A	192997
D31084AZ	Soil NTCRA	BCW	Truck	78	9/15/2023	51242315251	GWP	1/31/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/1/2024	BCW-202401-235	N/A	15.00	N/A	N/A	193004
D31084AZ	Soil NTCRA	BCW	Truck	63	9/15/2023	51242315251	GWP	2/1/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/1/2024	BCW-202402-01	N/A	20.75	N/A	N/A	193046
D31084AZ	Soil NTCRA	BCW	Truck	80	9/15/2023	51242315251	GWP	2/1/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/1/2024	BCW-202402-02	N/A	14.76	N/A	N/A	193036
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	2/1/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/1/2024	BCW-202402-03	N/A	20.11	N/A	N/A	193040
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	2/1/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/1/2024	BCW-202402-04	N/A	20.87	N/A	N/A	193038
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	2/1/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/1/2024	BCW-202402-05	N/A	23.48	N/A	N/A	193044
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	2/1/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/1/2024	BCW-202402-06	N/A	23.98	N/A	N/A	193051
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	2/1/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/1/2024	BCW-202402-07	N/A	19.76	N/A	N/A	193056
D31084AZ	Soil NTCRA	BCW	Truck	78	9/15/2023	51242315251	GWP	2/1/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/1/2024	BCW-202402-08	N/A	15.18	N/A	N/A	193063
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	2/1/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/1/2024	BCW-202402-09	N/A	23.58	N/A	N/A	193057
D31084AZ	Soil NTCRA	BCW	Truck	80	9/15/2023	51242315251	GWP	2/1/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/1/2024	BCW-202402-10	N/A	14.31	N/A	N/A	193077
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	2/1/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/1/2024	BCW-202402-12	N/A	20.89	N/A	N/A	193078
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	2/1/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/5/2024	BCW-202402-11	N/A	19.76	N/A	N/A	193174
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	2/1/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/5/2024	BCW-202402-13	N/A	19.84	N/A	N/A	193172
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	2/1/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/5/2024	BCW-202402-14	N/A	22.16	N/A	N/A	193170
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	2/1/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/5/2024	BCW-202402-15	N/A	21.59	N/A	N/A	193176
D31084AZ	Soil NTCRA	BCW	Truck	63	9/15/2023	51242315251	GWP	2/1/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/5/2024	BCW-202402-16	N/A	19.41	N/A	N/A	193188
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	2/1/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/5/2024	BCW-202402-17	N/A	18.13	N/A	N/A	193171
D31084AZ	Soil NTCRA	BCW	Truck	78	9/15/2023	51242315251	GWP	2/1/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/5/2024	BCW-202402-18	N/A	15.23	N/A	N/A	193182
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	2/1/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/5/2024	BCW-202402-19	N/A	21.77	N/A	N/A	193173
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	2/5/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/5/2024	BCW-202402-20	N/A	19.82	N/A	N/A	193210
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	2/5/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/5/2024	BCW-202402-21	N/A	23.94	N/A	N/A	193227
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	2/5/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/5/2024	BCW-202402-22	N/A	23.70	N/A	N/A	193232
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	2/5/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/5/2024	BCW-202402-23	N/A	19.05	N/A	N/A	193230
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	2/5/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/5/2024	BCW-202402-24	N/A	21.33	N/A	N/A	193238
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	2/5/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/5/2024	BCW-202402-25	N/A	23.05	N/A	N/A	193228
D31084AZ	Soil NTCRA	BCW	Truck	63	9/15/2023	51242315251	GWP	2/5/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/5/2024	BCW-202402-26	N/A	20.77	N/A	N/A	193240
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	2/5/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/6/2024	BCW-202402-27	N/A	21.70	N/A	N/A	193269
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	2/5/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/6/2024	BCW-202402-28	N/A	21.94	N/A	N/A	193267
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	2/5/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/6/2024	BCW-202402-29	N/A	23.15	N/A	N/A	193264
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	2/5/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/6/2024	BCW-202402-30	N/A	18.66	N/A	N/A	193266
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	2/5/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/6/2024	BCW-202402-31	N/A	22.83	N/A</		

Table H-1. Nonhazardous Waste Tracking Log
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

Project #	Task Name	Site or Task Description	Container Type	Bin ID (Truck #)	Accumulation Start Date	Waste Profile	Transporter	Date Transported	Transporter DOT # and EPA ID	Disposal Facility	Disposal Facility State ID or EPA ID	Matrix	Waste Type (Haz, Nonhaz, TSCA)	Waste Code (RCRA then State)	Disposal Facility Date (found on final manifest)	Manifest #	Incineration	Landfill (tons)	Recycle	Onsite	Comments/Notes
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	2/6/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/7/2024	BCW-202402-44	N/A	21.83	N/A	N/A	193381
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	2/6/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/7/2024	BCW-202402-45	N/A	20.28	N/A	N/A	193378
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	2/6/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/7/2024	BCW-202402-46	N/A	19.13	N/A	N/A	193377
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	2/6/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/7/2024	BCW-202402-47	N/A	22.89	N/A	N/A	193376
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	2/6/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/7/2024	BCW-202402-48	N/A	20.34	N/A	N/A	193382
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	2/6/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/7/2024	BCW-202402-49	N/A	22.20	N/A	N/A	193380
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	2/6/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/7/2024	BCW-202402-50	N/A	20.17	N/A	N/A	193384
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	2/6/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/7/2024	BCW-202402-51	N/A	14.41	N/A	N/A	193383
D31084AZ	Soil NTCRA	BCW	Truck	63	9/15/2023	51242315251	GWP	2/6/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/7/2024	BCW-202402-52	N/A	19.94	N/A	N/A	193393
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	2/7/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/7/2024	BCW-202402-53	N/A	19.90	N/A	N/A	193429
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	2/7/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/7/2024	BCW-202402-54	N/A	21.86	N/A	N/A	193424
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	2/7/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/7/2024	BCW-202402-55	N/A	18.65	N/A	N/A	193431
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	2/7/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/7/2024	BCW-202402-56	N/A	21.55	N/A	N/A	193426
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	2/7/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/7/2024	BCW-202402-57	N/A	20.32	N/A	N/A	193436
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	2/7/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/7/2024	BCW-202402-58	N/A	20.21	N/A	N/A	193445
D31084AZ	Soil NTCRA	BCW	Truck	63	9/15/2023	51242315251	GWP	2/7/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/7/2024	BCW-202402-59	N/A	20.14	N/A	N/A	193447
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	2/7/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/7/2024	BCW-202402-60	N/A	21.86	N/A	N/A	193444
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	2/7/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/7/2024	BCW-202402-61	N/A	13.92	N/A	N/A	193449
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	2/7/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/8/2024	BCW-202402-62	N/A	20.98	N/A	N/A	193466
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	2/7/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/8/2024	BCW-202402-63	N/A	18.67	N/A	N/A	193467
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	2/7/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/8/2024	BCW-202402-64	N/A	18.69	N/A	N/A	193464
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	2/7/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/8/2024	BCW-202402-65	N/A	21.82	N/A	N/A	193465
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	2/7/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/8/2024	BCW-202402-66	N/A	18.43	N/A	N/A	193464
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	2/7/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/8/2024	BCW-202402-68	N/A	19.58	N/A	N/A	193469
D31084AZ	Soil NTCRA	BCW	Truck	77	9/15/2023	51242315251	GWP	2/7/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/8/2024	BCW-202402-69	N/A	15.12	N/A	N/A	193476
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	2/7/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/8/2024	BCW-202402-70	N/A	14.53	N/A	N/A	193470
D31084AZ	Soil NTCRA	BCW	Truck	78	9/15/2023	51242315251	GWP	2/7/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/8/2024	BCW-202402-71	N/A	14.82	N/A	N/A	193487
D31084AZ	Soil NTCRA	BCW	Truck	63	9/15/2023	51242315251	GWP	2/7/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/8/2024	BCW-202402-72	N/A	18.79	N/A	N/A	193479
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	2/8/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/8/2024	BCW-202402-73	N/A	18.55	N/A	N/A	193512
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	2/8/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/8/2024	BCW-202402-74	N/A	21.27	N/A	N/A	193521
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	2/8/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/8/2024	BCW-202402-75	N/A	20.93	N/A	N/A	193523
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	2/8/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/8/2024	BCW-202402-76	N/A	19.30	N/A	N/A	193525
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	2/8/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/8/2024	BCW-202402-77	N/A	14.18	N/A	N/A	193530
D31084AZ	Soil NTCRA	BCW	Truck	77	9/15/2023	51242315251	GWP	2/8/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/8/2024	BCW-202402-78	N/A	14.44	N/A	N/A	193519
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	2/8/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/8/2024	BCW-202402-79	N/A	18.37	N/A	N/A	193531
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	2/8/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/8/2024	BCW-202402-80	N/A	19.03	N/A	N/A	193534
D31084AZ	Soil NTCRA	BCW	Truck	78	9/15/2023	51242315251	GWP	2/8/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/8/2024	BCW-202402-81	N/A	14.29	N/A	N/A	193539
D31084AZ	Soil NTCRA	BCW	Truck	63	9/15/2023	51242315251	GWP	2/8/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/8/2024	BCW-202402-82	N/A	20.67	N/A	N/A	193546
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	2/9/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/9/2024	BCW-202402-102	N/A	22.54	N/A	N/A	193643
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	2/7/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/9/2024	BCW-202402-67	N/A	20.55	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	77	9/15/2023	51242315251	GWP	2/8/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/9/2024	BCW-202402-83	N/A	14.29	N/A	N/A	193576
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	2/8/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/9/2024	BCW-202402-84	N/A	19.76	N/A	N/A	193570
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	2/8/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/9/2024	BCW-202402-85	N/A	22.01	N/A	N/A	193572
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	2/8/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/9/2024	BCW-202402-86	N/A	18.87	N/A	N/A	193568
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	2/8/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/9/2024	BCW-202402-87	N/A	18.60	N/A	N/A	193567
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	2/8/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/9/2024	BCW-202402-88	N/A	14.75	N/A	N/A	193571
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	2/8/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/9/2024	BCW-202402-89	N/A	18.79	N/A	N/A	193569
D31084AZ	Soil NTCRA	BCW	Truck	78	9/15/2023	51242315251	GWP	2/9/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/9/2024	BCW-202402-91	N/A	14.08	N/A	N/A	193600
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	2/9/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/9/2024	BCW-202402-92	N/A	21.61	N/A	N/A	193613
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	2/9/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/9/2024	BCW-202402-93	N/A	17.63	N/A	N/A	193620
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	2/9/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/9/2024	BCW-202402-94	N/A	20.25	N/A	N/A	193619
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	2/9/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/9/2024	BCW-202402-95	N/A	21.98	N/A	N/A	193621
D31084AZ	Soil NTCRA	BCW	Truck	77	9/15/2023	51242315251	GWP	2/9/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/9/2024	BCW-202402-96	N/A	15.13	N/A	N/A	193616
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	2/9/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/9/2024	BCW-202402-97	N/A	14.95	N/A	N/A	193625
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	2/9/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/9/2024	BCW-202402-98	N/A	22.78	N/A	N/A	193624
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	2/9/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/9/2024	BCW-202402-99	N/A	20.30	N/A	N/A	193626
D31084AZ	Soil NTCRA	BCW	Truck	78	9/15/2																

Table H-1. Nonhazardous Waste Tracking Log
Soil NTCRA Completion Report
Topock Compressor Station, Needles, California

Project #	Task Name	Site or Task Description	Container Type	Bin ID (Truck #)	Accumulation Start Date	Waste Profile	Transporter	Date Transported	Transporter DOT # and EPA ID	Disposal Facility	Disposal Facility State ID or EPA ID	Matrix	Waste Type (Haz, Nonhaz, TSCA)	Waste Code (RCRA then State)	Disposal Date (found on final manifest)	Manifest #	Incineration	Landfill (tons)	Recycle	Onsite	Comments/Notes
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	2/10/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/12/2024	BCW-202402-117	N/A	22.35	N/A	N/A	193664
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	2/10/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/12/2024	BCW-202402-118	N/A	19.04	N/A	N/A	193666
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	2/10/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/12/2024	BCW-202402-119	N/A	22.79	N/A	N/A	193665
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	2/10/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/12/2024	BCW-202402-120	N/A	20.39	N/A	N/A	193670
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	2/10/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/12/2024	BCW-202402-121	N/A	14.62	N/A	N/A	193689
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	2/10/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/12/2024	BCW-202402-122	N/A	21.45	N/A	N/A	193669
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	2/10/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/12/2024	BCW-202402-123	N/A	20.20	N/A	N/A	193672
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	2/12/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/12/2024	BCW-202402-124	N/A	21.97	N/A	N/A	193716
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	2/12/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/12/2024	BCW-202402-125	N/A	22.43	N/A	N/A	193725
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	2/12/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/12/2024	BCW-202402-126	N/A	23.46	N/A	N/A	193722
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	2/12/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/12/2024	BCW-202402-127	N/A	18.77	N/A	N/A	193729
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	2/12/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/12/2024	BCW-202402-128	N/A	20.36	N/A	N/A	193730
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	2/12/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/12/2024	BCW-202402-129	N/A	14.62	N/A	N/A	193736
D31084AZ	Soil NTCRA	BCW	Truck	63	9/15/2023	51242315251	GWP	2/12/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/12/2024	BCW-202402-130	N/A	20.96	N/A	N/A	193739
D31084AZ	Soil NTCRA	BCW	Truck	63	9/15/2023	51242315251	GWP	2/8/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/12/2024	BCW-202402-90	N/A	20.49	N/A	N/A	193687
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	2/12/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/13/2024	BCW-202402-131	N/A	22.56	N/A	N/A	193765
D31084AZ	Soil NTCRA	BCW	Truck	78	9/15/2023	51242315251	GWP	2/12/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/13/2024	BCW-202402-132	N/A	14.79	N/A	N/A	193781
D31084AZ	Soil NTCRA	BCW	Truck	80	9/15/2023	51242315251	GWP	2/12/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/13/2024	BCW-202402-133	N/A	14.79	N/A	N/A	193794
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	2/12/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/13/2024	BCW-202402-134	N/A	22.59	N/A	N/A	193769
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	2/12/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/13/2024	BCW-202402-135	N/A	18.16	N/A	N/A	193767
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	2/12/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/13/2024	BCW-202402-136	N/A	23.44	N/A	N/A	193766
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	2/12/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/13/2024	BCW-202402-137	N/A	19.57	N/A	N/A	193783
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	2/12/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/13/2024	BCW-202402-138	N/A	14.71	N/A	N/A	193770
D31084AZ	Soil NTCRA	BCW	Truck	63	9/15/2023	51242315251	GWP	2/12/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/13/2024	BCW-202402-139	N/A	20.86	N/A	N/A	193784
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	2/13/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/13/2024	BCW-202402-140	N/A	20.33	N/A	N/A	193826
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	2/13/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/13/2024	BCW-202402-141	N/A	15.30	N/A	N/A	193830
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	2/13/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/13/2024	BCW-202402-142	N/A	17.55	N/A	N/A	193835
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	2/13/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/13/2024	BCW-202402-143	N/A	22.97	N/A	N/A	193832
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	2/13/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/13/2024	BCW-202402-145	N/A	20.22	N/A	N/A	193838
D31084AZ	Soil NTCRA	BCW	Truck	63	9/15/2023	51242315251	GWP	2/13/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/13/2024	BCW-202402-146	N/A	20.64	N/A	N/A	193848
D31084AZ	Soil NTCRA	BCW	Truck	80	9/15/2023	51242315251	GWP	2/13/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/13/2024	BCW-202402-147	N/A	14.25	N/A	N/A	193859
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	2/13/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/14/2024	BCW-202402-144	N/A	22.59	N/A	N/A	193878
D31084AZ	Soil NTCRA	BCW	Truck	77	9/15/2023	51242315251	GWP	2/13/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/14/2024	BCW-202402-149	N/A	15.12	N/A	N/A	193900
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	2/13/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/14/2024	BCW-202402-150	N/A	23.17	N/A	N/A	193879
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	2/13/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/14/2024	BCW-202402-151	N/A	14.02	N/A	N/A	193885
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	2/13/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/14/2024	BCW-202402-152	N/A	18.64	N/A	N/A	193881
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	2/13/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/14/2024	BCW-202402-153	N/A	18.84	N/A	N/A	193882
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	2/13/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/14/2024	BCW-202402-154	N/A	22.15	N/A	N/A	193884
D31084AZ	Soil NTCRA	BCW	Truck	63	9/15/2023	51242315251	GWP	2/13/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/14/2024	BCW-202402-155	N/A	20.31	N/A	N/A	193896
D31084AZ	Soil NTCRA	BCW	Truck	80	9/15/2023	51242315251	GWP	2/14/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/14/2024	BCW-202402-156	N/A	14.01	N/A	N/A	193911
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	2/14/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/14/2024	BCW-202402-157	N/A	22.84	N/A	N/A	193930
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	2/14/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/14/2024	BCW-202402-158	N/A	23.72	N/A	N/A	193932
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	2/14/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/14/2024	BCW-202402-159	N/A	18.38	N/A	N/A	193933
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	2/14/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/14/2024	BCW-202402-160	N/A	20.08	N/A	N/A	193934
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	2/14/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/14/2024	BCW-202402-161	N/A	15.12	N/A	N/A	193936
D31084AZ	Soil NTCRA	BCW	Truck	63	9/15/2023	51242315251	GWP	2/14/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/14/2024	BCW-202402-162	N/A	20.40	N/A	N/A	193954
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	2/14/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/14/2024	BCW-202402-163	N/A	23.61	N/A	N/A	193950
D31084AZ	Soil NTCRA	BCW	Truck	80	9/15/2023	51242315251	GWP	2/14/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/14/2024	BCW-202402-165	N/A	14.62	N/A	N/A	193958
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	2/13/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/15/2024	BCW-202402-148	N/A	19.76	N/A	N/A	193981
D31084AZ	Soil NTCRA	BCW	Truck	78	9/15/2023	51242315251	GWP	2/14/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/15/2024	BCW-202402-164	N/A	15.31	N/A	N/A	193991
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	2/14/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/15/2024	BCW-202402-166	N/A	22.52	N/A	N/A	193984
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	2/14/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/15/2024	BCW-202402-167	N/A	18.07	N/A	N/A	193979
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	2/14/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/15/2024	BCW-202402-168	N/A	22.31	N/A	N/A	193977
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	2/14/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/15/2024	BCW-202402-169	N/A	19.68	N/A	N/A	193978
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	2/14/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/15/2024	BCW-202402-170	N/A	15.48	N/A	N/A	193985
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	2/14/2024	N/A												

Table H-1. Nonhazardous Waste Tracking Log
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

Project #	Task Name	Site or Task Description	Container Type	Bin ID (Truck #)	Accumulation Start Date	Waste Profile	Transporter	Date Transported	Transporter DOT # and EPA ID	Disposal Facility	Disposal Facility State ID or EPA ID	Matrix	Waste Type (Haz, Nonhaz, TSCA)	Waste Code (RCRA then State)	Disposal Date (found on final manifest)	Manifest #	Incineration	Landfill (tons)	Recycle	Onsite	Comments/Notes
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	2/16/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/16/2024	BCW-202402-188	N/A	22.93	N/A	N/A	194128
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	2/16/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/16/2024	BCW-202402-189	N/A	20.37	N/A	N/A	194134
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	2/16/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/16/2024	BCW-202402-190	N/A	14.76	N/A	N/A	194131
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	2/16/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/16/2024	BCW-202402-191	N/A	21.44	N/A	N/A	194132
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	2/16/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/16/2024	BCW-202402-192	N/A	24.14	N/A	N/A	194129
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	2/16/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/16/2024	BCW-202402-193	N/A	24.45	N/A	N/A	194146
D31084AZ	Soil NTCRA	BCW	Truck	80	9/15/2023	51242315251	GWP	2/16/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/16/2024	BCW-202402-194	N/A	10.96	N/A	N/A	194147
D31084AZ	Soil NTCRA	BCW	Truck	63	9/15/2023	51242315251	GWP	2/16/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/16/2024	BCW-202402-196	N/A	18.42	N/A	N/A	194149
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	2/16/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/19/2024	BCW-202402-195	N/A	16.59	N/A	N/A	194161
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	2/16/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/19/2024	BCW-202402-197	N/A	18.94	N/A	N/A	194160
D31084AZ	Soil NTCRA	BCW	Truck	61	9/15/2023	51242315251	GWP	2/16/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/19/2024	BCW-202402-198	N/A	20.33	N/A	N/A	194159
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	2/16/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/19/2024	BCW-202402-199	N/A	14.04	N/A	N/A	194162
D31084AZ	Soil NTCRA	BCW	Truck	63	9/15/2023	51242315251	GWP	2/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/19/2024	BCW-202402-200	N/A	20.06	N/A	N/A	194191
D31084AZ	Soil NTCRA	BCW	Truck	80	9/15/2023	51242315251	GWP	2/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/19/2024	BCW-202402-201	N/A	14.27	N/A	N/A	194186
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	2/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/19/2024	BCW-202402-202	N/A	21.73	N/A	N/A	194187
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	2/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/19/2024	BCW-202402-203	N/A	22.47	N/A	N/A	194189
D31084AZ	Soil NTCRA	BCW	Truck	77	9/15/2023	51242315251	GWP	2/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/19/2024	BCW-202402-204	N/A	14.28	N/A	N/A	194194
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	2/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/19/2024	BCW-202402-205	N/A	23.38	N/A	N/A	194201
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	2/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/19/2024	BCW-202402-206	N/A	20.04	N/A	N/A	194210
D31084AZ	Soil NTCRA	BCW	Truck	61	9/15/2023	51242315251	GWP	2/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/19/2024	BCW-202402-207	N/A	18.75	N/A	N/A	194214
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	2/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/19/2024	BCW-202402-208	N/A	18.22	N/A	N/A	194215
D31084AZ	Soil NTCRA	BCW	Truck	80	9/15/2023	51242315251	GWP	2/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/19/2024	BCW-202402-209	N/A	14.86	N/A	N/A	194231
D31084AZ	Soil NTCRA	BCW	Truck	63	9/15/2023	51242315251	GWP	2/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/19/2024	BCW-202402-212	N/A	20.37	N/A	N/A	194242
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	2/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/20/2024	BCW-202402-210	N/A	21.38	N/A	N/A	194250
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	2/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/20/2024	BCW-202402-211	N/A	22.30	N/A	N/A	194253
D31084AZ	Soil NTCRA	BCW	Truck	77	9/15/2023	51242315251	GWP	2/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/20/2024	BCW-202402-213	N/A	14.93	N/A	N/A	194256
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	2/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/20/2024	BCW-202402-214	N/A	14.46	N/A	N/A	194255
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	2/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/20/2024	BCW-202402-215	N/A	22.38	N/A	N/A	194254
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	2/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/20/2024	BCW-202402-216	N/A	20.01	N/A	N/A	194260
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	2/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/20/2024	BCW-202402-217	N/A	18.11	N/A	N/A	194252
D31084AZ	Soil NTCRA	BCW	Truck	61	9/15/2023	51242315251	GWP	2/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/20/2024	BCW-202402-218	N/A	18.89	N/A	N/A	194251
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	2/20/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/20/2024	BCW-202402-219	N/A	21.96	N/A	N/A	194298
D31084AZ	Soil NTCRA	BCW	Truck	63	9/15/2023	51242315251	GWP	2/20/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/20/2024	BCW-202402-220	N/A	20.37	N/A	N/A	194278
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	2/20/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/20/2024	BCW-202402-221	N/A	20.86	N/A	N/A	194307
D31084AZ	Soil NTCRA	BCW	Truck	80	9/15/2023	51242315251	GWP	2/20/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/20/2024	BCW-202402-222	N/A	14.71	N/A	N/A	194274
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	2/20/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/20/2024	BCW-202402-223	N/A	17.38	N/A	N/A	194305
D31084AZ	Soil NTCRA	BCW	Truck	61	9/15/2023	51242315251	GWP	2/20/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/20/2024	BCW-202402-224	N/A	18.92	N/A	N/A	194306
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	2/20/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/20/2024	BCW-202402-225	N/A	21.57	N/A	N/A	194311
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	2/20/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/20/2024	BCW-202402-226	N/A	21.98	N/A	N/A	194310
D31084AZ	Soil NTCRA	BCW	Truck	63	9/15/2023	51242315251	GWP	2/20/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/20/2024	BCW-202402-229	N/A	19.56	N/A	N/A	194341
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	2/20/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/21/2024	BCW-202402-227	N/A	15.40	N/A	N/A	194351
D31084AZ	Soil NTCRA	BCW	Truck	77	9/15/2023	51242315251	GWP	2/20/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/21/2024	BCW-202402-228	N/A	14.84	N/A	N/A	194355
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	2/20/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/21/2024	BCW-202402-230	N/A	22.49	N/A	N/A	194358
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	2/20/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/21/2024	BCW-202402-231	N/A	21.63	N/A	N/A	194354
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	2/20/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/21/2024	BCW-202402-232	N/A	21.72	N/A	N/A	194353
D31084AZ	Soil NTCRA	BCW	Truck	61	9/15/2023	51242315251	GWP	2/20/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/21/2024	BCW-202402-233	N/A	18.80	N/A	N/A	194352
D31084AZ	Soil NTCRA	BCW	Truck	78	9/15/2023	51242315251	GWP	2/20/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/21/2024	BCW-202402-234	N/A	15.15	N/A	N/A	194350
D31084AZ	Soil NTCRA	BCW	Truck	63	9/15/2023	51242315251	GWP	2/21/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/21/2024	BCW-202402-235	N/A	19.76	N/A	N/A	194388
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	2/21/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/21/2024	BCW-202402-236	N/A	22.14	N/A	N/A	194390
D31084AZ	Soil NTCRA	BCW	Truck	61	9/15/2023	51242315251	GWP	2/21/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/21/2024	BCW-202402-237	N/A	18.55	N/A	N/A	194410
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	2/21/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/21/2024	BCW-202402-238	N/A	14.50	N/A	N/A	194411
D31084AZ	Soil NTCRA	BCW	Truck	77	9/15/2023	51242315251	GWP	2/21/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/21/2024	BCW-202402-239	N/A	14.72	N/A	N/A	194421
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	2/21/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/21/2024	BCW-202402-240	N/A	21.88	N/A	N/A	194416
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	2/21/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/22/2024	BCW-202402-241	N/A	21.87	N/A	N/A	194461
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	2/21/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/22/2024	BCW-202402-242	N/A	22.71	N/A	N/A	194458
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	2/21/2024	N												

Table H-1. Nonhazardous Waste Tracking Log
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

Project #	Task Name	Site or Task Description	Container Type	Bin ID (Truck #)	Accumulation Start Date	Waste Profile	Transporter	Date Transported	Transporter DOT # and EPA ID	Disposal Facility	Disposal Facility State ID or EPA ID	Matrix	Waste Type (Haz, Nonhaz, TSCA)	Waste Code (RCRA then State)	Disposal Date (found on final manifest)	Manifest #	Incineration	Landfill (tons)	Recycle	Onsite	Comments/Notes
D31084AZ	Soil NTCRA	BCW	Truck	61	9/15/2023	51242315251	GWP	2/22/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/23/2024	BCW-202402-260	N/A	18.74	N/A	N/A	194544
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	2/22/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/23/2024	BCW-202402-261	N/A	21.73	N/A	N/A	194550
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	2/22/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/23/2024	BCW-202402-262	N/A	14.89	N/A	N/A	194545
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	2/22/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/23/2024	BCW-202402-263	N/A	18.29	N/A	N/A	194549
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	2/22/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/23/2024	BCW-202402-264	N/A	19.40	N/A	N/A	194556
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	2/23/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/26/2024	BCW-202402-265	N/A	21.72	N/A	N/A	194625
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	2/26/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/26/2024	BCW-202402-266	N/A	18.49	N/A	N/A	194661
D31084AZ	Soil NTCRA	BCW	Truck	61	9/15/2023	51242315251	GWP	2/26/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/26/2024	BCW-202402-267	N/A	18.25	N/A	N/A	194662
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	2/26/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/26/2024	BCW-202402-268	N/A	21.22	N/A	N/A	194663
D31084AZ	Soil NTCRA	BCW	Truck	77	9/15/2023	51242315251	GWP	2/26/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/26/2024	BCW-202402-269	N/A	14.37	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	2/26/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/26/2024	BCW-202402-270	N/A	14.28	N/A	N/A	194666
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	2/26/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/26/2024	BCW-202402-271	N/A	17.01	N/A	N/A	194664
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	2/26/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/26/2024	BCW-202402-272	N/A	21.10	N/A	N/A	194668
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	2/26/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/26/2024	BCW-202402-273	N/A	22.17	N/A	N/A	194695
D31084AZ	Soil NTCRA	BCW	Truck	78	9/15/2023	51242315251	GWP	2/26/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/26/2024	BCW-202402-274	N/A	14.72	N/A	N/A	194689
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	2/26/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/26/2024	BCW-202402-275	N/A	19.09	N/A	N/A	194710
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	2/26/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/27/2024	BCW-202402-276	N/A	14.51	N/A	N/A	194723
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	2/26/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/27/2024	BCW-202402-277	N/A	17.63	N/A	N/A	194722
D31084AZ	Soil NTCRA	BCW	Truck	61	9/15/2023	51242315251	GWP	2/26/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/27/2024	BCW-202402-278	N/A	18.65	N/A	N/A	194721
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	2/26/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/27/2024	BCW-202402-279	N/A	20.76	N/A	N/A	194724
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	2/26/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/27/2024	BCW-202402-280	N/A	21.92	N/A	N/A	194725
D31084AZ	Soil NTCRA	BCW	Truck	78	9/15/2023	51242315251	GWP	2/26/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/27/2024	BCW-202402-281	N/A	14.74	N/A	N/A	194720
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	2/26/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/27/2024	BCW-202402-282	N/A	22.08	N/A	N/A	194719
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	2/27/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/27/2024	BCW-202402-283	N/A	19.07	N/A	N/A	194755
D31084AZ	Soil NTCRA	BCW	Truck	78	9/15/2023	51242315251	GWP	2/27/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/27/2024	BCW-202402-285	N/A	15.09	N/A	N/A	194772
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	2/27/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/27/2024	BCW-202402-286	N/A	17.79	N/A	N/A	194780
D31084AZ	Soil NTCRA	BCW	Truck	61	9/15/2023	51242315251	GWP	2/27/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/27/2024	BCW-202402-287	N/A	18.82	N/A	N/A	194778
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	2/27/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/27/2024	BCW-202402-288	N/A	22.02	N/A	N/A	194775
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	2/27/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/27/2024	BCW-202402-289	N/A	14.77	N/A	N/A	194779
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	2/27/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/28/2024	BCW-202402-284	N/A	21.16	N/A	N/A	194808
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	2/27/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/28/2024	BCW-202402-290	N/A	19.37	N/A	N/A	194813
D31084AZ	Soil NTCRA	BCW	Truck	78	9/15/2023	51242315251	GWP	2/27/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/28/2024	BCW-202402-291	N/A	15.16	N/A	N/A	194809
D31084AZ	Soil NTCRA	BCW	Truck	61	9/15/2023	51242315251	GWP	2/27/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/28/2024	BCW-202402-292	N/A	18.20	N/A	N/A	194810
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	2/27/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/28/2024	BCW-202402-293	N/A	14.98	N/A	N/A	194814
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	2/27/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/28/2024	BCW-202402-294	N/A	16.99	N/A	N/A	194811
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	2/28/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/28/2024	BCW-202402-295	N/A	17.30	N/A	N/A	194854
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	2/28/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/28/2024	BCW-202402-296	N/A	22.09	N/A	N/A	194858
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	2/28/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/28/2024	BCW-202402-297	N/A	17.56	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	78	9/15/2023	51242315251	GWP	2/28/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/28/2024	BCW-202402-298	N/A	15.48	N/A	N/A	194869
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	2/28/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/28/2024	BCW-202402-299	N/A	17.93	N/A	N/A	194872
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	2/28/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/28/2024	BCW-202402-300	N/A	15.22	N/A	N/A	194873
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	2/29/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/29/2024	BCW-202402-301	N/A	19.53	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	2/29/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/29/2024	BCW-202402-302	N/A	19.56	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	61	9/15/2023	51242315251	GWP	2/29/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/29/2024	BCW-202402-303	N/A	18.59	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	2/29/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/29/2024	BCW-202402-304	N/A	21.97	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	78	9/15/2023	51242315251	GWP	2/29/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/29/2024	BCW-202402-305	N/A	14.80	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	2/29/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/29/2024	BCW-202402-307	N/A	21.43	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	2/29/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/29/2024	BCW-202402-308	N/A	17.45	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	2/29/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/29/2024	BCW-202402-309	N/A	21.37	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	2/29/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/29/2024	BCW-202402-310	N/A	17.23	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	78	9/15/2023	51242315251	GWP	2/29/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/29/2024	BCW-202402-311	N/A	15.35	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	51242315251	GWP	2/29/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/29/2024	BCW-202402-312	N/A	21.62	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	61	9/15/2023	51242315251	GWP	2/29/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/29/2024	BCW-202402-313	N/A	18.57	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	2/29/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/29/2024	BCW-202402-314	N/A	17.54	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	2/29/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/29/2024	BCW-202402-315	N/A	21.68	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	2/29/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	2/29/2024	BCW-202402-316	N/A	22.25	N/A	N/A	

Table H-1. Nonhazardous Waste Tracking Log
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

Project #	Task Name	Site or Task Description	Container Type	Bin ID (Truck #)	Accumulation Start Date	Waste Profile	Transporter	Date Transported	Transporter DOT # and EPA ID	Disposal Facility	Disposal Facility State ID or EPA ID	Matrix	Waste Type (Haz, Nonhaz, TSCA)	Waste Code (RCRA then State)	Disposal Facility Date (found on final manifest)	Manifest #	Incineration	Landfill (tons)	Recycle	Onsite	Comments/Notes
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	3/14/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/14/2024	BCW-202403-149	N/A	19.24	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	3/14/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/14/2024	BCW-202403-150	N/A	22.32	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	3/14/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/14/2024	BCW-202403-151	N/A	17.38	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	61	9/15/2023	51242315251	GWP	3/14/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/14/2024	BCW-202403-152	N/A	18.83	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	3/14/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/14/2024	BCW-202403-153	N/A	19.36	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	3/14/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/14/2024	BCW-202403-154	N/A	14.84	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	3/14/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/14/2024	BCW-202403-155	N/A	19.70	N/A	N/A	
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	57	2/13/2024	5124243389	GWP	3/14/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/14/2024	AOC14-202403-03	N/A	18.48	N/A	N/A	
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	53	2/13/2024	5124243389	GWP	3/14/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/14/2024	AOC14-202403-02	N/A	22.15	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	3/15/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/15/2024	BCW-202403-156	N/A	16.42	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	61	9/15/2023	51242315251	GWP	3/15/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/15/2024	BCW-202403-157	N/A	18.40	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	3/15/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/15/2024	BCW-202403-158	N/A	19.19	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	3/15/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/15/2024	BCW-202403-159	N/A	19.48	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	3/15/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/15/2024	BCW-202403-160	N/A	18.97	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	78	9/15/2023	51242315251	GWP	3/15/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/15/2024	BCW-202403-161	N/A	13.90	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	3/15/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/15/2024	BCW-202403-162	N/A	19.34	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	3/15/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/15/2024	BCW-202403-163	N/A	22.58	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	78	9/15/2023	51242315251	GWP	3/15/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/15/2024	BCW-202403-164	N/A	13.54	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	61	9/15/2023	51242315251	GWP	3/15/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/15/2024	BCW-202403-165	N/A	18.11	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	3/15/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/15/2024	BCW-202403-166	N/A	19.31	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	3/15/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/15/2024	BCW-202403-167	N/A	18.82	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	3/15/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/15/2024	BCW-202403-168	N/A	17.91	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	3/15/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/15/2024	BCW-202403-169	N/A	19.89	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	3/15/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/15/2024	BCW-202403-170	N/A	19.96	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	3/15/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/15/2024	BCW-202403-171	N/A	19.89	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	80	9/15/2023	51242315251	GWP	3/15/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/15/2024	BCW-202403-172	N/A	13.57	N/A	N/A	
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	53	2/13/2024	5124243389	GWP	3/15/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/15/2024	AOC14-202403-04	N/A	20.77	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	61	9/15/2023	51242315251	GWP	3/18/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/18/2024	BCW-202403-174	N/A	18.88	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	3/18/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/18/2024	BCW-202403-175	N/A	19.80	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	3/18/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/18/2024	BCW-202403-176	N/A	19.93	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	3/18/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/18/2024	BCW-202403-177	N/A	17.87	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	61	9/15/2023	51242315251	GWP	3/18/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/18/2024	BCW-202403-178	N/A	19.04	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	3/18/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/18/2024	BCW-202403-179	N/A	19.54	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	3/18/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/18/2024	BCW-202403-180	N/A	20.17	N/A	N/A	
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	53	2/13/2024	5124243389	GWP	3/18/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/18/2024	AOC14-202403-06	N/A	15.22	N/A	N/A	
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	53	2/13/2024	5124243389	GWP	3/18/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/18/2024	AOC14-202403-07	N/A	21.89	N/A	N/A	
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	53	2/13/2024	5124243389	GWP	3/18/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/18/2024	AOC14-202403-05	N/A	22.10	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	3/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/19/2024	BCW-202403-181	N/A	17.69	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	3/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/19/2024	BCW-202403-182	N/A	19.92	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	3/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/19/2024	BCW-202403-183	N/A	19.28	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	3/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/19/2024	BCW-202403-184	N/A	13.95	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	3/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/19/2024	BCW-202403-185	N/A	18.74	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	3/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/19/2024	BCW-202403-186	N/A	20.80	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	3/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/19/2024	BCW-202403-187	N/A	18.93	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	3/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/19/2024	BCW-202403-188	N/A	17.98	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	79	9/15/2023	51242315251	GWP	3/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/19/2024	BCW-202403-189	N/A	13.85	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	3/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/19/2024	BCW-202403-190	N/A	18.68	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	80	9/15/2023	51242315251	GWP	3/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/19/2024	BCW-202403-191	N/A	13.45	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	5124243389	GWP	3/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/19/2024	AOC14-202403-09	N/A	22.49	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	53	9/15/2023	5124243389	GWP	3/19/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/19/2024	AOC14-202403-08	N/A	22.96	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	52	9/15/2023	51242315251	GWP	3/20/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/20/2024	BCW-202403-192	N/A	18.01	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	62	9/15/2023	51242315251	GWP	3/20/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/20/2024	BCW-202403-193	N/A	16.61	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	60	9/15/2023	51242315251	GWP	3/20/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/20/2024	BCW-202403-194	N/A	19.53	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	57	9/15/2023	51242315251	GWP	3/20/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/20/2024	BCW-202403-195	N/A	19.80	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	59	9/15/2023	51242315251	GWP	3/20/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/20/2024	BCW-202403-196	N/A	20.01	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	58	9/15/2023	51242315251	GWP	3/20/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/20/2024	BCW-202403-197	N/A	22.43	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	80	9/15/2023	51242315251	GWP	3/20/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	3/20/2024	BCW-202403-198	N/A	13.84	N/A	N/A	
D31084AZ	Soil NTCRA	BCW	Truck	52																	

Table H-1. Nonhazardous Waste Tracking Log
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

Project #	Task Name	Site or Task Description	Container Type	Bin ID (Truck #)	Accumulation Start Date	Waste Profile	Transporter	Date Transported	Transporter DOT # and EPA ID	Disposal Facility	Disposal Facility State ID or EPA ID	Matrix	Waste Type (Haz, Nonhaz, TSCA)	Waste Code (RCRA then State)	Disposal Facility Date (found on final manifest)	Manifest #	Incineration	Landfill (tons)	Recycle	Onsite	Comments/Notes	
D31084AZ	Soil NTCRA	SPY	Truck	58	3/12/2024	51242315251	GWP	5/1/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/1/2024	BCW-202404-132	N/A	22.96	N/A	N/A	Weight ticket has typo, says BCW-202404-1033	
D31084AZ	Soil NTCRA	SPY	Truck	53	3/12/2024	51242315251	GWP	5/1/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/1/2024	BCW-202404-133	N/A	22.15	N/A	N/A		
D31084AZ	Soil NTCRA	SPY	Truck	62	3/12/2024	51242315251	GWP	5/1/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/1/2024	BCW-202404-134	N/A	17.44	N/A	N/A		
D31084AZ	Soil NTCRA	SPY	Truck	58	3/12/2024	51242315251	GWP	5/1/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/1/2024	BCW-202404-135	N/A	24.11	N/A	N/A		
D31084AZ	Soil NTCRA	SPY	Truck	53	3/12/2024	51242315251	GWP	5/1/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/1/2024	BCW-202404-138	N/A	22.60	N/A	N/A		
D31084AZ	Soil NTCRA	SPY	Truck	58	3/12/2024	51242315251	GWP	5/1/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/1/2024	BCW-202404-139	N/A	23.29	N/A	N/A		
D31084AZ	Soil NTCRA	SPY	Truck	62	3/12/2024	51242315251	GWP	5/1/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/1/2024	BCW-202404-141	N/A	15.14	N/A	N/A		
D31084AZ	Soil NTCRA	SPY	Truck	58	3/12/2024	51242315251	GWP	5/1/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/1/2024	BCW-202404-142	N/A	11.49	N/A	N/A		
D31084AZ	Soil NTCRA	SPY	Truck	58	3/12/2024	51242315251	GWP	5/1/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/1/2024	BCW-202404-143	N/A	9.94	N/A	N/A		
D31084AZ	Soil NTCRA	SPY	Truck	77	3/12/2024	51242315251	GWP	5/1/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/2/2024	BCW-202404-123	N/A	15.81	N/A	N/A		
D31084AZ	Soil NTCRA	SPY	Truck	78	3/12/2024	51242315251	GWP	5/1/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/2/2024	BCW-202404-124	N/A	15.74	N/A	N/A		
D31084AZ	Soil NTCRA	SPY	Truck	57	3/12/2024	51242315251	GWP	5/1/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/2/2024	BCW-202404-125	N/A	21.81	N/A	N/A		
D31084AZ	Soil NTCRA	SPY	Truck	79	3/12/2024	51242315251	GWP	5/1/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/2/2024	BCW-202404-129	N/A	14.00	N/A	N/A		
D31084AZ	Soil NTCRA	SPY	Truck	80	3/12/2024	51242315251	GWP	5/1/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/2/2024	BCW-202404-136	N/A	15.53	N/A	N/A		
D31084AZ	Soil NTCRA	SPY	Truck	59	3/12/2024	51242315251	GWP	5/1/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/2/2024	BCW-202404-137	N/A	20.01	N/A	N/A		
D31084AZ	Soil NTCRA	SPY	Truck	57	3/12/2024	51242315251	GWP	5/1/2024	N/A	La Paz	AZR000520882	Soil	Nonhaz	N/A	5/2/2024	BCW-202404-140	N/A	20.95	N/A	N/A		
																		38423.65				

= number
 AOC = area of concern
 BCW = Bat Cave Wash
 DOT = U.S. Department of Transportation
 EPA = U.S. Environmental Protection Agency
 GWP = Groundwater Partners, Inc.
 Haz = hazardous
 ID = identification
 MPE = MP Environmental Services, Inc.
 N/A = not applicable
 Nonhaz = nonhazardous
 NTCRA = non-time-critical removal action
 RCRA = Resource Conservation and Recovery Act
 SPY = Soil Processing Yard
 SWMU = solid waste management unit
 TAA = target action area
 TSCA = Toxic Substances Control Act

	2022	2023	2024	Total
Nonhaz Tons	2173.14	16111.41	20139.10	38423.65

Table H-2. Hazardous Waste Tracking Log
Soil NTCRA Completion Report
Topock Compressor Station, Needles, California

Project #	Task Name	Site or Task Description	Container Type	Bin ID (Truck #)	Accumulation Start Date	Waste Profile	Transporter	Date Transported	Transporter DOT # and EPA ID	Disposal Facility	Disposal Facility State ID or EPA ID	Matrix	Waste Type (Haz, Nonhaz, TSCA)	Waste Code (RCRA then State)	Disposal Facility Date (found on final manifest)	Manifest #	Incineration	Landfill (tons)	Recycle	Onsite	Comments/Notes
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	789	2/6/2023	5124235371	MPe	4/25/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	4/25/2023	017713876	N/A	16.04	N/A	N/A	Weight Ticket #175072
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	19027	2/6/2023	5124235371	MPe	4/25/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	4/25/2023	017713874	N/A	16.05	N/A	N/A	Weight Ticket #175056
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	19038	2/6/2023	5124235371	MPe	4/25/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	4/25/2023	017713872	N/A	16.92	N/A	N/A	Weight Ticket #175045
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	780	2/6/2023	5124235371	MPe	4/25/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	4/25/2023	017713868	N/A	19.34	N/A	N/A	Weight Ticket #175050
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	784	2/6/2023	5124235371	MPe	4/25/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	4/25/2023	017713870	N/A	25.74	N/A	N/A	Weight Ticket #175035
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	780	2/6/2023	5124235371	MPe	4/25/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	4/25/2023	017713867	N/A	26.52	N/A	N/A	Weight Ticket #175025
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	19038	2/6/2023	5124235371	MPe	4/26/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	4/26/2023	017713873	N/A	20.43	N/A	N/A	Weight Ticket #175122
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	784	2/6/2023	5124235371	MPe	4/26/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	4/26/2023	017713871	N/A	21.55	N/A	N/A	Weight Ticket #175103
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	19027	2/6/2023	5124235371	MPe	4/26/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	4/26/2023	017713875	N/A	22.35	N/A	N/A	Weight Ticket #175134
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	780	2/6/2023	5124235371	MPe	4/26/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	4/26/2023	017713866	N/A	23.22	N/A	N/A	Weight Ticket #175100
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	798	2/6/2023	5124235371	MPe	4/26/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	4/26/2023	017713877	N/A	25.01	N/A	N/A	Weight Ticket #175138
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	16020	2/6/2023	5124235371	MPe	4/26/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	4/26/2023	017713869	N/A	27.83	N/A	N/A	Weight Ticket #175123
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	19027	2/6/2023	5124235371	MPe	4/27/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	4/27/2023	017713887	N/A	15.56	N/A	N/A	Weight Ticket #175206
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	19038	2/6/2023	5124235371	MPe	4/27/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	4/27/2023	017713880	N/A	19.54	N/A	N/A	Weight Ticket #175219. Weight Ticket has incorrect profile #
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	19038	2/6/2023	5124235371	MPe	4/27/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	4/27/2023	017713893	N/A	19.63	N/A	N/A	Weight Ticket #175278
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	789	2/6/2023	5124235371	MPe	4/27/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	4/27/2023	017713888	N/A	19.85	N/A	N/A	Weight Ticket #175211
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	18020	2/6/2023	5124235371	MPe	4/27/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	4/27/2023	017713884	N/A	20.51	N/A	N/A	Weight Ticket #175201
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	19027	2/6/2023	5124235371	MPe	4/27/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	4/27/2023	017713891	N/A	20.96	N/A	N/A	Weight Ticket #175264
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	18020	2/6/2023	5124235371	MPe	4/27/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	4/27/2023	017713890	N/A	21.42	N/A	N/A	Weight Ticket #175263
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	780	2/6/2023	5124235371	MPe	4/27/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	4/27/2023	017713882	N/A	21.93	N/A	N/A	Weight Ticket #175195
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	789	2/6/2023	5124235371	MPe	4/27/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	4/27/2023	017713894	N/A	22.85	N/A	N/A	Weight Ticket #175277
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	784	2/6/2023	5124235371	MPe	4/27/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	4/27/2023	017713892	N/A	22.87	N/A	N/A	Weight Ticket #175255
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	784	2/6/2023	5124235371	MPe	4/27/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	4/27/2023	017713878	N/A	23.35	N/A	N/A	Weight Ticket #175198
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	780	2/6/2023	5124235371	MPe	4/27/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	4/27/2023	017713895	N/A	24.31	N/A	N/A	Weight Ticket #175250
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	19027	2/6/2023	5124235371	MPe	4/28/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	4/28/2023	017713886	N/A	19.87	N/A	N/A	Weight Ticket #175306
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	18020	2/6/2023	5124235371	MPe	4/28/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	4/28/2023	017713885	N/A	21.55	N/A	N/A	Weight Ticket #175300
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	784	2/6/2023	5124235371	MPe	4/28/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	4/28/2023	017713879	N/A	22.81	N/A	N/A	Weight Ticket #175289
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	780	2/6/2023	5124235371	MPe	4/28/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	4/28/2023	017713883	N/A	24.20	N/A	N/A	Weight Ticket #175284
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	789	2/6/2023	5124235371	MPe	5/1/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	5/1/2023	017713889	N/A	19.16	N/A	N/A	Weight Ticket #175424

Table H-2. Hazardous Waste Tracking Log
 Soil NTCRA Completion Report
 Topock Compressor Station, Needles, California

Project #	Task Name	Site or Task Description	Container Type	Bin ID (Truck #)	Accumulation Start Date	Waste Profile	Transporter	Date Transported	Transporter DOT # and EPA ID	Disposal Facility	Disposal Facility State ID or EPA ID	Matrix	Waste Type (Haz, Nonhaz, TSCA)	Waste Code (RCRA then State)	Disposal Facility Date (found on final manifest)	Manifest #	Incineration	Landfill (tons)	Recycle	Onsite	Comments/Notes
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	19027	2/6/2023	5124235371	MPe	5/1/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	5/1/2023	017713904	N/A	20.73	N/A	N/A	Weight Ticket #175421
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	19038	2/6/2023	5124235371	MPe	5/1/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	5/1/2023	017713881	N/A	21.03	N/A	N/A	Weight Ticket #175409
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	780	2/6/2023	5124235371	MPe	5/1/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	5/1/2023	017713896	N/A	22.65	N/A	N/A	Weight Ticket #175398
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	18020	2/6/2023	5124235371	MPe	5/1/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	5/1/2023	017713901	N/A	23.06	N/A	N/A	Weight Ticket #175416
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	784	2/6/2023	5124235371	MPe	5/1/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	5/1/2023	017713898	N/A	23.21	N/A	N/A	Weight Ticket #175401
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	789	2/6/2023	5124235371	MPe	5/2/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	5/2/2023	017713907	N/A	17.62	N/A	N/A	Weight Ticket #175518
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	19038	2/6/2023	5124235371	MPe	5/2/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	5/2/2023	017713902	N/A	19.81	N/A	N/A	Weight Ticket #175512
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	19027	2/6/2023	5124235371	MPe	5/2/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	5/2/2023	017713905	N/A	20.78	N/A	N/A	Weight Ticket #175514
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	18020	2/6/2023	5124235371	MPe	5/2/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	5/2/2023	017713900	N/A	21.63	N/A	N/A	Weight Ticket #175510
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	780	2/6/2023	5124235371	MPe	5/2/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	5/2/2023	017713897	N/A	22.95	N/A	N/A	Weight Ticket #175496
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	780	2/6/2023	5124235371	MPe	5/2/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	5/2/2023	017713908	N/A	23.33	N/A	N/A	Weight Ticket #175543
D31084AZ	Soil NTCRA	AOC14/SPY	Truck	784	2/6/2023	5124235371	MPe	5/2/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	5/2/2023	017713899	N/A	24.73	N/A	N/A	Weight Ticket #175502
D31084AZ	Soil NTCRA	AOC10 TAA1	Rolloff	553	7/26/2023	70334546	MPe	10/16/2023	CAT000624247	US Ecology	NVT330010000	Soil	RCRA haz	D007, 611	10/17/2023	017012490	N/A	8.39	N/A	N/A	
D31084AZ	Soil NTCRA	AOC10 TAA1	Rolloff	554	7/26/2023	51242313985	MPe	10/18/2023	CAT000624247	La Paz	AZC950823111	Soil	NonRCRA haz	611	10/18/2023	017012491	N/A	7.66	N/A	N/A	
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	18015	11/13/2023	51242316379	MPE	11/13/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	11/14/2023	17012717	N/A	22.12	N/A	N/A	Weight Ticket #187859
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	780	11/13/2023	51242316379	MPE	11/13/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	11/14/2023	17012759	N/A	22.07	N/A	N/A	Weight Ticket #187950
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	789	11/13/2023	51242316379	MPE	11/13/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	11/14/2023	17012758	N/A	15.31	N/A	N/A	Weight Ticket #187846
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	780	11/14/2023	51242316379	MPE	11/14/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	11/14/2023	17012741	N/A	22.47	N/A	N/A	Weight Ticket #187902
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	780	11/14/2023	51242316379	MPE	11/14/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	11/14/2023	17012763	N/A	22.12	N/A	N/A	Weight Ticket #187901
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	18015	11/14/2023	51242316379	MPE	11/14/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	11/14/2023	17012739	N/A	21.63	N/A	N/A	Weight Ticket #187908
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	1461258	11/14/2023	51242316379	MPE	11/14/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	11/14/2023	17012761	N/A	20.16	N/A	N/A	Weight Ticket #187894
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	22056	11/14/2023	51242316379	MPE	11/14/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	11/14/2023	17012765	N/A	18.39	N/A	N/A	Weight Ticket #187895
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	18019	11/14/2023	51242316379	MPE	11/14/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	11/14/2023	17012767	N/A	17.84	N/A	N/A	Weight Ticket #187893
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	18019	11/14/2023	51242316379	MPE	11/14/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	11/15/2023	17012743	N/A	19.43	N/A	N/A	Weight Ticket #187951
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	1461258	11/14/2023	51242316379	MPE	11/14/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	11/15/2023	17012745	N/A	19.49	N/A	N/A	Weight Ticket #187952
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	22056	11/14/2023	51242316379	MPE	11/14/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	11/15/2023	17012747	N/A	20.47	N/A	N/A	Weight Ticket #187953
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	1461258	11/15/2023	51242316379	MPE	11/15/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	11/15/2023	17012719	N/A	18.66	N/A	N/A	Weight Ticket #188012
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	22056	11/15/2023	51242316379	MPE	11/15/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	11/15/2023	17012721	N/A	20.23	N/A	N/A	Weight Ticket #188013
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	789	11/15/2023	51242316379	MPE	11/15/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	11/15/2023	17012751	N/A	18.14	N/A	N/A	Weight Ticket #187982
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	18015	11/15/2023	51242316379	MPE	11/15/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	11/15/2023	17012753	N/A	23.77	N/A	N/A	Weight Ticket #187982

Table H-2. Hazardous Waste Tracking Log
Soil NTCRA Completion Report
Topock Compressor Station, Needles, California

Project #	Task Name	Site or Task Description	Container Type	Bin ID (Truck #)	Accumulation Start Date	Waste Profile	Transporter	Date Transported	Transporter DOT # and EPA ID	Disposal Facility	Disposal Facility State ID or EPA ID	Matrix	Waste Type (Haz, Nonhaz, TSCA)	Waste Code (RCRA then State)	Disposal Facility Date (found on final manifest)	Manifest #	Incineration	Landfill (tons)	Recycle	Onsite	Comments/Notes
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	780	11/15/2023	51242316379	MPE	11/15/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	11/15/2023	17012755	N/A	24.32	N/A	N/A	Weight Ticket #187986
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	18015	11/15/2023	51242316379	MPE	11/15/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	11/15/2023	17012757	N/A	18.41	N/A	N/A	Weight Ticket #188011
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	789	11/15/2023	51242316379	MPE	11/15/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	11/16/2023	17012723	N/A	20.52	N/A	N/A	Weight Ticket #188045
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	18015	11/15/2023	51242316379	MPE	11/15/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	11/16/2023	17012725	N/A	21.71	N/A	N/A	Weight Ticket #188044
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	760	11/15/2023	51242316379	MPE	11/15/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	11/16/2023	17012727	N/A	23.16	N/A	N/A	Weight Ticket #188059
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	22056	11/16/2023	51242316379	MPE	11/16/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	11/16/2023	17012749	N/A	18.29	N/A	N/A	Weight Ticket #188102
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	18019	11/16/2023	51242316379	MPE	11/16/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	11/16/2023	17012793	N/A	19.05	N/A	N/A	Weight Ticket #188093
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	1461258	11/16/2023	51242316379	MPE	11/16/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	11/16/2023	17012794	N/A	19.48	N/A	N/A	Weight Ticket # 188101
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	760	11/16/2023	51242316379	MPE	11/16/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	11/16/2023	17012729	N/A	20.78	N/A	N/A	Weight Ticket #188117
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	789	11/16/2023	51242316379	MPE	11/16/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	11/16/2023	17012731	N/A	19.27	N/A	N/A	Weight Ticket #188115
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	18015	11/16/2023	51242316379	MPE	11/16/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	11/16/2023	17012733	N/A	19.28	N/A	N/A	Weight Ticket #188116
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	220256	11/16/2023	51242316379	MPE	11/16/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	11/17/2023	17012789	N/A	16.86	N/A	N/A	Weight Ticket #188143
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	18019	11/16/2023	51242316379	MPE	11/16/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	11/17/2023	17012790	N/A	18.98	N/A	N/A	Weight Ticket #188160
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	146258	11/16/2023	51242316379	MPE	11/16/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	11/17/2023	17012791	N/A	20.51	N/A	N/A	Weight Ticket #188161
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	789	11/17/2023	51242316379	MPE	11/17/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	11/17/2023	17012735	N/A	20.75	N/A	N/A	Weight Ticket #188184
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	789	11/17/2023	51242316379	MPE	11/17/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	11/17/2023	17012737	N/A	17.73	N/A	N/A	Weight Ticket #188189
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	18015	11/17/2023	51242316379	MPE	11/17/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	11/17/2023	17012788	N/A	22.69	N/A	N/A	Weight Ticket #188195
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	22056	11/17/2023	51242316379	MPE	11/17/2023	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	11/17/2023	17012779	N/A	9.31	N/A	N/A	Weight Ticket #188200
D31084AZ	Soil NTCRA	SWMU1-1 & AOC1-2	Rolloff	RB23136	9/27/2023	70337497	MPE	12/18/2023	CAT000624247	US Ecology	NVT330010000	Solid	RCRA HAZ	181	12/19/2023	17012851	N/A	2.02	N/A	N/A	TCS-4 pipe with ACM wrap and high chromium residue
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	789	1/9/2024	51242316379	MPE	1/9/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/9/2024	17012890	N/A	13.15	N/A	N/A	Weight Ticket #191270
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	18019	1/9/2024	51242316379	MPE	1/9/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/9/2024	17012893	N/A	17.55	N/A	N/A	Weight Ticket #191286
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	787	1/9/2024	51242316379	MPE	1/9/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/9/2024	17012895	N/A	17.96	N/A	N/A	Weight Ticket #191290
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	18020	1/9/2024	51242316379	MPE	1/9/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/9/2024	17012894	N/A	16.77	N/A	N/A	Weight Ticket #191287
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	784	1/9/2024	51242316379	MPE	1/9/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/9/2024	17012891	N/A	15.55	N/A	N/A	Weight Ticket #191280
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	22056	1/9/2024	51242316379	MPE	1/9/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/9/2024	17012892	N/A	14.86	N/A	N/A	Weight Ticket #191275
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	789	1/9/2024	51242316379	MPE	1/9/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/10/2024	17012896	N/A	16.83	N/A	N/A	Weight Ticket #191326
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	22056	1/10/2024	51242316379	MPE	1/10/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/10/2024	17012869	N/A	17.80	N/A	N/A	Weight Ticket #191347
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	18019	1/10/2024	51242316379	MPE	1/10/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/10/2024	17012897	N/A	18.51	N/A	N/A	Weight Ticket #191358
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	18020	1/10/2024	51242316379	MPE	1/10/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/10/2024	17012898	N/A	24.38	N/A	N/A	Weight Ticket #191357
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	787	1/10/2024	51242316379	MPE	1/10/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/10/2024	17012868	N/A	20.78	N/A	N/A	Weight Ticket #191346

Table H-2. Hazardous Waste Tracking Log
Soil NTCRA Completion Report
Topock Compressor Station, Needles, California

Project #	Task Name	Site or Task Description	Container Type	Bin ID (Truck #)	Accumulation Start Date	Waste Profile	Transporter	Date Transported	Transporter DOT # and EPA ID	Disposal Facility	Disposal Facility State ID or EPA ID	Matrix	Waste Type (Haz, Nonhaz, TSCA)	Waste Code (RCRA then State)	Disposal Facility Date (found on final manifest)	Manifest #	Incineration	Landfill (tons)	Recycle	Onsite	Comments/Notes
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	781	1/10/2024	51242316379	MPE	1/10/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/10/2024	17012867	N/A	16.14	N/A	N/A	Weight Ticket #191344
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	787	1/10/2024	51242316379	MPE	1/10/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/10/2024	17012874	N/A	20.47	N/A	N/A	Weight Ticket #191391
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	789	1/10/2024	51242316379	MPE	1/10/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/10/2024	17012899	N/A	19.52	N/A	N/A	Weight Ticket #191375
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	22056	1/10/2024	51242316379	MPE	1/10/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/11/2024	17012875	N/A	19.24	N/A	N/A	Weight Ticket #191439
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	781	1/10/2024	51242316379	MPE	1/10/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/11/2024	17012876	N/A	19.45	N/A	N/A	Weight Ticket #191438
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	18019	1/10/2024	51242316379	MPE	1/10/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/11/2024	17012878	N/A	21.65	N/A	N/A	Weight Ticket #191435
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	18020	1/10/2024	51242316379	MPE	1/10/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/11/2024	17012879	N/A	21.38	N/A	N/A	Weight Ticket #191436
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	789	1/11/2024	51242316379	MPE	1/11/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/11/2024	17012877	N/A	20.57	N/A	N/A	Weight Ticket #191460
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	787	1/11/2024	51242316379	MPE	1/11/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/11/2024	17012880	N/A	19.51	N/A	N/A	Weight Ticket #191463
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	1461258	1/17/2024	51242316379	MPE	1/17/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/17/2024	17012881	N/A	22.02	N/A	N/A	Weight Ticket #191895
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	18019	1/17/2024	51242316379	MPE	1/17/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/17/2024	17012882	N/A	20.85	N/A	N/A	Weight Ticket #191881
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	22056	1/17/2024	51242316379	MPE	1/17/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/17/2024	17012883	N/A	20.54	N/A	N/A	Weight Ticket #191879
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	789	1/17/2024	51242316379	MPE	1/17/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/17/2024	17012884	N/A	19.44	N/A	N/A	Weight Ticket #191887
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	760	1/17/2024	51242316379	MPE	1/17/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/17/2024	17012885	N/A	22.01	N/A	N/A	Weight Ticket #191905
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	18020	1/17/2024	51242316379	MPE	1/17/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/17/2024	17012887	N/A	22.98	N/A	N/A	Weight Ticket #191904
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	760	1/17/2024	51242316379	MPE	1/17/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/17/2024	17012886	N/A	24.67	N/A	N/A	Weight Ticket #191911
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	781	1/17/2024	51242316379	MPE	1/17/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/17/2024	17012888	N/A	23.37	N/A	N/A	Weight Ticket #191908
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	22056	1/17/2024	51242316379	MPE	1/17/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/18/2024	17012889	N/A	19.99	N/A	N/A	Weight Ticket #191950
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	18019	1/17/2024	51242316379	MPE	1/17/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/18/2024	17012912	N/A	21.07	N/A	N/A	Weight Ticket #191945
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	789	1/17/2024	51242316379	MPE	1/17/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/18/2024	17012913	N/A	21.19	N/A	N/A	Weight Ticket #191958
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	1461258	1/17/2024	51242316379	MPE	1/17/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/18/2024	17012914	N/A	20.16	N/A	N/A	Weight Ticket # 191955
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	18020	1/18/2024	51242316379	MPE	1/18/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/18/2024	17012915	N/A	21.98	N/A	N/A	Weight Ticket #191990
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	752	1/18/2024	51242316379	MPE	1/18/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/18/2024	17012916	N/A	22.12	N/A	N/A	Weight Ticket #191991
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	766	1/18/2024	51242316379	MPE	1/18/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/18/2024	17012917	N/A	22.96	N/A	N/A	Weight Ticket #191993
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	781	1/18/2024	51242316379	MPE	1/18/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/18/2024	17012918	N/A	21.08	N/A	N/A	Weight Ticket #192002
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	18019	1/18/2024	51242316379	MPE	1/18/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/18/2024	17012920	N/A	19.24	N/A	N/A	Weight Ticket #192023
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	22056	1/18/2024	51242316379	MPE	1/18/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/18/2024	17012919	N/A	18.67	N/A	N/A	Weight Ticket #192017
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	1461258	1/18/2024	51242316379	MPE	1/18/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/18/2024	17012921	N/A	19.68	N/A	N/A	Weight Ticket #192025
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	789	1/18/2024	51242316379	MPE	1/18/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/18/2024	17012922	N/A	18.11	N/A	N/A	Weight Ticket #192027
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	18020	1/18/2024	51242316379	MPE	1/18/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/19/2024	17012924	N/A	19.44	N/A	N/A	Weight Ticket #192081

Table H-2. Hazardous Waste Tracking Log
Soil NTCRA Completion Report
Topock Compressor Station, Needles, California

Project #	Task Name	Site or Task Description	Container Type	Bin ID (Truck #)	Accumulation Start Date	Waste Profile	Transporter	Date Transported	Transporter DOT # and EPA ID	Disposal Facility	Disposal Facility State ID or EPA ID	Matrix	Waste Type (Haz, Nonhaz, TSCA)	Waste Code (RCRA then State)	Disposal Facility Date (found on final manifest)	Manifest #	Incineration	Landfill (tons)	Recycle	Onsite	Comments/Notes
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	752	1/18/2024	51242316379	MPE	1/18/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/19/2024	17012925	N/A	18.13	N/A	N/A	Weight Ticket #192083
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	766	1/18/2024	51242316379	MPE	1/18/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/19/2024	17012926	N/A	21.55	N/A	N/A	Weight Ticket #192085
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	781	1/18/2024	51242316379	MPE	1/18/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/19/2024	17012927	N/A	20.45	N/A	N/A	Weight Ticket #192080
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	22056	1/19/2024	51242316379	MPE	1/19/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/19/2024	17012928	N/A	13.97	N/A	N/A	Weight Ticket #192161
D31084AZ	Soil NTCRA	AOC14 TAA1	Truck	789	1/19/2024	51242316379	MPE	1/19/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	151	1/19/2024	17012923	N/A	15.98	N/A	N/A	Weight Ticket #192118
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	787	12/4/2023	5124240825	MPE	2/12/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/12/2024	17013008	N/A	22.50	N/A	N/A	Weight Ticket #193745
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	18020	12/4/2023	5124240825	MPE	2/12/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/12/2024	17013009	N/A	20.06	N/A	N/A	Weight Ticket # 193747
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	18019	12/4/2023	5124240825	MPE	2/12/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/12/2024	17013007	N/A	21.37	N/A	N/A	Weight Ticket # 193748
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	18019	12/4/2023	5124240825	MPE	2/13/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/13/2024	17013002	N/A	23.28	N/A	N/A	Weight Ticket \$ 193860
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	787	12/4/2023	5124240825	MPE	2/13/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/13/2024	17013003	N/A	23.90	N/A	N/A	Weight Ticket # 193858
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	18019	12/4/2023	5124240825	MPE	2/13/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/13/2024	17013004	N/A	23.55	N/A	N/A	Weight Ticket # 193815
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	18020	12/4/2023	5124240825	MPE	2/13/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/13/2024	17013001	N/A	23.00	N/A	N/A	Weight Ticket # 193861
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	18020	12/4/2023	5124240825	MPE	2/13/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/13/2024	17013005	N/A	22.23	N/A	N/A	Weight Ticket #193816
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	787	12/4/2023	5124240825	MPE	2/13/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/13/2024	17013006	N/A	22.44	N/A	N/A	Weight Ticket #193812
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	787	12/4/2023	5124240825	MPE	2/14/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/14/2024	17013000	N/A	22.43	N/A	N/A	Weight Ticket #193913
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	18019	12/4/2023	5124240825	MPE	2/14/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/14/2024	17012999	N/A	24.13	N/A	N/A	Weight Ticket #193916
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	18020	12/4/2023	5124240825	MPE	2/14/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/14/2024	17012998	N/A	24.02	N/A	N/A	Weight Ticket # 193917
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	18020	12/4/2023	5124240825	MPE	2/14/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/14/2024	17012997	N/A	23.83	N/A	N/A	Weight Ticket # 193965
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	18019	12/4/2023	5124240825	MPE	2/14/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/14/2024	17012996	N/A	24.60	N/A	N/A	Weight Ticket #193966
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	787	12/4/2023	5124240825	MPE	2/14/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/14/2024	17012995	N/A	22.67	N/A	N/A	Weight Ticket # 193964
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	787	12/4/2023	5124240825	MPE	2/15/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/15/2024	17012993	N/A	23.27	N/A	N/A	Weight Ticket # 194015
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	18019	12/4/2023	5124240825	MPE	2/15/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/15/2024	17012994	N/A	22.06	N/A	N/A	Weight Ticket # 194016
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	18020	12/4/2023	5124240825	MPE	2/15/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/15/2024	17012992	N/A	21.18	N/A	N/A	Weight Ticket # 194017
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	18020	12/4/2023	5124240825	MPE	2/15/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/15/2024	17012991	N/A	23.76	N/A	N/A	Weight Ticket # 194057
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	18019	12/4/2023	5124240825	MPE	2/15/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/15/2024	17012990	N/A	24.22	N/A	N/A	Weight Ticket # 194056
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	787	12/4/2023	5124240825	MPE	2/15/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/15/2024	17012989	N/A	22.50	N/A	N/A	Weight Ticket # 194055
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	787	12/4/2023	5124240825	MPE	2/16/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/16/2024	17012986	N/A	21.69	N/A	N/A	Weight Ticket # 194098
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	18019	12/4/2023	5124240825	MPE	2/16/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/16/2024	17012987	N/A	21.14	N/A	N/A	Weight Ticket # 194103
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	18020	12/4/2023	5124240825	MPE	2/16/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/16/2024	17012988	N/A	21.24	N/A	N/A	Weight Ticket # 194104
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	18019	12/4/2023	5124240825	MPE	2/19/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/19/2024	17012985	N/A	24.32	N/A	N/A	Weight Ticket # 194196

Table H-2. Hazardous Waste Tracking Log
Soil NTCRA Completion Report
Topock Compressor Station, Needles, California

Project #	Task Name	Site or Task Description	Container Type	Bin ID (Truck #)	Accumulation Start Date	Waste Profile	Transporter	Date Transported	Transporter DOT # and EPA ID	Disposal Facility	Disposal Facility State ID or EPA ID	Matrix	Waste Type (Haz, Nonhaz, TSCA)	Waste Code (RCRA then State)	Disposal Facility Date (found on final manifest)	Manifest #	Incineration	Landfill (tons)	Recycle	Onsite	Comments/Notes
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	194200	12/4/2023	5124240825	MPE	2/19/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/19/2024	17012984	N/A	16.08	N/A	N/A	Weight Ticket # 194200
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	752	12/4/2023	5124240825	MPE	2/19/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/19/2024	17012983	N/A	28.27	N/A	N/A	Weight Ticket # 194228
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	18020	12/4/2023	5124240825	MPE	2/19/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/19/2024	17012982	N/A	24.40	N/A	N/A	Weight Ticket # 194227
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	789	12/4/2023	5124240825	MPE	2/19/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/19/2024	17012981	N/A	21.86	N/A	N/A	Weight Ticket # 194233
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	18019	12/4/2023	5124240825	MPE	2/19/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/19/2024	17012980	N/A	23.68	N/A	N/A	Weight Ticket # 194240
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	1461258	12/4/2023	5124240825	MPE	2/19/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/19/2024	17012979	N/A	21.14	N/A	N/A	Weight Ticket # 194241
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	18019	12/4/2023	5124240825	MPE	2/20/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/20/2024	17012978	N/A	21.20	N/A	N/A	Weight Ticket # 194281
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	1461258	12/4/2023	5124240825	MPE	2/20/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/20/2024	17012977	N/A	19.11	N/A	N/A	Weight Ticket # 194280
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	18020	12/4/2023	5124240825	MPE	2/20/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/20/2024	17012976	N/A	23.62	N/A	N/A	Weight Ticket # 194283
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	22056	12/4/2023	5124240825	MPE	2/20/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/20/2024	17012975	N/A	19.64	N/A	N/A	Weight Ticket # 194282
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	752	12/4/2023	5124240825	MPE	2/20/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/20/2024	17012974	N/A	20.14	N/A	N/A	Weight Ticket # 194286
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	789	12/4/2023	5124240825	MPE	2/20/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/20/2024	17012973	N/A	18.75	N/A	N/A	Weight Ticket # 194288
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	18019	12/4/2023	5124240825	MPE	2/20/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/20/2024	17012972	N/A	25.43	N/A	N/A	Weight Ticket # 194330
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	1461258	12/4/2023	5124240825	MPE	2/20/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/20/2024	17012971	N/A	17.58	N/A	N/A	Weight Ticket # 194331
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	22056	12/4/2023	5124240825	MPE	2/20/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/20/2024	17012970	N/A	19.28	N/A	N/A	Weight Ticket # 194333
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	18020	12/4/2023	5124240825	MPE	2/20/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/20/2024	17013023	N/A	23.17	N/A	N/A	Weight Ticket # 194338
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	752	12/4/2023	5124240825	MPE	2/20/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/20/2024	17013022	N/A	26.60	N/A	N/A	Weight Ticket # 194335
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	789	12/4/2023	5124240825	MPE	2/20/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/20/2024	17013021	N/A	21.03	N/A	N/A	Weight Ticket # 194337
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	18020	12/4/2023	5124240825	MPE	2/21/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/21/2024	17013026	N/A	18.20	N/A	N/A	Weight Ticket # 194391
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	1461258	12/4/2023	5124240825	MPE	2/21/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/21/2024	17013025	N/A	19.21	N/A	N/A	Weight Ticket # 194386
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	18019	12/4/2023	5124240825	MPE	2/21/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/21/2024	17013024	N/A	18.16	N/A	N/A	Weight Ticket # 194392
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	22056	12/4/2023	5124240825	MPE	2/21/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/21/2024	17013028	N/A	20.14	N/A	N/A	Weight Ticket # 194401
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	789	12/4/2023	5124240825	MPE	2/21/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/21/2024	17013027	N/A	17.83	N/A	N/A	Weight Ticket # 194399
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	752	12/4/2023	5124240825	MPE	2/21/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/21/2024	17013029	N/A	22.76	N/A	N/A	Weight Ticket # 194398
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	1461258	12/4/2023	5124240825	MPE	2/21/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/21/2024	17013030	N/A	19.69	N/A	N/A	Weight Ticket # 194442
D31084AZ	Soil NTCRA	SWMU1-2/SPY	Truck	789	12/4/2023	5124240825	MPE	2/21/2024	CAT000624247	La Paz	AZR000520882	Soil	NonRCRA HAZ	611	2/21/2024	17013031	N/A	19.81	N/A	N/A	Weight Ticket # 194447
D31084AZ	Soil NTCRA	AOC10 TAA1	Rolloff	RB23123	7/27/2023	N/A	GWP	10/25/2023	N/A	N/A	N/A	Soil	Nonhaz	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Waste characterized as Nonhazardous. Bin moved to SPY and added to nonhazardous stockpile.
D31084AZ	Soil NTCRA	AOC10 TAA1	Rolloff	RB23101	8/17/2023	N/A	GWP	10/25/2023	N/A	N/A	N/A	Soil	Nonhaz	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Waste characterized as Nonhazardous. Bin moved to SPY and added to nonhazardous stockpile.

Table H-2. Hazardous Waste Tracking Log
Soil NTCRA Completion Report
Topock Compressor Station, Needles, California

Project #	Task Name	Site or Task Description	Container Type	Bin ID (Truck #)	Accumulation Start Date	Waste Profile	Transporter	Date Transported	Transporter DOT # and EPA ID	Disposal Facility	Disposal Facility State ID or EPA ID	Matrix	Waste Type (Haz, Nonhaz, TSCA)	Waste Code (RCRA then State)	Disposal Facility Date (found on final manifest)	Manifest #	Incineration	Landfill (tons)	Recycle	Onsite	Comments/Notes
D31084AZ	Soil NTCRA	AOC10 TAA1	Rolloff	RB231137	8/21/2023	N/A	GWP	10/25/2023	N/A	N/A	N/A	Soil	Nonhaz	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Waste characterized as Nonhazardous. Bin moved to SPY and added to nonhazardous stockpile.
D31084AZ	Soil NTCRA	AOC10 TAA1	Rolloff	RB23136	8/21/2023	N/A	GWP	10/25/2023	N/A	N/A	N/A	Soil	Nonhaz	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Waste characterized as Nonhazardous. Bin moved to SPY and added to nonhazardous stockpile.
D31084AZ	Soil NTCRA	AOC10 TAA1	Rolloff	PT5833	8/22/2023	N/A	GWP	10/25/2023	N/A	N/A	N/A	Soil	Nonhaz	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Waste characterized as Nonhazardous. Bin moved to SPY and added to nonhazardous stockpile.
D31084AZ	Soil NTCRA	AOC10 TAA1	Rolloff	PT5961	8/22/2023	N/A	GWP	10/25/2023	N/A	N/A	N/A	Soil	Nonhaz	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Waste characterized as Nonhazardous. Bin moved to SPY and added to nonhazardous stockpile.
D31084AZ	Soil NTCRA	AOC10 TAA1	Rolloff	PT3901	8/25/2023	N/A	GWP	10/25/2023	N/A	N/A	N/A	Soil	Nonhaz	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Waste characterized as Nonhazardous. Bin moved to SPY and added to nonhazardous stockpile.
D31084AZ	Soil NTCRA	AOC16 TAA1	Rolloff	PT1084	10/4/2023	N/A	GWP	1/15/2024	N/A	N/A	N/A	Soil	Nonhaz	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Waste characterized as Nonhazardous. Bin moved to SPY and added to nonhazardous stockpile.

= number

ACM = asbestos-containing material

AOC = area of concern

BCW = Bat Cave Wash

DOT = U.S. Department of Transportation

EPA = U.S. Environmental Protection Agency

GWP = Groundwater Partners, Inc.

Haz = hazardous

ID = identification

MPe = MP Environmental Services, Inc.

N/A = not applicable

Nonhaz = nonhazardous

NTCRA = non-time-critical removal action

RCRA = Resource Conservation and Recovery Act

SPY = Soil Processing Yard

SWMU = solid waste management unit

TAA = target action area

TSCA = Toxic Substances Control Act

3594.26

	2022	2023	2024	Total
NonRCRA Haz Tons	None	1563.96	2019.89	3583.85
RCRA Haz Tons	None	10.41	None	10.41
				3594.26

Table H-3. Waste Profile Index
Soil NTCRA Completion Report
Topock Compressor Station, Needles, California

Appendix Section	Waste Profile #	Waste Type	Disposal Facility	Waste Source Areas
Section H-1	51242315251	Nonhazardous	LaPaz, Parker, Arizona	SWMU1 TAA1
				SWMU1 TAA2
				SWMU1 TAA3
				AOC1 TAA1
				AOC1 TAA2
				AOC1 TAA3
				AOC16 TAA1
				AOC27 TAA1
Section H-2	51242215499		LaPaz, Parker, Arizona	AOC9 TAA1
				AOC10 TAA1
				AOC10 TAA2
				AOC10 TAA3
Section H-3	51242213264		LaPaz, Parker, Arizona	AOC10 TAA4
Section H-4	5124243389		LaPaz, Parker, Arizona	AOC11 TAA1
Section H-5	5124240825		LaPaz, Parker, Arizona	AOC14 TAA1
Section H-6	51242313985	NonRCRA Hazardous	LaPaz, Parker, Arizona	SWMU1 TAA2
Section H-7	51242316379		LaPaz, Parker, Arizona	AOC10 TAA1
Section H-8	5124235371		LaPaz, Parker, Arizona	AOC14 TAA1
Section H-9	70337497		LaPaz, Parker, Arizona	AOC14 TAA1
Section H-10	70334546	RCRA Hazardous	US Ecology, Beatty, Nevada	AOC1 TAA2
			US Ecology, Beatty, Nevada	AOC10 TAA1

= number

AOC = area of concern

NTCRA = non-time-critical removal action

RCRA = Resource Conservation and Recovery Act

SWMU = solid waste management unit

TAA = target action area

Table H-4. Waste Manifest Index
Soil NTCRA Completion Report
Topock Compressor Station, Needles, California

Appendix Section	Waste Profile #	Waste Type	Disposal Facility	Waste Manifest ID	Waste Source Areas
Section H-1	51242315251	Nonhazardous	LaPaz, Parker, Arizona	BCW-YYYYMM-Load#	SWMU1 TAA1
					SWMU1 TAA2
					SWMU1 TAA3
					AOC1 TAA1
					AOC1 TAA2
					AOC1 TAA3
					AOC16 TAA1
					AOC27 TAA1
Section H-2	51242215499	Nonhazardous	LaPaz, Parker, Arizona	AOC-10-YYYYMM-Load#	AOC9 TAA1
					AOC10 TAA1
					AOC10 TAA2
					AOC10 TAA3
Section H-3	51242213264	Nonhazardous	LaPaz, Parker, Arizona	AOC-11-YYYYMM-Load#	AOC11 TAA1
Section H-4	5124243389		LaPaz, Parker, Arizona	AOC-14-YYYYMM-Load#	AOC14 TAA1
Section H-5	5124240825	NonRCRA Hazardous	LaPaz, Parker, Arizona	1701####	SWMU1 TAA2
Section H-6	51242313985		LaPaz, Parker, Arizona	17012491	AOC10 TAA1
Section H-7	51242316379		LaPaz, Parker, Arizona	17012###	AOC14 TAA1
Section H-8	5124235371		LaPaz, Parker, Arizona	17713###	AOC14 TAA1
Section H-9	70337497	RCRA Hazardous	US Ecology, Beatty, Nevada	17012851	AOC1 TAA2
Section H-10	70334546		US Ecology, Beatty, Nevada	17012490	AOC10 TAA1

= number

AOC = area of concern

NTCRA = non-time-critical removal action

RCRA = Resource Conservation and Recovery Act

SWMU = solid waste management unit

TAA = target action area

Due to file size, the Waste Manifests are available upon request.

Appendix I
Photograph Log



During-Removal Photo



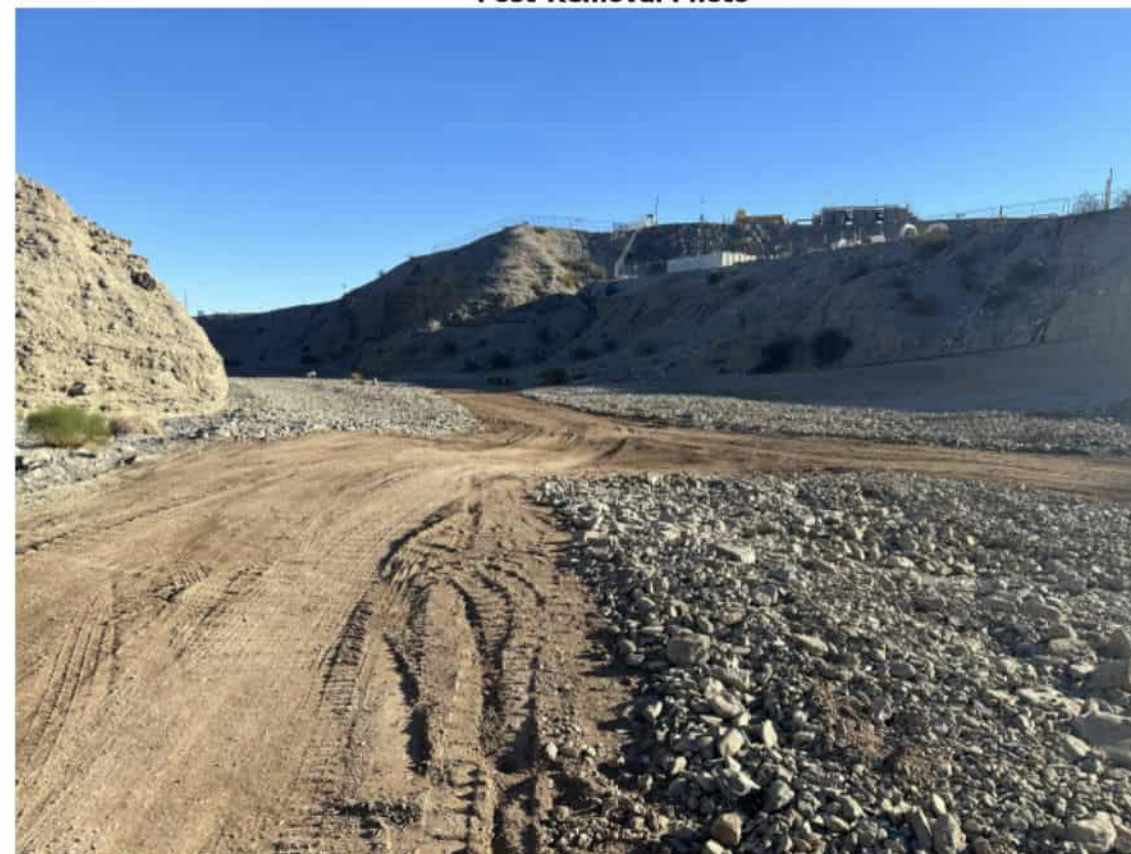
SWMU1 TAA1 Visible white powder lens and greenish gray discolored soil - Facing Southeast

Pre-Removal Photo






SWMU1 TAA1 Facing South

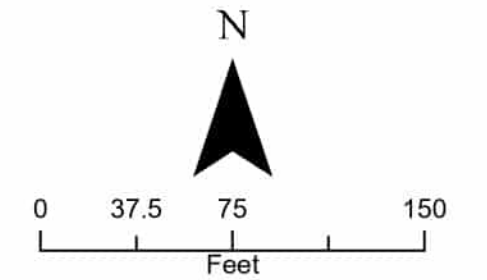
Post-Removal Photo



SWMU1 TAA1 Facing Northeast



-  TCS Fence
-  Target Action Area
-  Soil NTCRA Excavation Extent



Esri Community Maps Contributors, California State Parks, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, USFWS, Maxar

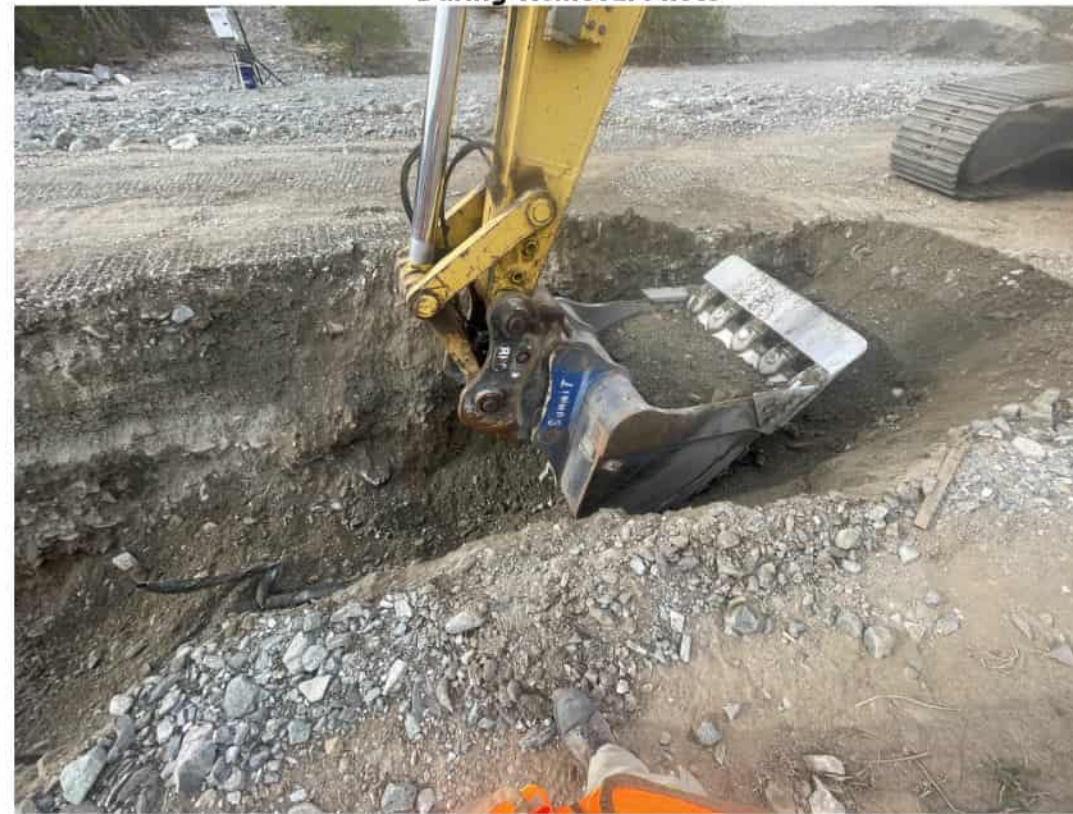
FIGURE I-1
SWMU1 TAA1 Site Photos
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station
 Needles, California



During-Removal Photo

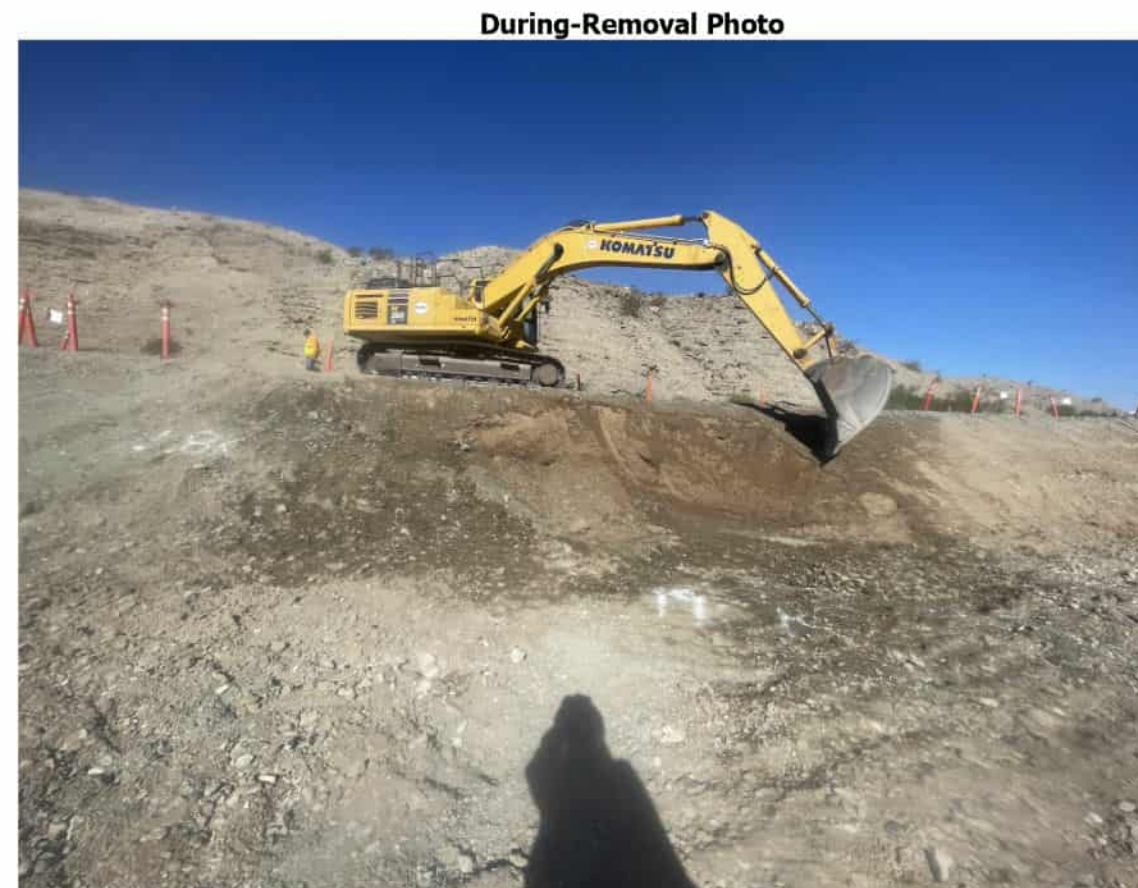


SWMU1 TAA1 Step-out excavations to east of the TAA - Facing Southeast



During-Removal Photo

SWMU1 TAA1 Visible greenish grey discolored soil and removal of abandoned TCS-4 pipeline - Facing Northwest

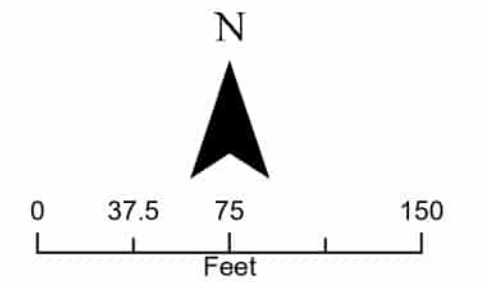


During-Removal Photo

SWMU1 TAA1 Visible greenish grey discolored soil - Facing West



- TCS Fence
- Target Action Area
- Soil NTCRA Excavation Extent



Esri Community Maps Contributors, California State Parks, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, USFWS, Maxar

FIGURE I-2
SWMU1 TAA1 Site Photos
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station
 Needles, California



During-Removal Photo



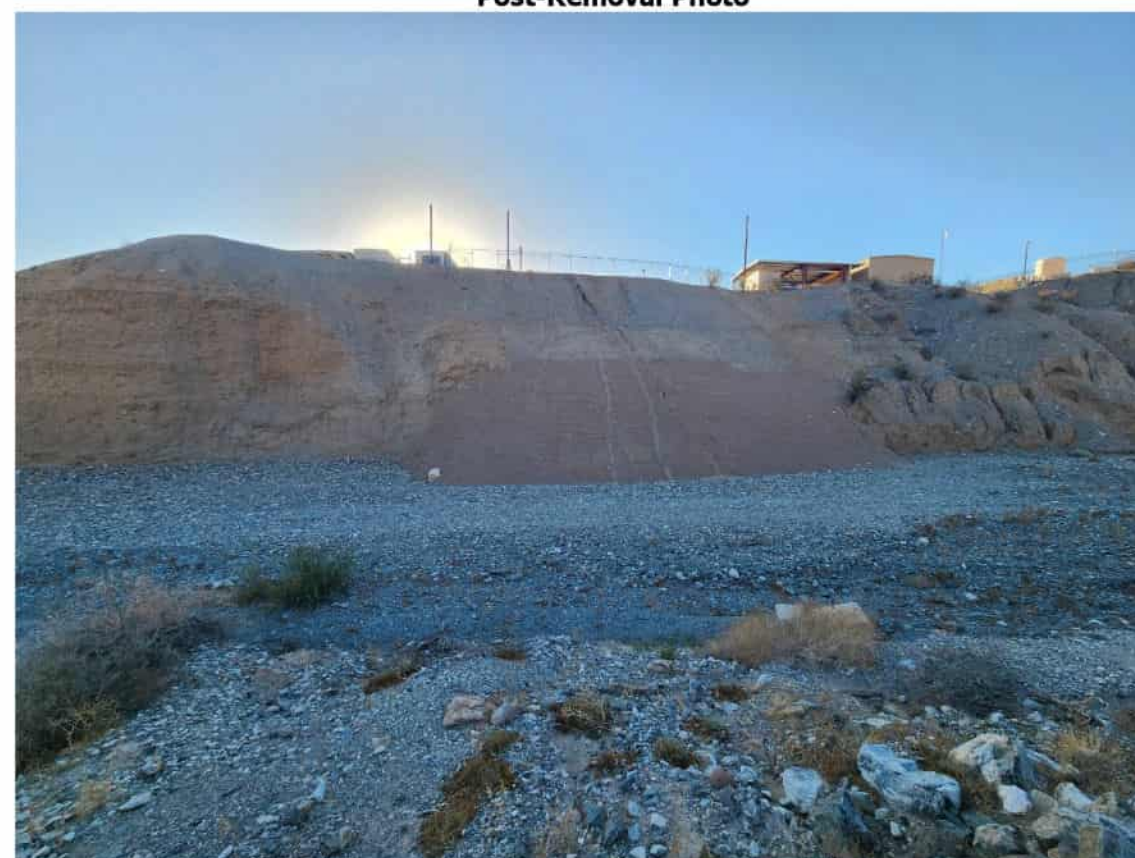
SWMU1 TAA2 Visible white powder lens - Facing South

Pre-Removal Photo



SWMU1 TAA2 Facing East

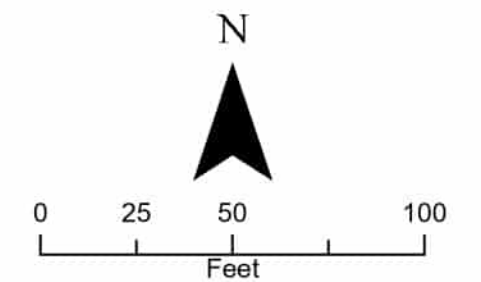
Post-Removal Photo



SWMU1 TAA2 Facing East



- TCS Fence
- Target Action Area
- Soil NTCRA Excavation Extent



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FIGURE I-3
SWMU1 TAA2 Site Photos
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station
 Needles, California



During-Removal Photo



Pre-Removal Photo

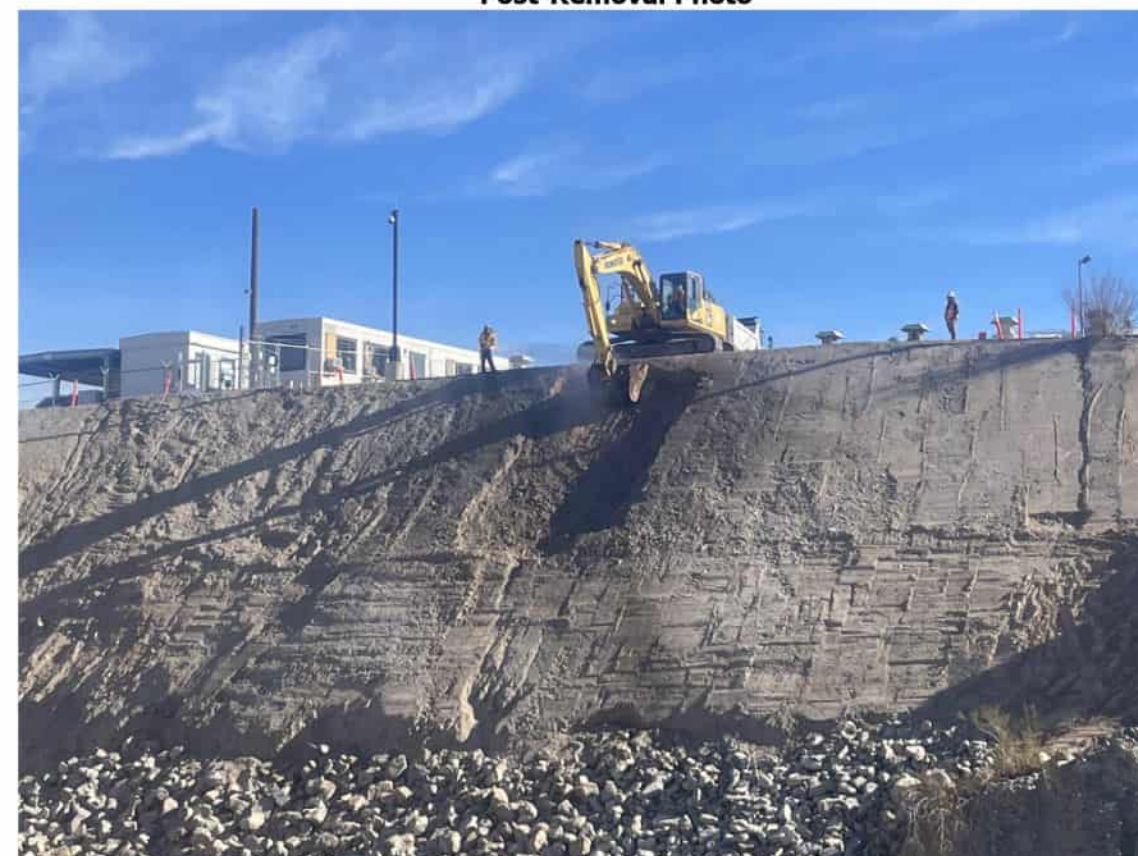
SWMU1 TAA3 Facing East



- TCS Fence
- ▭ Target Action Area
- ▨ Soil NTCRA Excavation Extent

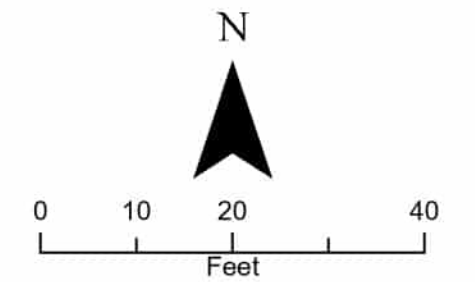


SWMU1 TAA3 Initial excavation from top of slope - Facing East



SWMU1 TAA3 Facing East

Post-Removal Photo



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FIGURE I-4
SWMU1 TAA3 Site Photos
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station
 Needles, California



During-Removal Photo



AOC1 TAA1 Initial excavation - Facing South

Pre-Removal Photo



AOC1 TAA1 Facing North

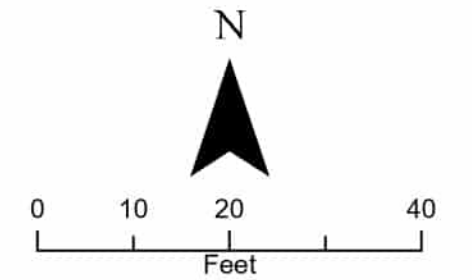
Post-Removal Photo



AOC1 TAA1 Facing North



- Target Action Area
- Soil NTCRA Excavation Extent



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FIGURE I-5
AOC1 TAA1 Site Photos
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station
 Needles, California





During-Removal Photo



Pre-Removal Photo

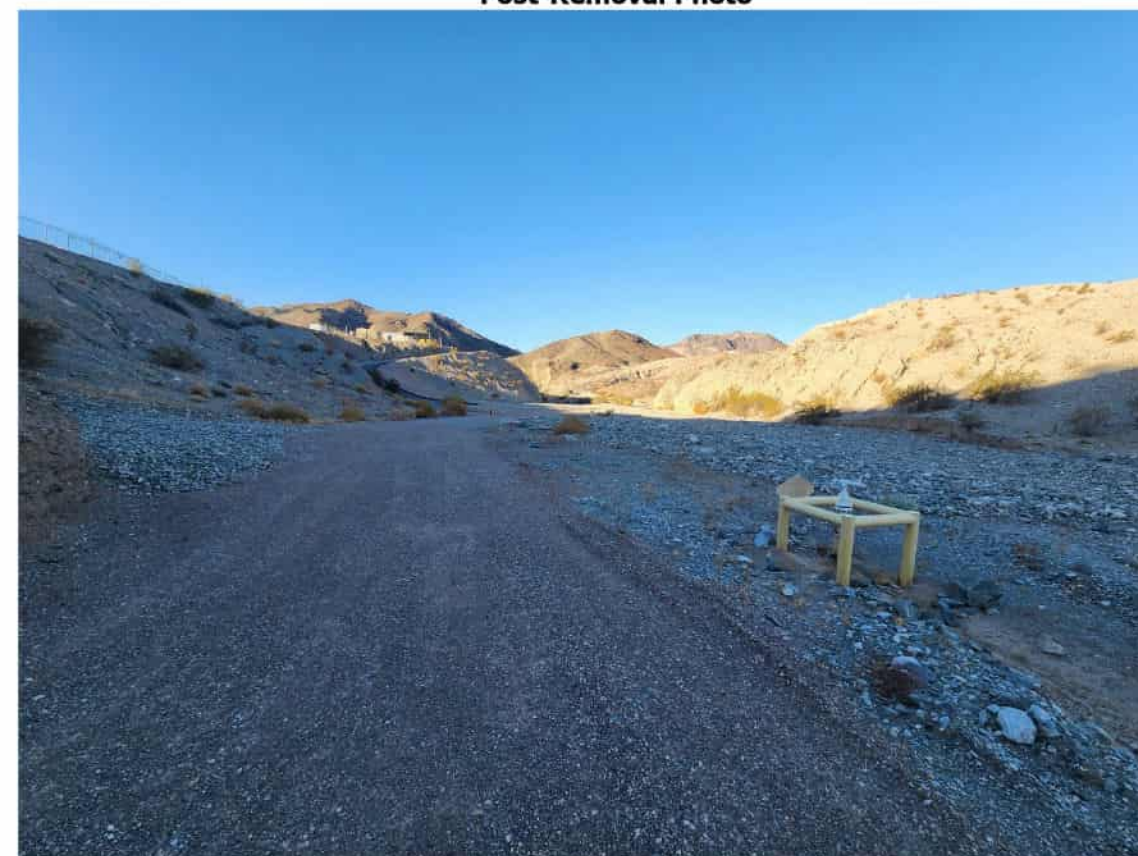
AOC1 TAA2 Facing Northeast



-  Target Action Area
-  Soil NTCRA Excavation Extent

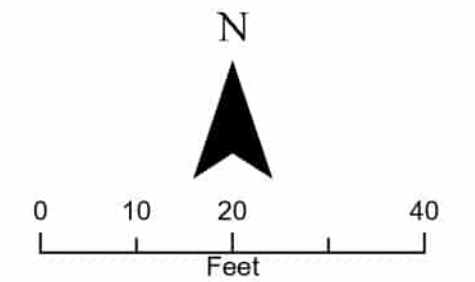


AOC1 TAA2 TCS-4 well uncovered and visible brownish orange discolored soil - Facing Southeast



Post-Removal Photo

AOC1 TAA2 Facing South



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FIGURE I-6
AOC1 TAA2 Site Photos
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station
 Needles, California



During-Removal Photo



AOC1 TAA3 Visible greenish gray discolored soil - Facing Northeast

Pre-Removal Photo





AOC1 TAA3 Facing South

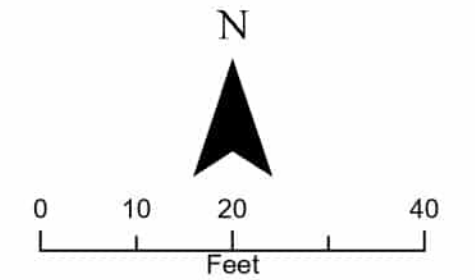
Post-Removal Photo



AOC1 TAA3 Facing South



-  Target Action Area
-  Soil NTCRA Excavation Extent



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FIGURE I-7
AOC1 TAA3 Site Photos
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station
 Needles, California



During-Removal Photo



AOC9 TAA1 Initial excavation and debris removal - Facing North

Pre-Removal Photo



AOC9 TAA1 Facing West

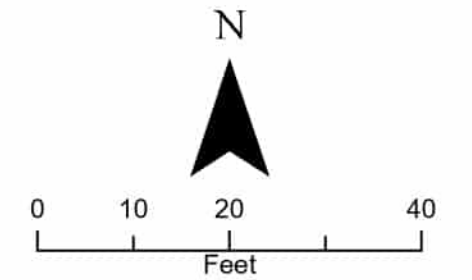
Post-Removal Photo



AOC9 TAA1 Facing Southwest



- TCS Fence
- Target Action Area
- Soil NTCRA Excavation Extent



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FIGURE I-8
AOC9 TAA1 Site Photos
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station
 Needles, California



During-Removal Photo



AOC10 TAA1 Visible white powder and rust discolored soil - Facing West

Pre-Removal Photo






AOC10 TAA1 Facing Northwest

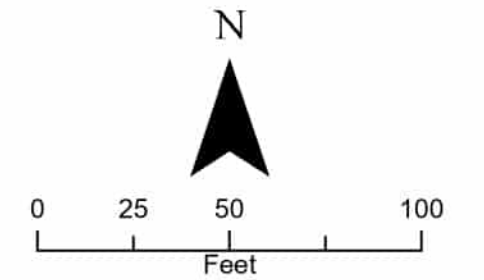
Post-Removal Photo



AOC10 TAA1 Facing West

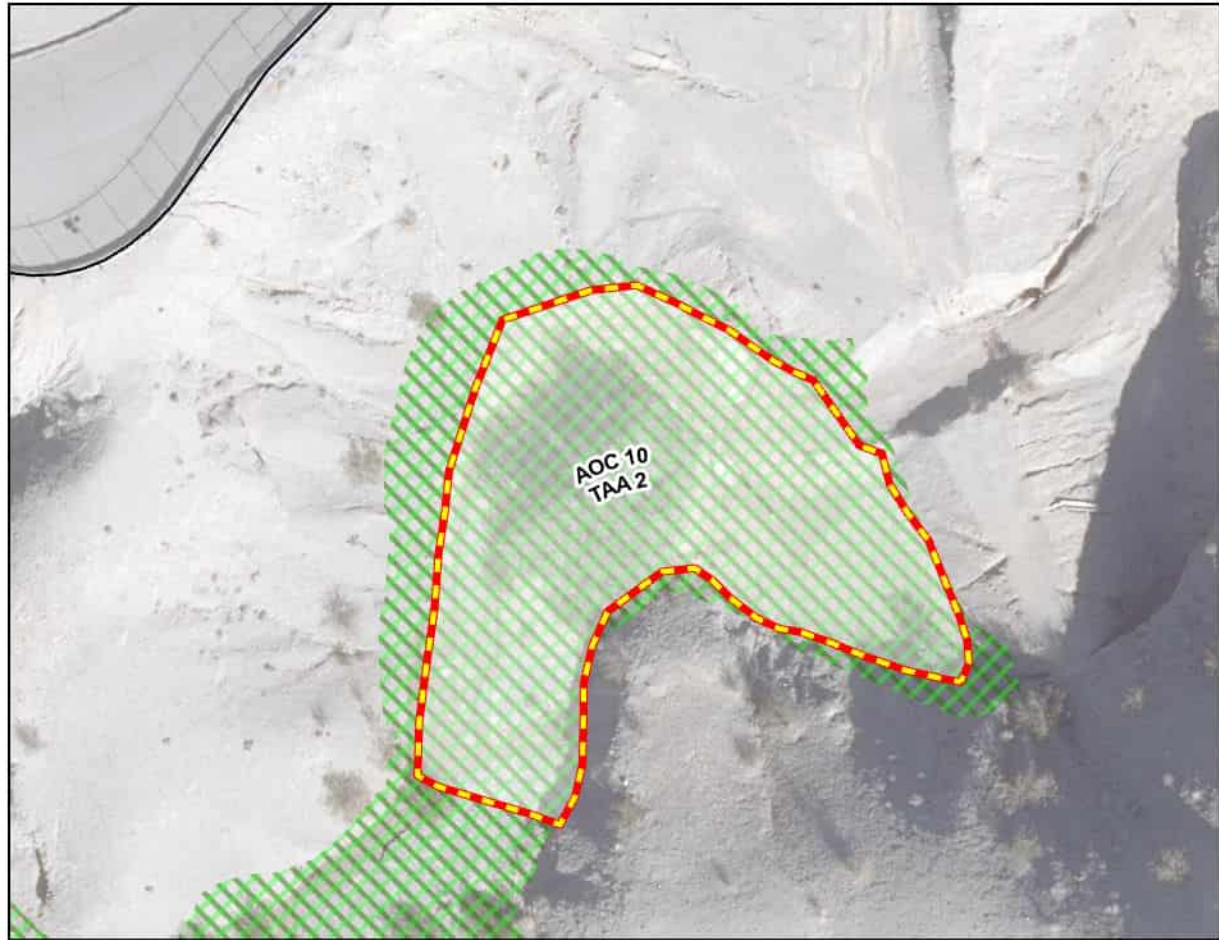


-  TCS Fence
-  Target Action Area
-  Soil NTCRA Excavation Extent



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FIGURE I-9
AOC10 TAA1 Site Photos
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station
 Needles, California



During-Removal Photo



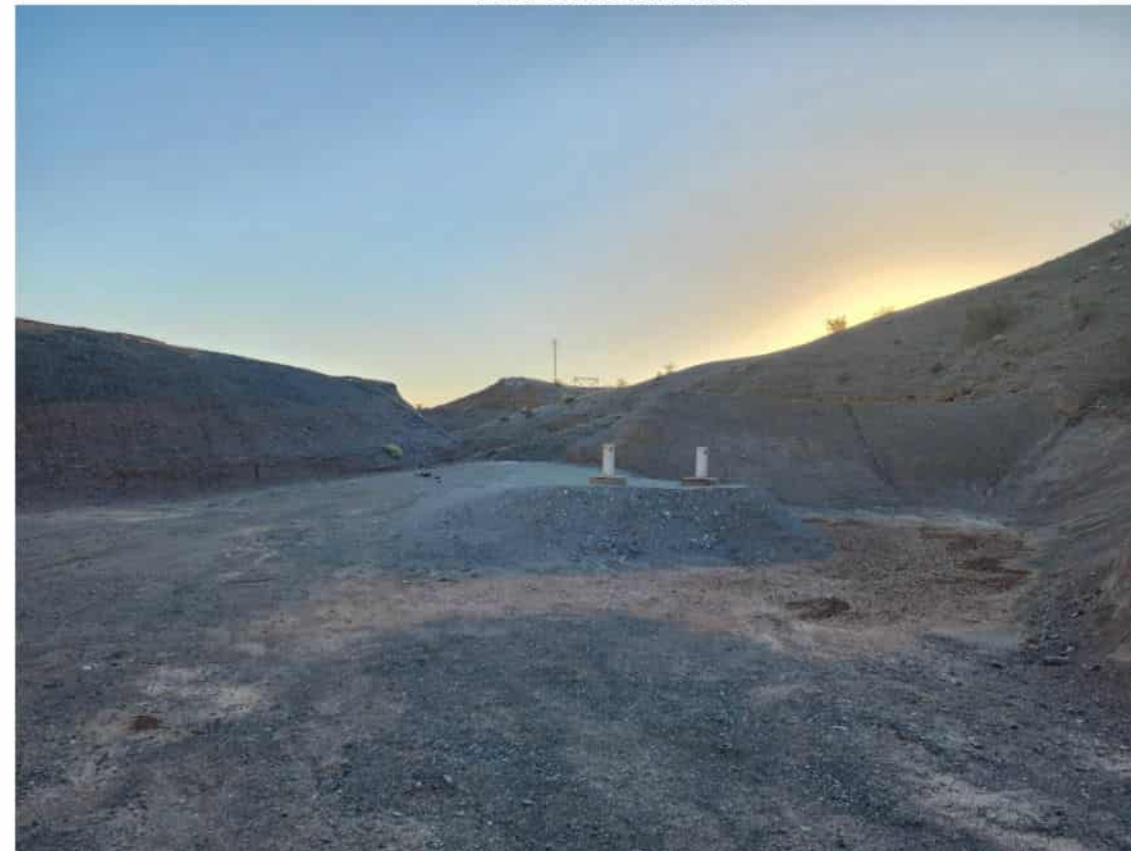
AOC10 TAA2 Initial excavation around mesquite trees - Facing South

Pre-Removal Photo






AOC10 TAA2 Facing Southwest

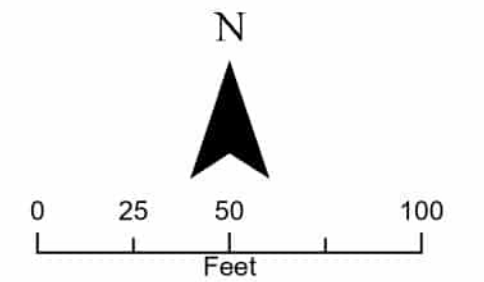
Post-Removal Photo



AOC10 TAA2 Facing North

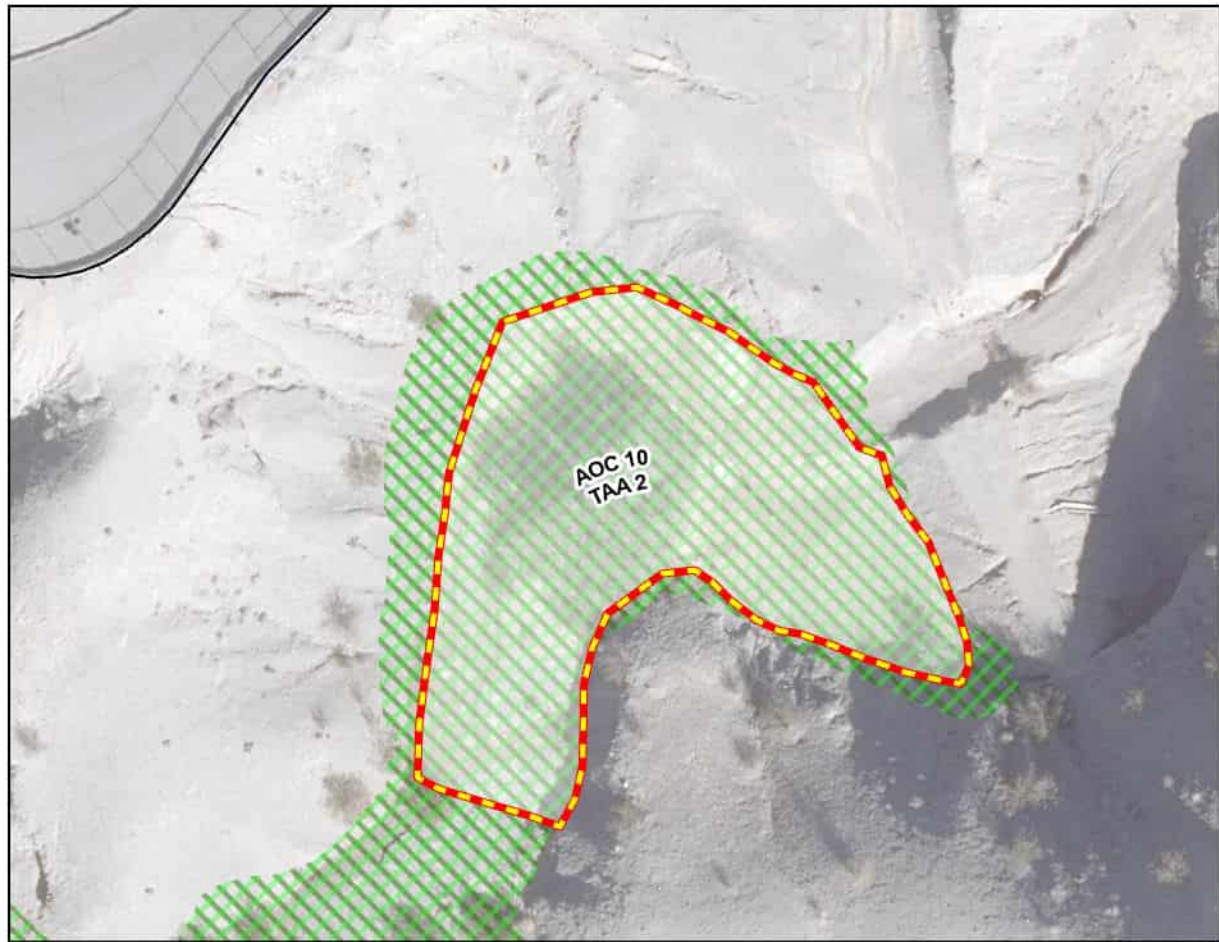


-  TCS Fence
-  Target Action Area
-  Soil NTCRA Excavation Extent



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FIGURE I-10
AOC10 TAA2 Site Photos
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station
 Needles, California



During-Removal Photo



AOC10 TAA2 West end of excavation. Rust discoloration under Palo Verde tree - Facing Northeast

Pre-Removal Photo



AOC10 TAA2 Facing West

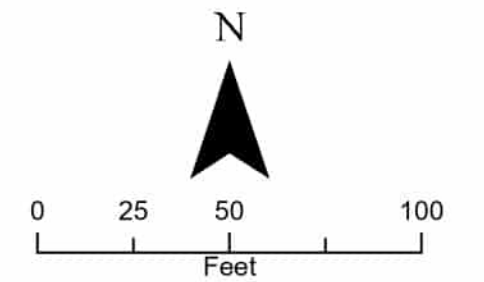
Post-Removal Photo



AOC10 TAA2 Facing Northeast



- TCS Fence
- Target Action Area
- Soil NTCRA Excavation Extent



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FIGURE I-11
AOC10 TAA2 Site Photos
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station
 Needles, California





During-Removal Photo



Pre-Removal Photo

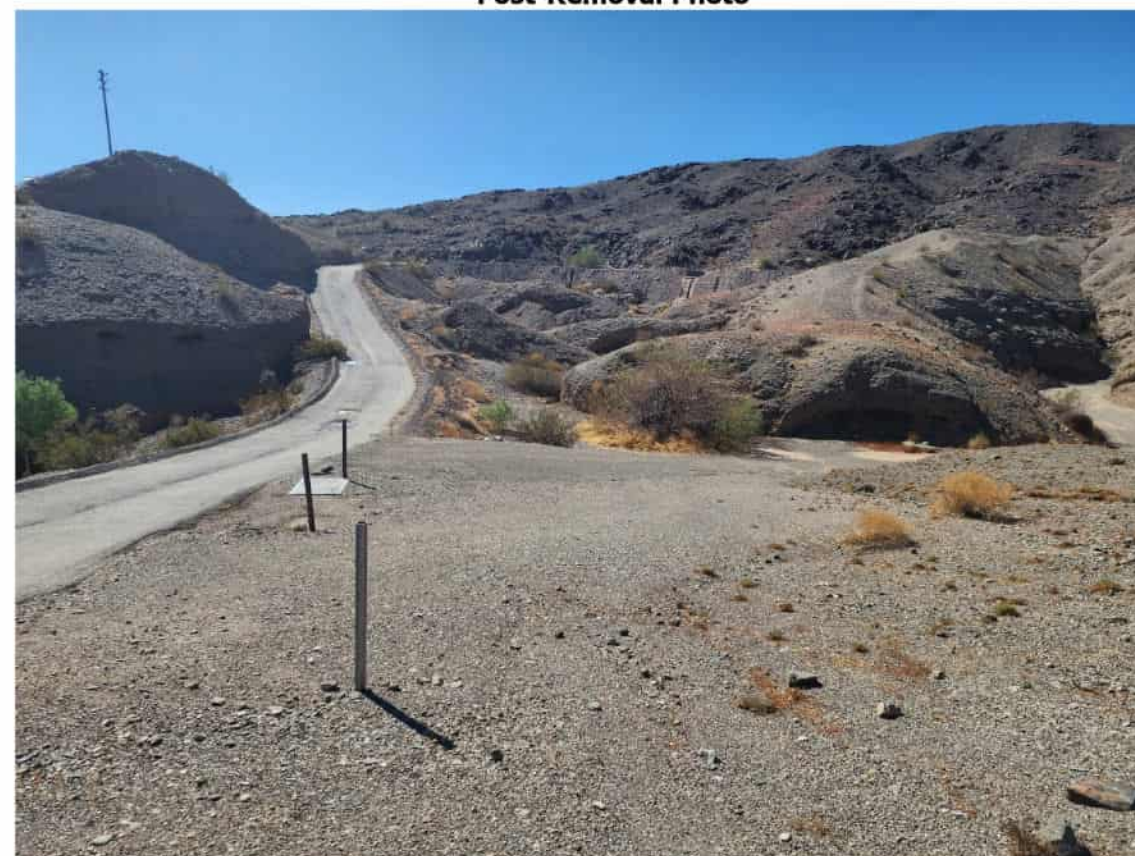
AOC10 TAA3 Facing Southeast



-  Target Action Area
-  Soil NTCRA Excavation Extent

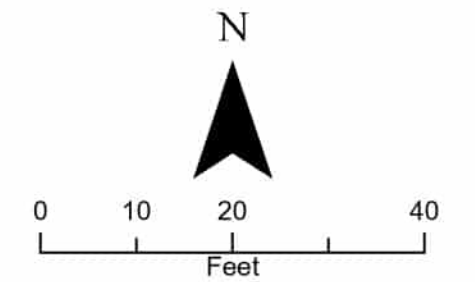


AOC10 TAA3 Initial excavation - Facing North



Post-Removal Photo

AOC10 TAA3 Facing Southeast



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FIGURE I-12
AOC10 TAA3 Site Photos
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station
 Needles, California



During-Removal Photo



AOC10 TAA4 Initial excavation and visible white powder lens - Facing Southwest

Pre-Removal Photo





AOC10 TAA4 Facing Southwest

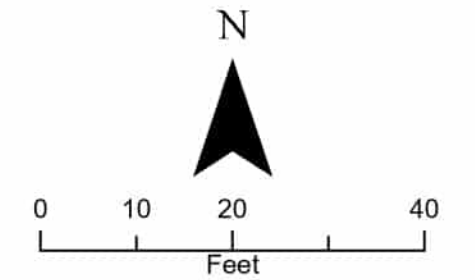
Post-Removal Photo



AOC10 TAA4 Facing South



-  Target Action Area
-  Soil NTCRA Excavation Extent



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FIGURE I-13
AOC10 TAA4 Site Photos
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station
 Needles, California



During-Removal Photo



AOC11 TAA1 Visible white powder lens - Facing Southwest

Pre-Removal Photo





AOC11 TAA1 Facing South

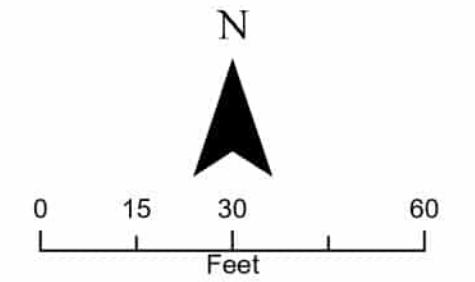
Post-Removal Photo



AOC11 TAA1 Facing North



-  Target Action Area
-  Soil NTCRA Excavation Extent



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FIGURE I-14
AOC11 TAA1 Site Photos
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station
 Needles, California



During-Removal Photo



AOC14 TAA1 Visible debris with potential ACM - Facing North

Pre-Removal Photo





AOC14 TAA1 Facing South

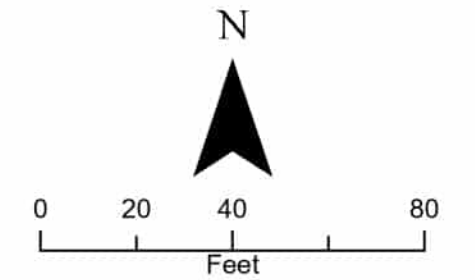
Post-Removal Photo



AOC14 TAA1 Facing East



-  Target Action Area
-  Soil NTCRA Excavation Extent

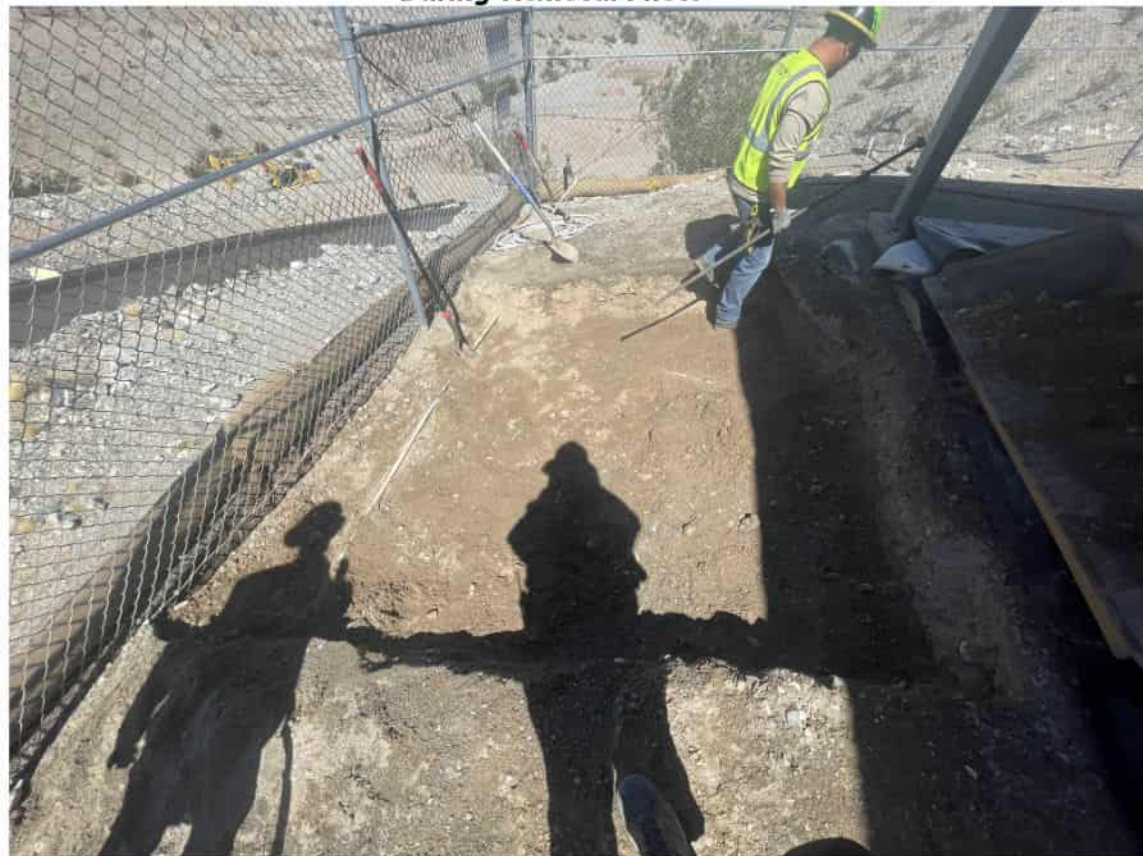


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FIGURE I-15
AOC14 TAA1 Site Photos
 Soil NTCRA Completion Report
PG&E Topock Compressor Station
Needles, California



During-Removal Photo



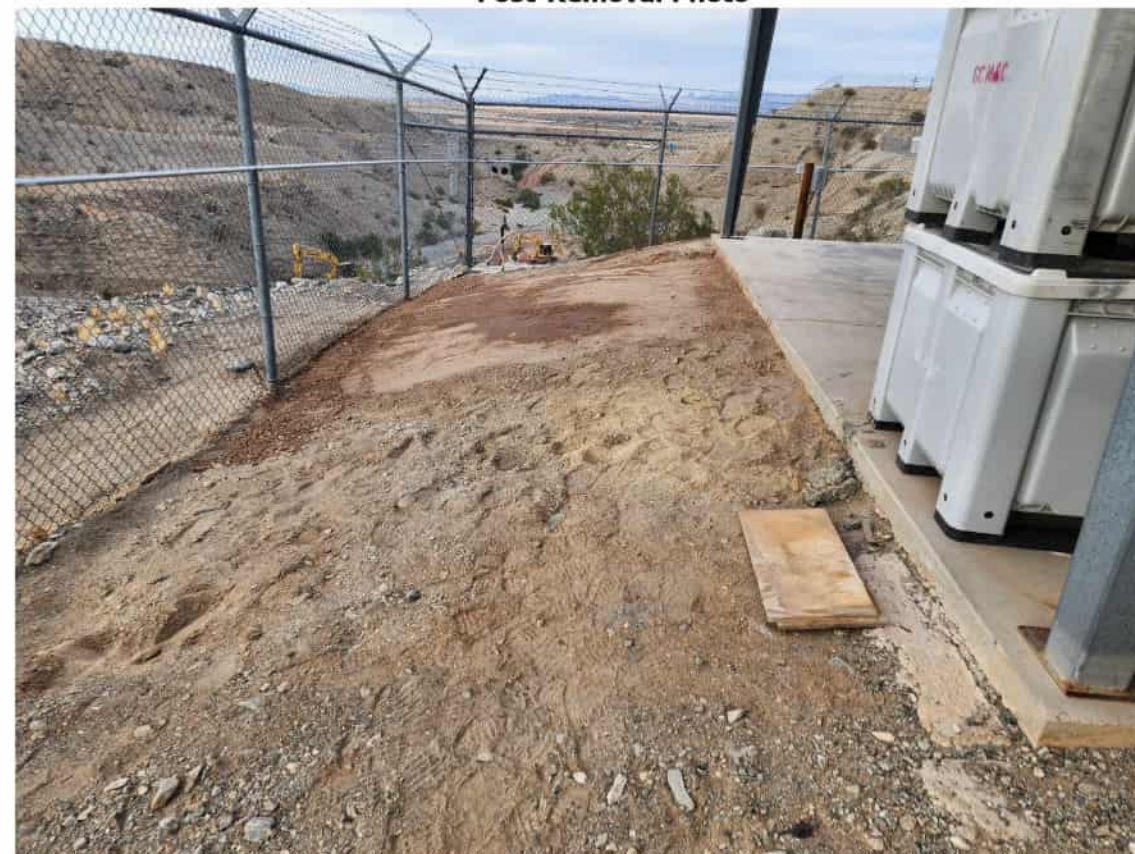
AOC16 TAA1 Manual excavation - Facing North

Pre-Removal Photo



AOC16 TAA1 Facing Northwest

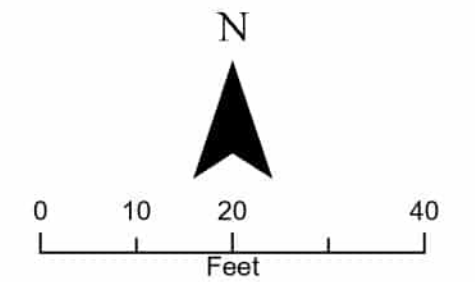
Post-Removal Photo



AOC16 TAA1 Facing North

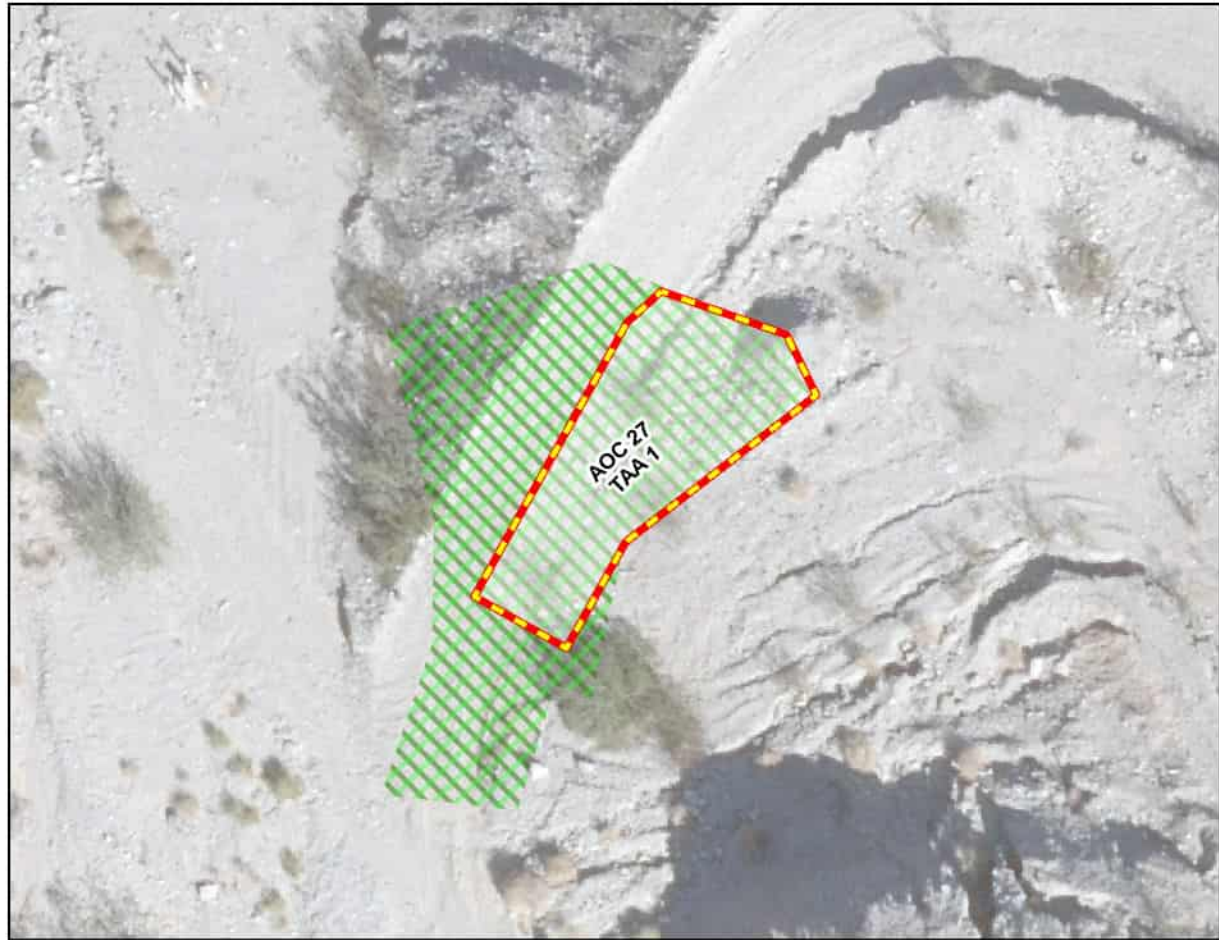


- TCS Fence
- Target Action Area
- Soil NTCRA Excavation Extent



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FIGURE I-16
AOC16 TAA1 Site Photos
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station
 Needles, California



During-Removal Photo



AOC27 TAA1 Initial excavation - Facing West

Pre-Removal Photo





AOC27 TAA1 Facing North

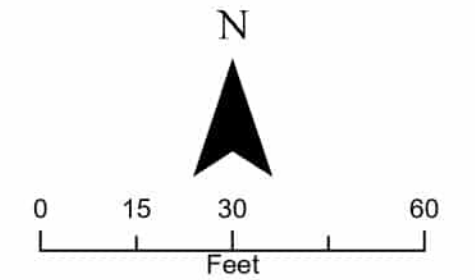
Post-Removal Photo



AOC27 TAA1 Facing North



-  Target Action Area
-  Soil NTCRA Excavation Extent



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FIGURE I-17
AOC27 TAA1 Site Photos
 Soil NTCRA Completion Report
 PG&E Topock Compressor Station
 Needles, California