Site Assessment and Characterization Report

Reed Estate #001 Orphan Wellsite

Lea County, New Mexico

Prepared for:

NEW MEXICO emnrd
Energy, Minerals and Natural Resources Department

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AUGUST 2023

Table of Contents

List of Figures

List of Tables

List of Appendices

Acronyms and Abbreviations

µR/hr	microroentgens per hour
µS/cm	microSiemens per centimeter
amsl	above mean sea level
API	American Petroleum Institute
bgs	below ground surface
BTEX	Benzene, Toluene, Ethylbenzene and Xylene
CEC	cation exchange capacity
COC	Chain of custody
CY	cubic yard
DEM	digital elevation model
DRO	diesel range organics
EMNRD	New Mexico Energy, Minerals and Natural Resources Department
EPA	United States Environmental Protection Agency
ft	foot/feet
GSD	Ground Surface Distance
GRO	gasoline range organics
H_2S	hydrogen sulfide
HAB(s)	hand-auger boring(s)
HEAL	Hall Environmental Analysis Laboratory
INTERA	INTERA Incorporated
in/px	inches per pixel
meq	milliequivalents
mg/kg	milligrams per kilogram
mL	milliliter/milliliters
MP	megapixels
mR/hr	milliroentgen/hour
NMAC	New Mexico Administrative Code
NORM	Naturally Occurring Radioactive Materials
OCD	New Mexico Energy, Minerals and Natural Resources Department – Oil Conservation Division
OSHA	Occupational Safety and Health Administration
PA	New Mexico General Services Department Pricing Agreement
PID	photoionization detector
ppm	parts per million
Sc	Specific conductivity
Site	Reed Estate #001 Wellsite (API 30-025-07258), Lea County, New Mexico
SSHASP	Site Specific Health and Safety Plan
TPH	Total Petroleum Hydrocarbon
USCS	Unified Soil Classification System
VOC	Volatile Organic Compound
WHD	Wage Hour and Division

1 Introduction

INTERA Incorporated (INTERA) has prepared this Site Assessment and Characterization Report for the New Mexico Energy, Minerals and Natural Resources Department (EMNRD) – Oil Conservation Division (OCD) for the Reed Estate #001 orphaned wellsite located northeast of Lovington, New Mexico, in Lea County (Site). This work was conducted under the State of New Mexico General Services Department Contract No. 521000-0000073157 issued December 13, 2022, and Pricing Agreement No. 10-52100-21-06041 (PA). The term of the PA is June 23, 2022, through June 22, 2023.

Reed Estate #001 was identified as a high priority site during an initial assessment of 76 orphaned oil and gas wells in spring of 2022, due to the extent of soil staining and proximity to a playa lake (INTERA, 2022). Soil sampling was recommended as the next investigative phase of corrective action to determine the depth and lateral extent of the contamination around the well and former tank battery. INTERA was contracted to characterize the historical releases and delineate the contamination.

In Fall of 2022, the U.S. Department of the Interior awarded New Mexico an Orphan Wells Initial Grant to clean up abandoned oil and gas wells on state and private lands in New Mexico. This federal Bipartisan Infrastructure Law, Sec. 40601 Orphaned Well Program (Grant #D33AP00169-00), provides a substantial portion of funding for this project to assess orphaned sites with the objective to remove remaining infrastructure, remediate contamination, and reclaim the surface to near-original conditions pursuant to 19.15.29.11-13 of the New Mexico Administrative Code (NMAC). On April 21, 2023, the U.S. Department of Labor issued a Wage decision No. NM20220012 Mod 2, and Wage Hour and Division (WHD) No. FY23-16422, for this project.

1.1 Site Assessment/Characterization Requirements

Before beginning remediation, 19.15.29.11 NMAC requires that soils be assessed both vertically and horizontally for potential environmental impacts from the release. In accordance with Subsection A of 19.15.29.11 NMAC and page 3 of Form C-141, the following information must be submitted to characterize the release and is included within this report:

(1) **Site map** consisting of a scaled diagram that shows the potentially impacted area and any significant surface features, subsurface features, delineation points, and monitoring wells.

(2) **Depth to ground water** must be determined where the release occurred. If the exact depth to ground water is unknown, a reasonable determination of probable ground water depth can be made using data generated by numeric models, cathodic well lithology, water well data, published information or other tools. If water well data is used, all pertinent well information must be provided.

(3) **Wellhead protection area** must be determined using the horizontal distance from all known water sources within a half mile of the release including private and domestic water sources. Water sources are wells, springs, or other sources of freshwater extraction.

(4) **Horizontal distance to the nearest water source or significant watercourse**, as defined in Subsection P of 19.15.17.7 NMAC, must be determined within a half mile of the lateral extents of the release.

(5) **Soil/waste characteristics** must be determined by delineating the lateral and vertical extents of soil contamination using Table I of 19.15.29.12 NMAC constituents, as outlined Subsection A, Paragraph (5), Subparagraphs (b), (c), and (d) of 19.15.29.11 NMAC.

Additionally, all field data, soil contaminant concentration data, boring or excavation logs, photographs, and laboratory data (including the chain of custody) must be provided, per Form C-141.

1.2 Site-Specific Health and Safety Plan

Prior to conducting any characterization field work, a Site-Specific Health and Safety Plan (SSHASP) was developed for the Reed Estate #001 wellsite to comply with INTERA safety requirements. The SSHASP is a dynamic document that is subject to change during the performance of the scope of work to protect personnel involved in ongoing activities at the Site. It includes Site location and history, roles and responsibilities, a comprehensive Site safety plan, site hazards, Site health and safety procedures, emergency contacts, a hospital route map, and a Site emergency response plan.

This SSHASP covers Site assessment and contamination delineation tasks, including soil sampling and supervision of excavation and trenching activities. Trench or excavation collapse is a large hazard at the Site, and INTERA follows Occupational Safety and Health Administration (OSHA) guidelines regarding sloping and benching in open excavations. Working alongside trenches and excavated pits creates falling and engulfment hazards, which are best mitigated through awareness of surroundings. INTERA field team leaders are OSHA certified as Competent Persons for excavation and trenching sites in compliance with OSHA 29 CFR 1926.650 subpart P regulations.

Another unique hazard is hydrogen sulfide (H_2S) gas due to the proximity of the Site to oil and gas production areas where H_2S is known to exist and pose a health hazard. Thus, a properly calibrated direct-read H_2S monitor worn in the breathing zone was required during all Site activities.

2 Background

2.1 Site Location & Physical Setting

The Reed Estate #001 wellsite, American Petroleum Institute (API) number 30-025-07258, is located in southeast New Mexico in the Hobbs District approximately 16 miles northeast of Lovington in Lea County (**Figure 1**) at latitude 33.00091 and longitude -103.08244. Site elevation is approximately 3,700 feet above mean sea level (amsl). The Site was formally operated by Hal J Rasmussen Operating, Inc., and is now considered an orphaned wellsite under the responsibility of the OCD. The Site is located on private land and is accessed through a locked gate on CR 93 via a maintained caliche access road from the north (**Figure 2**).

Regional geology consists of Quaternary-age wind-blown deposits, predominantly sand, ranging from 1 to 5 ft thick and underlain by caliche (Hunt, 1977). Soils are classified as well drained, calcareous sandy eolian deposits that are brownish-gray to brown to reddish-brown in color. The site's localized geology consists of a top clay layer, approximately 1.5 feet thick, followed by a well-cemented caliche layer ranging from 2 to 7 feet in thickness, displaying shades of grey to tan. Below the caliche, a weathered caliche layer primarily composed of tan-colored silty sand is encountered. Occurring intermittently beneath the weathered caliche, there is a 1-foot thick layer of a tan silica cemented paleosol contributing to the subsurface composition.

A playa lake is located within 100 ft of the northern boundary of the Site. Water was observed within the playa lake during the initial Site survey completed on May 4, 2022 (**Figure 3**, see insert photo). Surface water was not present during fieldwork activities in January and March of 2023. No other significant watercourses exist at the Site. The Site is relatively flat, sloping down gently to the north towards the playa lake. Land use in the vicinity of the Site is primarily for ranching and oil and gas production. The Site was not identified as a habitat for any threatened or endangered species.

2.2 Site History

According to public records accessed through the OCD well search application, the Reed Estate #001 well was completed on September 13, 1961, by Sinclair Oil & Gas Company at a depth of 12,848 ft below ground surface (bgs). Oil production began October 18, 1961. After 10 years of production, the well was plugged and abandoned in 1972 by Atlantic Richfield Company. Three decades later, Hal J. Rasmussen Operating, Inc., completed re-entry into the well and performed production testing in 2003. The well was re-plugged and abandoned on March 7, 2015, according to form C-103 submitted to OCD by the state of New Mexico on behalf of Hal J. Rasmussen Operating, Inc.

2.2.1 Letters of Violation

Several violations from the OCD are documented for this well starting in 2004 for delinquent report submittals. In 2008 a letter of violation was sent to the operator indicating the well had been idle for an extended period and corrective actions were to be taken to bring the well into compliance. Another letter of violation was sent in 2011, addressing the need to submit a C-141 for an oil spill observed on location during a field inspection of the still-idle well. No C-141 document was found on record. In 2013

an additional letter of violation was sent outlining a need to install a well-sign and to return the well to production or plug and abandon due to 48 months of inactivity.

2.2.2 Historical Aerial Imagery

Historical aerial imagery of the Site was reviewed using Google Earth Pro for the available years between 1990 and 2020. **Figure 4** provides a historical imagery timeline of release history utilizing images selected for higher resolution of the Site from 2003 through 2018. The 1990 imagery shows the caliche access road to the wellsite with a much smaller disturbed area footprint compared to the present well pad extent. The spring 2003 image displays Site conditions months prior to well re-entry activity in the fall of 2003. Both the 1990 and 2003 imagery show an area with dark staining in the northwest region of the Site. By 2005, the well pad had been delineated to its current extent with fencing and infrastructure consisting of a six-tank battery on the northern portion of the well pad. A release is evident in the 2005 imagery around the well, in the berm area between the tanks, and appears to have breached the berm around the southwest corner of the tank battery. Various spill events are interpreted around the tank battery in the 2006-2009 aerials. The 2010 imagery illustrates a combination of releases over a larger impacted area spanning from the well to the tank battery. By 2012, the impacted area has expanded slightly and appears darker. The 2014 imagery displays further expansion of the release to the northeast and appears to represent the maximum impacted area extent for the imagery available for review.

2.3 Current Site Conditions

The Site is fenced in with no access gate. The well pad is a partially vegetated caliche pad with an area of approximately 93,370 square feet (sq ft). The former oil and gas well has been plugged and marked with an abandoned well monument. The remnants of the former tank battery, including six gravel tank foundations approximately 15 ft in diameter, are in the northwest quadrant of the Site. A large hydrocarbon impacted area (~29,000 sq ft) encompassing the former tank battery and well is evident by dark brown staining of the soil and a strong odor. Electrical equipment debris associated with the former tank battery were documented, as well as polyline segments, well components, and various debris piles of metal, rubber, plastic, wood, and general trash. Locations of these materials at the Site are shown in **Figure 3**. The southeast corner of the wellsite has three power poles that form the end of a service line and approximately six additional poles along the access road. A former pit area is suspected in a disturbed area southwest of the well monument, but no liner was observed.

2.4 Groundwater and Surface Water

The Ogallala aquifer is the primary source of groundwater in Lea County (Leedshill-Herkenhoff, Inc., et al., 2000). The Ogallala formation is Tertiary in age and consists of interbedded layers of fine- to medium-grained sand and gravel that are overlain by an upper caliche layer. Minor quantities of clay, silt, and coarse sand are also present (Ash, 1963). The formation's lower third has a higher proportion of coarse sediment than the upper two-thirds, resulting in higher porosity and permeability in the lower part of the formation. The upper caliche layer exhibits varying degrees of cementation and ranges from 10 to 60 ft thick. Perched groundwater is found along caliche beds with bedding planes enlarged by solution. Erosional channels on the surface of the underlying Triassic Dockum group result in

irregularities that influence formation thickness (Nye, 1930). The Ogallala formation ranges from 0 to 350 ft in thickness, averaging approximately 150 ft near Lovington, New Mexico (Ash, 1963).

Regional pumping of the Ogallala aquifer has resulted in more than 80 ft of water level decline since 1940 (Leedshill-Herkenhoff, Inc., et al., 2000). Historically, well yields have ranged widely, likely due to formation differences or differences in well construction. Erratic fluctuations in water levels have also been reported in the area since 1929, due to differences in the permeability of the aquifer and localized heavy pumping (Ash, 1961).

The top of the Ogallala aquifer is believed to occur at a depth of less than 100 ft bgs at the Site, and the groundwater flow direction is to the southeast (Leedshill-Herkenhoff, Inc., et al., 2000). Active wells within a 2.5-mile radius of the Reed Estate #001 well exhibit a wide range of water levels between ~86 to ~122 ft bgs (NMOSE, 2023). The locations of these wells with depth to water values and well names (per Subsection A, Paragraph 2 of 19.15.29.11 NMAC) are shown in **Figure 5**. Historical wells within this same area have depths to water ranging from ~32 to ~90 ft bgs (NMOSE, 2023). Based on regional data and trends, the depth to groundwater is likely between 50 to 100 ft bgs at the Site.

Surface water is intermittently present within a playa lake located just north of the Site within 100 ft of the northern lateral extent of the release under investigation. The most significant surface watercourse in the region is the Pecos River located over 70 miles west of the Site.

2.5 Regulatory Standards

Pursuant to Subsection C, Paragraph 4(a) of 19.15.29.12 NMAC, Table I, because the Site is within 200 ft of a playa lake, the release must be treated as if it occurred less than 50 ft to groundwater. Therefore, the closure criteria for the Site are based on the following remediation standards:

Table I of 19.15.29.12 NMAC
Closure Criteria for Soils Impacted by a Release

Constituent	Method*	Limit**
Chloride***	Environmental Protection Agency (EPA) Method 300.0	600 milligrams per kilogram (mg/kg)
Total Petroleum Hydrocarbons (TPH) (GRO+DRO+MRO)	EPA Method 8015M/D	100 mg/kg
Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX)	EPA Method 8021B	50 mg/kg
Benzene	EPA Method 8021B	10 mg/kg

*Or other test methods approved by the division.

**Numerical limits or natural background level, whichever is greater.

***Applies to releases of produced water or other fluids, which may contain chloride.

3 Preliminary Site Assessment

The key objective of the preliminary Site assessment was to start characterizing the impacted soils using a simple, inexpensive soil boring method to collect samples of stained soils in high probability contamination areas and background samples for comparison. Supplementary objectives were to assess the depth of caliche and collect baseline imagery of the Site.

INTERA contacted New Mexico One Call System, Inc., for utility locate services prior to the preliminary assessment work to acquire utility clearance before performing any ground-disturbing activities. New Mexico One Call determined that buried utilities maintained by New Mexico One Call subscribers are not located within the Site boundaries.

3.1 Hand Auger Investigation Field Activities

A preliminary soil investigation was conducted at the Site on January 27, 2023, using a hand auger to collect soil boring samples in the dark-stained areas of suspected contamination to submit for laboratory analysis and confirmation. Two soil samples from each hand-auger boring (HAB) were submitted to the lab including the deepest depth investigated and highest observed contamination, where applicable. Samples representative of background conditions were also collected for analysis. The auger was decontaminated after each boring prior to moving to another location to avoid cross-contamination. The resulting data was used to gain insight into Site soil conditions, including caliche refusal depths and to inform decisions regarding a more extensive investigation. Photos taken during the preliminary investigation are included in **Appendix A,** and field notes are provided in **Appendix B**.

Eight samples were obtained from four HABs at the locations shown in **Figure 6.** Sample locations include the playa sediments approximately 100 ft north of the Site (HAB1), two boring locations within the berm area surrounding the former tank battery (HAB2 and HAB3), and a background sample south of the Site (HAB4). Multiple unsuccessful attempts were made to hand-auger additional locations within the release area due to shallow refusal depths of 5” (inches) or less at caliche, including the area west and north of the well monument labeled as R1, R2, and R3 (**Figure 6**). The shallow caliche layer encountered between the well and former tank battery may have been the result of compacted caliche construction of the well pad itself; however, in-situ caliche was observed elsewhere around the Site at an average depth of 14 inches bgs.

Although the soil appeared dark in Site photos and aerial imagery in some locations north of the Site, likely due to an alternate source of carbon, there were no observed signs of hydrocarbon contamination north of the Site fence line and on towards the southern boundary of the playa lake. HAB1 was advanced into the playa lake sediments to a depth of 32 inches bgs, where refusal was encountered at caliche. Samples *HAB1_14”-20”* and *HAB2_26”-32”* were collected in HAB1 to assess the southern playa lake sediments and ultimately serve as an extra uncontaminated (per 19.15.29 NMAC) background sample. Additional background samples were collected in an undisturbed area to the south of the Site at HAB4 including *HAB7_6”-12”* and *HAB8_12”-15”*. Refusal was hit at 15 inches in HAB4.

HAB2 and HAB3 were advanced within the berm area surrounding the former tank battery. The topsoil at HAB2 on the southern portion of the berm area was heavily saturated with hydrocarbons, as evident by a strong odor and visible staining. Staining was observed throughout the shallow profile to refusal at 18 inches bgs in caliche. Two soil samples were collected at HAB2 including *HAB3_9"-15"* and *HAB4_15"-18"*. HAB3 in the northeast corner of the berm area was sampled to 14 inches refusal depth including *HAB5_8"-13"* and *HAB6_13"-14"* that consisted of similar heavily saturated soil conditions to those collected at HAB2.

Each sample was properly labeled and stored in a cooler on ice. Samples were transported under the chain of custody (COC) to Hall Environmental Analysis Laboratory (HEAL) in Albuquerque, New Mexico, utilizing HEAL's courier service in the Lovington area. Soil samples were collected in 4-ounce jars and 40-milliliter (mL) vials for analysis of the following:

- BTEX Volatile Organic Compounds (VOCs) by EPA Method 8021B utilizing a methanol extraction method for VOC analysis.
- TPH-GRO, -DRO, and -MRO by EPA Method 8015M/D utilizing a methanol extraction method for TPH-GRO analysis.
- Chloride and other anions by EPA Method 300.0 (including nitrite, nitrate, bromide, sulfate, and fluoride).
- Soil Metals by EPA Method 6010B (including calcium, magnesium, potassium, and sodium).
- pH by SM4500H+B/EPA 9040C.
- Soil Cation Exchange Capacity (CEC).

3.2 Preliminary Results and Analysis

Analytical results for the preliminary HAB soil sampling are summarized in **Table 1** and displayed in **Figure 6**. A copy of the laboratory-issued analytical report is included in **Appendix C.** According to Table I of 19.15.29.12 NMAC, the threshold criteria for soils impacted by a release at this Site is a chloride concentration of 600 mg/kg, a TPH (GRO+DRO+MRO) concentration of 100 mg/kg, a total BTEX concentration limit of 50 mg/kg, and a benzene concentration limit of 10 mg/kg (See table in Section 2.5).

The samples collected north of Site in the playa lake sediments (HAB1) and the background sample (HAB4) collected south of the Site were both below lab detection limits for BTEX, TPH compounds, and chlorides. Shallow samples collected within the top 18 inches in the berm area surrounding the former tank battery (HAB2 and HAB3) were three orders of magnitude higher (>10,000 mg/kg) than the closure criteria limits for TPH with results ranging from 10,800 mg/kg to 16,310 mg/kg. Generally, concentrations of TPH increase with depth in HAB2 and HAB3 auger samples. BTEX values were above detection limits at HAB2 (11.7 mg/kg and 12.51 mg/kg) and exceeded the 50 mg/kg closure criteria in HAB3 with result of 57 mg/kg and 63 mg/kg. As the latest release is estimated to be approximately a decade old, low molecular-weight (i.e., BTEX) organic compounds may have evaporated, degraded, or leached away.

Soil CECs of HAB2 and HAB3 samples within the contaminated area (averaging 25 and 35 milliequivalents [meq]/100 g, respectively) are in line with those of the HAB1 and HAB4 background samples (averaging 35.5 and 17.5 meq/100 g, respectively). These soils, typical for those in an arid environment, are high in calcium (2,600 – 43,000 mg/kg). Analyses of CEC and major soil metals are important to evaluate soil geochemistry and suitability of the soils for various remediation techniques.

This preliminary sampling event confirmed and quantified TPH contamination of the soils at the Site. Further investigation was warranted to delineate the vertical and horizontal extent of contamination with a different investigation method, such as drilling or trenching, capable of penetrating the caliche layer encountered within the top 18 inches from the surface.

3.3 Aerial Imagery Collection

A drone flight was conducted by INTERA during the preliminary Site assessment on January 27, 2023, using an Autel Robotics Evo Dual II 640t quadcopter. Data acquired from the aerial survey provide an accurate representation of current Site conditions prior to soil remediation and surface reclamation. Image resolution was 4000 x 3000 pixels (~12 megapixels [MP]). DroneDeploy photogrammetry software was used to process the imagery and generate a Ground Surface Distance (GSD) Orthomosaic and a GSD Digital Elevation Model (DEM). The orthomosaic and DEM were generated using 260 of the collected images; the GSD orthomosaic has a resolution of 0.78 inches per pixel (in/px) and the GSD DEM has a resolution of 3.10 in/px. includes A brief aerial survey summary report is included as **Appendix D.**

4 Trenching Investigation

An investigation using trenches and potholes was carried out at the Site in March 2023 to delineate the horizontal and vertical extent of contamination resulting from the wellsite's history of releases from the former tank battery containing petroleum hydrocarbon product and potential leakage from the former oil and gas well. INTERA utilized Unlimited Construction, of Carlsbad, New Mexico, as the environmental services subcontractor to perform the trenching excavation. Prior to the soil excavation work, the New Mexico One Call underground utility clearance ticket was re-validated to cover the subsurface investigation fieldwork window. Supplementary objectives included creating a temporary gate in the enclosed wellsite fence for Site access, performing a preliminary Naturally Occurring Radioactive Materials (NORM) survey on pipeline segments, and stockpiling scattered debris and remaining infrastructure away from the active work zone.

A total of five trenches (T-1, T-3, T-4, T-5, and T-6) and six potholes (PH-02, PH-07, PH-08, PH-09, PH-10, and PH-11) were excavated across the Site (**Figure 7**) for visual observations of contamination at depth and to access soil for sampling. A 90,000-pound track hoe with a 24-inch-wide bucket was utilized to excavate through the cemented caliche. Grab samples were collected from the track hoe bucket or from stockpiles of excavated materials. Depths varied in each trench based on field screening measurements, which were used to detect the presence of hydrocarbons and chlorides to both guide excavation depths and locations and the selection of soil samples. Once sample collection was complete, trenches were backfilled with the excavated material and compacted with the bucket. The bucket was decontaminated between excavation locations to avoid cross-contamination. Field personnel did not enter the trenches at any time. Extreme care was taken when working around open excavations and safe distances from trench sidewalls were maintained. Photos taken during the trenching investigation are included in **Appendix A** and field notes and forms are provided in **Appendix B**.

4.1 Field Screening

4.1.1 Preliminary NORM Screening

Prior to trenching activities, INTERA mobilized to the Site on March 13, 2023, to perform a preliminary sitewide NORM screening. The screening was conducted using a Ludlum 19 device capable of measuring low levels of radiation to determine if any remaining infrastructure of concern at the Site (i.e. pipeline) contained radioactive material. Background readings were acquired first to establish a baseline radiation level for the area, which averaged at 6 microroentgens per hour (µR/hr). The average reading for screening polyline, metal pipe segments, miscellaneous metal debris, and the surrounding surface was between 6 to 10 µR/hr; however, one 6-inch section of polyline exhibited elevated readings with a maximum value of 30 µR/hr. Although this isolated section of polyline was 5 times background, there is an exemption in Subsection C of 20.3.14.1403 NMAC for equipment from oil, gas, and water production containing NORM if the maximum radiation exposure reading at any accessible point does not exceed 50 µR/hr.

4.1.2 Excavation Field Screening and Sampling Methodology

INTERA and Unlimited Construction began trenching activities at the Site on March 14, 2023, and proceeded to delineate contamination at various depths across the Site for 3 days. Soil properties were logged in the field book along with a sketch of each trench profile. Trenches were divided into horizontal sections (A, B, C, D; **Figure 7**) to organize sample locations, soil descriptions, and contamination boundaries. Horizontal sections within each trench were on average 13 feet long. Soil was classified according to the Unified Soil Classification System (USCS) for each section of the trench.

Samples were screened in the field for hydrocarbon and chloride impacts using rapid and inexpensive proxy measurements to steer excavation and guide the selection of samples to be analyzed by the laboratory. A photoionization detector (PID) and heated headspace methods were used to estimate VOCs in soil samples collected from various depths within the trenches. Prior to conducting field screening, the PID underwent a daily calibration using 100-parts per million (ppm) isobutylene, while the YSI multi-meter was calibrated through a three-point calibration. Field proxy screening for chloride was conducted by mixing soil and deionized water in jar at a 1:1 ratio (1 gram of soil to 1 milliliter of deionized water) to measure specific conductivity readings using a YSI multi-meter. The jar was shaken vigorously for 30 seconds, then allowed time for the sediments to settle to the base of the jar before collecting a reading from the water using a calibrated conductivity probe. Background PID and chloride proxy readings were collected from clean, undisturbed areas adjacent to the Site for a baseline condition comparison. A summary of the field screening results is provided in **Table 2**. Copies of the field screening forms are included in **Appendix B.**

Grab samples were collected from the track hoe bucket and labeled with a trench section designation and an approximate depth interval. Soil samples were collected at locations with observed discoloration, staining, and hydrocarbon odors, and in locations below the suspected contamination zone to confirm an approximate depth to clean material. Soil samples were targeted based on the highest field screenings observed, with the primary objective of identifying areas that were determined to be free of site contaminants. Select samples were analyzed in the lab for BTEX, TPH, chloride, pH, and a suite of anions and cations utilizing the same sampling procedures and parameter analysis methods outlined in Section 3.1.

4.2 Trenching Investigation Strategy and Field Activities

The objective of the trenching investigation was to delineate the vertical and horizontal extent of contamination by collecting samples to characterize the impacted soils for development of a remediation strategy. Trenches were oriented perpendicular to the north (T-1), south (T-5), east (T-3), and west (T-6) of the surface-stained area to delineate the horizontal extent of impact. Contamination depth was anticipated to be the deepest at the origins of the historical releases including the wellhead (T-5) and around the former tank battery (T-4). **Figure 7** shows the location of each soil investigation location as well as three cross-section transect lines (A-A', B-B', and C-C') for the trench soil profiles illustrated in **Figures 8a, 8b, and 8c**. A summary of the field-screening results is provided in **Table 2** including a column for field observation notes. Copies of the field notes and screening forms are included in **Appendix B**.

The surface was composed of an organic-rich clay throughout the investigation area to an average depth of 1.5 ft bgs. The clay was stained dark-brown, and in the majority of the investigation area, displayed a high moisture content, seemingly saturated with hydrocarbons with a strong odor. Caliche was encountered below the clay surface layer with varying thickness at each location. The caliche ranged from a well cemented, highly competent material difficult to excavate to a poorly cemented caliche

interbedded with silty sand. In release impacted areas, the caliche displayed a similar dark staining and emitted a hydrocarbon odor, mirroring the characteristics observed in the overlying clay layer (refer to Photograph 14 in **Appendix A**). An intermittent silica-cemented paleosol was encountered in trenches T-1, T-3, T-5, and T-6. Excavating through this dense paleosol unit proved to be exceptionally difficult and resulted in refusal at several trench locations. Although the operator managed to excavate through this layer in trench T-1, it required considerable effort and time. Excavation progress was slow and challenging through the well cemented materials and as a result, the planned number of trenches was reduced and replaced with shallower excavations referred to as potholes. Trenches generally involved excavating to a greater depth and encompassed a larger area for a more comprehensive investigation. Potholes were used primarily to confirm the presence of lack of contamination with quicker excavations that disturbed a smaller area and reached a shallower depth of approximately 5 ft bgs.

The northwest portion of the Site was investigated at trench T-1 oriented north-south through the berm area surrounding the former tank battery (**Figure 7**). Trenching began on the north side of the berm, labeled section A, to assure the spill did not migrate off-site to the north towards the playa lake. The goal was to delineate the northern contamination boundary starting with suspected clean material and working south to the known contamination zone. A 1-ft thick caliche layer was encountered below the organic rich clay around 1.5 ft bgs, followed by interbedded well cemented caliche and poorly cemented caliche with silty unconsolidated material to 13 ft bgs where a more competent silica-cemented paleosol unit was encountered. Field screening conducted in T-1A through T-1C revealed elevated specific conductivity (Sc) with a maximum reading of 2,898 microSiemens (µS/cm) at a depth of 4 ft bgs in T-1B. Soil staining and hydrocarbon odors were noted in the southern portion of the trench within the berm area (T-1D) throughout the profile from 0 to 13 ft bgs. PID readings measured below the cemented unit at 14-15 ft were an order of magnitude lower than in the contamination zone above, and lower still at 15-16 ft. Total depth of T-1 was 16 ft bgs. Samples were collected and submitted to the lab for analysis at T-1A (at 5.5 ft bgs), T-1B (at 5 ft bgs), and below the paleosol unit at a depth of 15 ft bgs.

The southern portion of the berm area surrounding the former tank battery was excavated at trench T-4 to assess the vertical extent of contamination determined from the lab samples collected at HAB2 during the initial hand auger investigation. Dark staining was observed from 0 to 6 ft bgs. Hydrocarbon odors persisted down to 14.5 ft bgs (refer to Photograph 10 in **Appendix A**). The trench profile was similar to T-1 with a slightly shallower depth of contamination by approximately 2 ft. An elevated PID reading of 378 ppm was recorded at a depth of 6 ft. A sample was collected and submitted to the lab for analysis from the suspected clean soil at a depth of 14.5 ft bgs. No significant Sc readings were observed at T-4, aside from a reading of 395 µS/cm at a depth of 12 ft bgs.

Evidence seen in historical imagery from 2014 of a battery tank leak that spread towards the northeast corner of the Site was investigated through trench T-3 and potholes PH-2 and PH-9. Trench T-3 was oriented east-west, starting at the eastern edge of the berm surrounding the tank battery. The trench was excavated towards a small berm in the northeast corner of the Site (refer to Photo 9 in **Appendix A**). Contaminated soil was identified in sections A through C of T-3, with hydrocarbon staining and odor observed between depths of 2 to 4 ft, which was further confirmed by PID readings. However, no obvious signs of contamination were observed in the overlying clay layer from 0 to 2 ft bgs throughout the T-3 profile. Field observations and screening data revealed the absence of contamination in the easternmost section D of T-3. Samples were collected for lab analysis within the suspected

contaminated area (T-3B2) at a depth of 4.5 ft bgs and in clean area (T-3D) at a depth of 8.5 ft bgs. T-3D terminated at 8.5 ft bgs where the silica-cemented paleosol was encountered.

PH-2 was excavated to ensure the spill had not migrated off-site to the northeast towards the playa lake. VOCs were not detected at PH-2, and the Sc reading was measured at 199 µS/cm at a depth of 5.5 ft bgs. PH-9 was excavated to confirm the absence of contamination within the smaller berm area in the northeast corner of the Site. No VOCs were detected in PH-9; however, elevated Sc readings were obtained, with the highest reading of 775 µS/cm at a depth of 0.6 ft bgs.

Trench T-5 was excavated to investigate the southern portion of the visibly impacted ground surface near the well monument. T-5 was oriented north-south to delineate the horizontal extent of contamination south of the well monument. Field screening in T-5A to the south of the well revealed no signs of contamination within the depth range of 0 to 10 ft bgs. A soil sample was collected at 10 ft bgs for confirmation of clean soil conditions. Section B of T-5 to the north and adjacent to the well monument, contained the highest field screening PID readings encountered during the investigation. Hydrocarbon contamination evidence was observed at depths ranging from 3 ft bgs to 19 ft bgs. PID readings displayed a decreasing trend in VOC concentration from 2,007 ppm at 14 ft bgs to 768 at 19 ft bgs, suggesting a potential decline of contaminant concentration as the excavation progressed. However, due to the reach limitations of the track hoe arm, the maximum vertical extent of the contamination could not be fully determined. Furthermore, a highly competent unit was encountered at a depth of approximately 19.5 ft bgs.

Pothole PH-10 was excavated to evaluate the horizontal extent of hydrocarbon contamination east of the well. No evidence of hydrocarbon contamination was observed, and soil screening readings for Sc showed a maximum value of 231 µS/cm at a depth of 2.5 ft bgs.

The investigation of the southwest portion of the visibly impacted ground surface was conducted through trench T-6 and pothole PH-11. T-6 was oriented in an east-west direction to delineate the horizontal extent of hydrocarbon contamination west of the well. A significant Sc reading of 2,113 µS/cm was detected in T-6A at a depth of 6 ft bgs, prompting the collection of a sample for laboratory confirmation of chlorides. Field screening in sections A and B of T-6 showed no indication of hydrocarbon contamination. Section C to the east revealed hydrocarbon staining and odor during excavation activities (refer to Photograph 13 in **Appendix A**), delineating the southwestern extent of hydrocarbon impact.

Elevated Sc field screening results in T-6A prompted further investigation in the center of the surrounding disturbed area (PH-11) suspected as the former pit. Elevated Sc readings ranging from 776 to 1,761 µS/cm at depths between 1.3 ft bgs to 5 ft bgs were measured in PH-11, and samples were collected for laboratory confirmation of chloride. No visual evidence of hydrocarbon contamination was observed in PH-11.

4.3 Trenching Analytical Lab Results

Soil samples collected from various depths in T-1, T-3, T-4, T-5, PH-2, PH-7, PH-8, and PH-11 were submitted to the lab for analysis. Samples were analyzed at HEAL using standard protocols for petroleum hydrocarbons and related contaminants including BTEX, TPH, chloride, pH, and a suite of anions and cations with the same parameter analysis methods outlined in Section 3.1. According to Table I of 19.15.29.12 NMAC, the threshold criteria for soils impacted by a release at this Site is a

chloride concentration of 600 mg/kg, a TPH (GRO+DRO+MRO) concentration of 100 mg/kg, a total BTEX concentration limit of 50 mg/kg, and a benzene concentration limit of 10 mg/kg (See table in Section 2.5). Analytical results for the soil samples collected during the trenching investigation are included as **Appendix C**, summarized in **Table 3**, and displayed on the cross-section profiles in **Figures 8a, 8b,** and **8c.**

The highest TPH values encountered during the trenching investigation were near the former oil and gas well in the samples collected from T-5B (13-14 ft) and T-5B (3-4 ft), with values of 13,550 mg/kg and 12,356 mg/kg, respectively. Other elevated TPH results in exceedance of the threshold criteria were encountered in T-3 from 3.5-4.5 ft with a value of 2,200 mg/kg. The TPH compounds of high molecular weight including TPH-DRO and TPH-MRO were far more abundant than BTEX and TPH-GRO. BTEX compounds make up a relatively small fraction of oil, and they are more volatile due to their lower molecular weight. It is not uncommon for soils contaminated by high molecular weight oil to not contain measurable BTEX, especially as the oil weathers.

Samples with elevated chloride levels above the release limit were collected west of the former oil and gas well in trench T-6A from 5-6 ft with a concentration of 2,100 mg/kg and north of the berm around the former tank battery in trenches T-1A and T-1B at depths of 4-5.5 ft, with values of 1,200 mg/kg and 640 mg/kg, respectively. Other chloride values above the detection limit but below the threshold criteria were encountered in T-4 and T-5, as well as in PH-07, PH-08, PH-11.

4.3.1 Data Correlation between Lab Results and Field Measurements

The relationship between field-measured Sc and PID readings with laboratory-tested chloride and TPH concentrations, respectively, was evaluated using a linear regression method to assess the validity of the field proxy estimates. The coefficient of variation ($R^2 = 0.84$) indicates that the field-measured PID readings are highly correlated with TPH concentration and could be used to approximate TPH concentrations using the following equation:

$y = 7.65x + 7.69$

where
x is the PID reading in ppm from field-measurement
y is the total TPH concentration (mg/kg) from laboratory analysis.

TPH and chloride concentrations approximated from field proxy measurements are included on the trench profiles in **Figures 8a, 8b,** and **8c** in orange boxes to distinguish them from the lab data presented in black.

The dataset for field-measured Sc and lab chloride concentration has more variation ($R^2 = 0.68$), including a few outliers within the small dataset, indicating a looser correlation. Elevated chloride proxy data approximated from field-measured Sc should be further confirmed with lab data before excavation of those areas. Continued sample collection and comparison of lab chloride concentrations to Sc field-screening measurements to create a larger sample population will likely improve the correlation between these parameters and is recommended for future soil remediation sampling.

5 Contamination Delineation

Results from the preliminary HABs and the trenching investigation in conjunction with historical aerial imagery data were all considered in the development of a comprehensive contamination delineation of impacted surface area and subsurface volume.

5.1.1 Impacted Surface Area Extent

Minimum and maximum hydrocarbon contamination boundaries were estimated based on available data and included on the cross-sections (**Figures 8a, 8b, 8c**). The surface area expression of the minimum and maximum extents of contamination are illustrated in **Figure 9**. The minimum hydrocarbon aerial extent (red dashed line) was estimated at approximately 14,381 sq ft and based solely on data confirmed by lab results in excess of the OCD closure criteria standards (19.15.29.12 NMAC, Table I). The maximum hydrocarbon boundary (blue dashed line) was estimated at approximately 29,037 sq ft and incorporates field observations, field proxy screening measurements, and historical aerial imagery to represent a comprehensive, conservative estimate of the maximum extent of contamination. The gray area on the cross-sections between the estimated minimum and maximum hydrocarbon contamination boundaries contains data gaps that require further lab sampling to confirm and refine the suspected contamination delineation before remediation efforts are conducted.

The chloride boundary (green dashed line) is only partially delineated in **Figure 9** based on limited data. All lab-derived chloride results, including the three locations that exceed the regulatory limit of 600 mg/kg (T-1A, T-1B, and T-6A), are identified on the Site map as **Figure 10**. The chloride exceedances to the north of the berm surrounding the former tank battery and to the west of the well, potentially in the former pit area, were encountered when attempting to identify clean material to delineate the edge of the hydrocarbon contamination boundary. The chloride exceedances do not coincide with the TPH and BTEX exceedances within the hydrocarbon contamination boundary, as none of the samples analyzed in the lab or screened in the field had both a chloride exceedance and a TPH or BTEX exceedance.

5.1.2 Cross-Section Data Visualization

Cross-sections were generated combining results from the preliminary HABs and the trenching investigation to better visualize the data used to delineate the vertical and horizontal extent of contamination at the Site (**Figure 7**). Three cross-section lines, A-A', B-B', and C-C', were drawn to transect the investigation areas where samples were collected. A-A’ is oriented east-west in the northern portion of the Site through the former tank battery. B-B’ transects east-west through the southern portion of the release area including the well location. C-C’ is oriented north-south through both A-A’ and B-B’, connecting the two identified release areas.

Transect A-A’ (**Figure 8a**) revealed high concentrations of hydrocarbon contamination in shallow soil, running parallel to the suspected source of the release from the former tank battery from T-1D to T-3C. This finding is consistent with visible staining observed in the historical aerial imagery of the Site (**Figure 4**) and is supported by field observations and screening data. Data gaps were identified in transect A-A', particularly in the deeper subsurface. As a result, this gray area is designated as a suspected hydrocarbon contamination area requiring further delineation efforts. Lab data for chloride

concentrations are below detection within both the minimum and maximum estimated hydrocarbon boundaries.

Transect B-B' (**Figure 8b**) delineates the southern boundary of the Site. Field screening and observations showed evidence of hydrocarbon contamination at T-5B, extending down to a depth of 19 ft bgs. Laboratory data confirmed the presence of hydrocarbons in the subsurface, with TPH concentrations exceeding regulatory limits down to a depth of 14 ft bgs. Moreover, imagery from 2010, 2012, and 2014 consistently revealed visible staining adjacent to the well, further supporting the field observations and laboratory results. The staining and odor were most prominent within a few feet of the well monument, suggesting a localized source of contamination. Field observations and proxy data suggest the hydrocarbon contamination extends to the west to T-6C. Lab-derived chloride concentrations are below the regulatory limit within the estimated hydrocarbon contamination boundaries; however, an elevated chloride result above the regulatory limit was detected along the southwestern boundary in T-6A at 6 ft bgs.

Transect C-C' (**Figure 8c**) is oriented north-south from the southern end of the playa lake, through the former tank battery (A-A'), and south to the well location (B-B'), connecting the two identified release areas. Lab-confirmed hydrocarbon contamination is deepest in T-5A at 14 ft bgs in the vicinity of the well and gradually reduces only a few feet depth at HAB3 within the former tank battery area. However, the hydrocarbon contamination is suspected to extend down to approximately 13 ft below the former tank battery and gradually increase in depth to 19 ft bgs around the former well based on field observations and screening measurements. Lab derived chloride concentrations are below the regulatory limit within both of the estimated hydrocarbon contamination boundaries. Elevated chloride results in exceedance of the regulatory limit were measured in T-1A and T-1B to 4 ft bgs just north of the berm surrounding the former tank battery.

5.1.3 Impacted Volume Estimates

The estimated maximum and minimum hydrocarbon contamination boundaries identified in **Figures 8a, 8b,** and **8c** and **Figure 9** were utilized to estimate the volume of hydrocarbon contaminated material in Civil3D. **Figures 11a** and **11b** illustrate color coded 2 ft-contour interval contamination depths for both the maximum and minimum hydrocarbon contamination boundaries, respectively. The volume estimate ranges from approximately 2,400 cubic yards (CY) for the minimum hydrocarbon contamination boundary to 10,900 CY for the maximum hydrocarbon boundary. For the minimum hydrocarbon boundary, the average depth is 4 to 6 ft bgs, with contamination extending as deep as 14 ft bgs near the now plugged oil and gas well. For the maximum hydrocarbon contamination boundary, the average depth to contamination is 10 ft bgs with contamination extending as deep as 19 ft bgs in an isolated area surrounding the former well. The tables included in the volume estimate figures also list the estimated area and volume of each 2-ft depth interval.

6 Site Remediation Options

INTERA and Unlimited Construction have evaluated the following soil remediation options for the Site based on the investigation findings including laboratory analysis of soil contamination, depth profiles, surface area extent, and volume estimates.

- **Option A: Dig & Haul.** Contaminated soil would be excavated and sent to an OCD-approved landfarm or landfill (i.e., R360 CRI) for remediation. Excavated areas will be backfilled with clean fill. The landowner has offered a source of clean fill and topsoil from an area within a half mile of the Site.
- **Option B: Soil Shredding.** An ex-situ remediation process conducted on Site by Unlimited Construction II to first mechanically break down the contaminated soils into smaller particle sizes to increase surface area and volatilization. This method involves an oxidative process that breaks down organic contaminants into carbon dioxide and water and removes organic contamination from the impacted soil. Chemical amendments such as hydrogen peroxide are blended on-site and are comprised of environmentally friendly oxidants and soil conditioners. The specific chemical treatment used will be designed by Unlimited Construction II based on soil analytical results. Contaminated soil is excavated and temporarily stockpiled onsite before being loaded into a soil processing unit, which pulverizes and screens the material to a diameter of <0.5-inches. A chemical treatment is applied with a sprayer as it passes along a conveyor belt. The treated material is stacked into process piles and is given 24 hours for reaction time prior to sampling and testing. The treated material can be used as backfill in the excavation once contamination has been reduced below the regulatory threshold. Note: This method is not suitable for soil chloride treatment.
- **Option C: Combination of A & B.** A combination of the above methods may be utilized to accomplish remediation goals of the two major types of contamination encountered. Soil shredding (Option B) could be used to treat the hydrocarbon impacted soils in conjunction with dig and haul (Option A) for chloride impacted soils that exceed the closure criteria threshold. Option A may also be preferred for large, well cemented caliche blocks that are not suitable for the mechanical particle size reduction technique.

All soil remediation options would be followed by compaction of the backfilled excavations, topsoil placement, and contouring of the Site. All actions pertaining to remediation and restoration of the Site would follow NMAC 19.15.29.

7 Assessment Conclusions

Investigation results indicate that the Reed Estate #001 Site is contaminated with respect to TPH and BTEX by a combination of several historical releases of petroleum products from the former tank battery and oil and gas well. A conservative estimate of approximately 29,037 sq ft (2/3 of an acre) surface area, with a subsurface volume of 10,900 CY, has been impacted based on records review, historical aerial imagery, field observations, and field-screening measurements. The minimum volume of lab-confirmed hydrocarbon contamination in exceedance of the closure criteria is approximately 2,400 CY. For the maximum hydrocarbon contamination boundary, the average depth to contamination is 10 ft bgs with contamination extending as deep as 19 ft bgs in an isolated area surrounding the now plugged oil and gas well. For the minimum hydrocarbon boundary, the average depth is 4 to 6 ft bgs, with contamination extending as deep as 14 ft bgs near the former well. The grey area between the estimated minimum and maximum hydrocarbon contamination boundaries depicted on the cross-sections in **Figures 8a**, **8b**, and **8c.** contains data gaps in need of lab analysis to confirm the suspected contamination delineation before remediation excavation efforts are conducted.

Chloride concentrations above the closure criteria limit were detected on the periphery of the delineated hydrocarbon-impacted area in two isolated locations, including north of the berm surrounding the former tank battery and west of the well monument. The chloride contamination is only partially delineated due to limited data. The exceedances were encountered when attempting to identify clean material to delineate the horizontal extent of the hydrocarbon contamination boundary. The chloride exceedances do not coincide with the TPH and BTEX exceedances encountered within the hydrocarbon contamination boundary, as none of the samples analyzed in the lab or screened in the field had both a chloride exceedance and a TPH or BTEX exceedance concentration.

Based on historical records review and aerial imagery, site observations, field screening, and laboratory results, the release-impacted areas at the Site should be remediated to address the hydrocarbon- and chloride-contaminated soil. Pursuant to Subsection C, Paragraph 4(a) of 19.15.29.12 NMAC Table I, because the Site is within 200 ft of a playa lake, the releases must be treated as if they occurred less than 50 ft to groundwater. Therefore, the closure criteria for the Site will be based on the most protective concentration standards for releases in NMAC. INTERA recommends soil shredding as the primary soil remediation method for hydrocarbon contamination in conjunction with dig and haul to dispose of the isolated chloride contamination.

A Remediation and Reclamation Work Plan is being developed to address the next steps of corrective action for Site closure. In addition to soil remediation, the remaining infrastructure and debris at the Site in need of removal include power poles, electrical debris associated with the former tank battery, polyline segments, well components, various debris piles of general trash, fencing, and the caliche well pad. Surface reclamation after excavation and remediation or disposal of contaminated soil includes backfill and topsoil placement of the excavation area and seeding of all disturbed areas.

8 References

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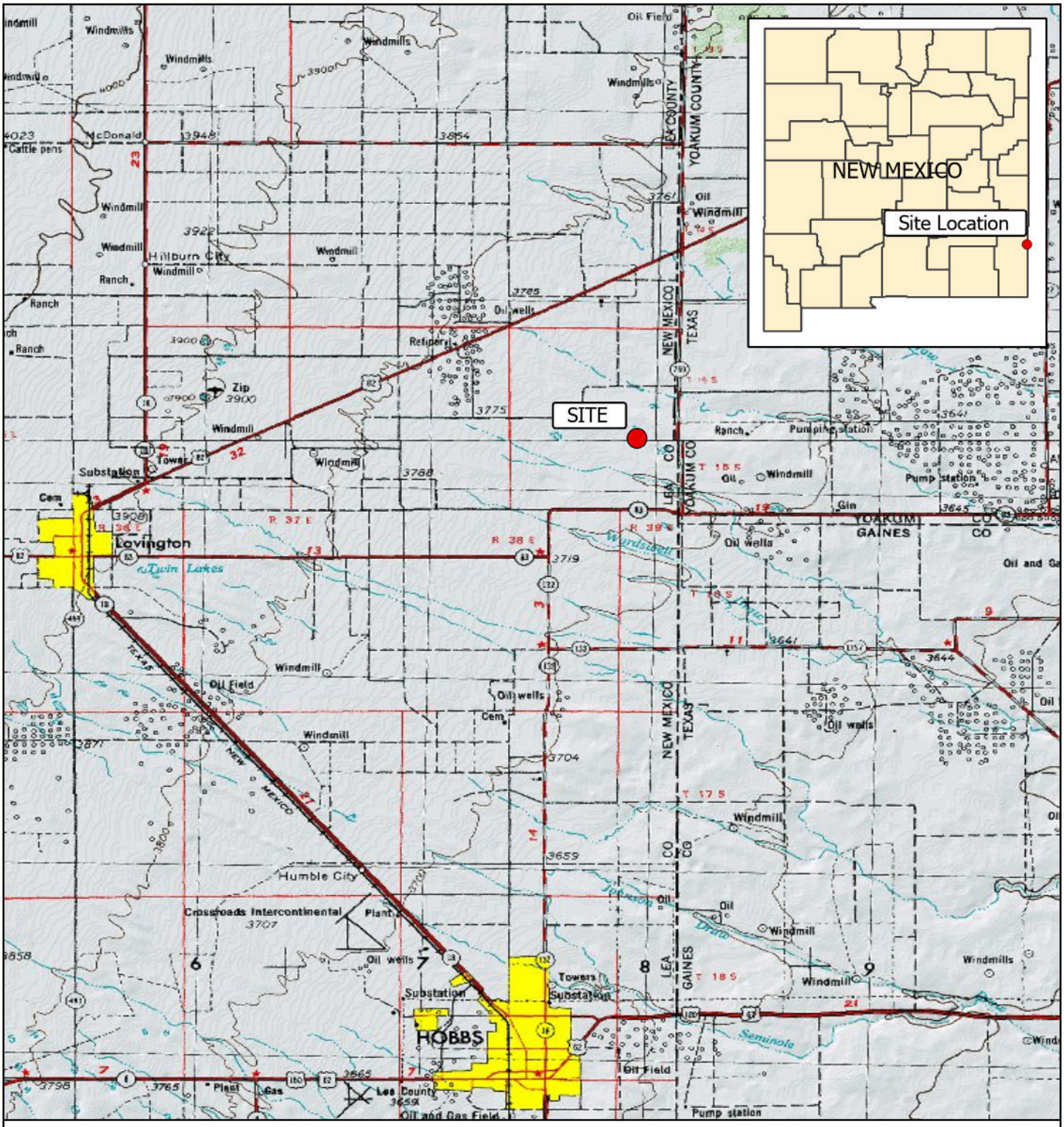
Figures



Source(s): USGS 7.5 Minute Topographic Maps:
Lovington Quadrangle, 1996; Contour Interval 10 Feet

N

5 2.5 0 5

Kilometers

Figure 1
Site Location Map
Reed Estate #001 Orphan Wellsite
Lea County, NM
Site Assessment & Characterization Report

INTERA

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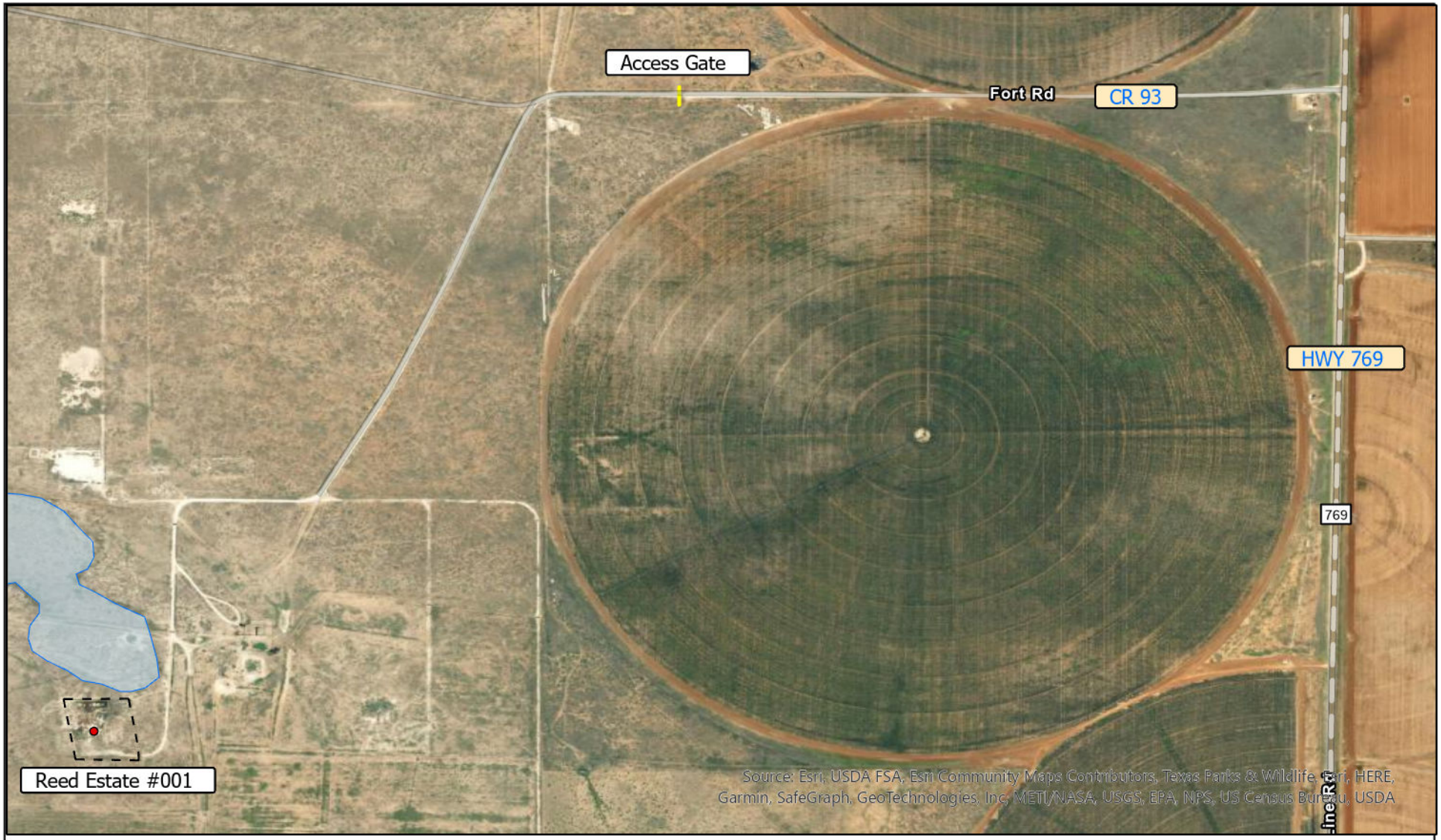

Figure 2
Site Access Map
Reed Estate #001 Orphan Wellsite
Lea County, NM
Remediation Work Plan

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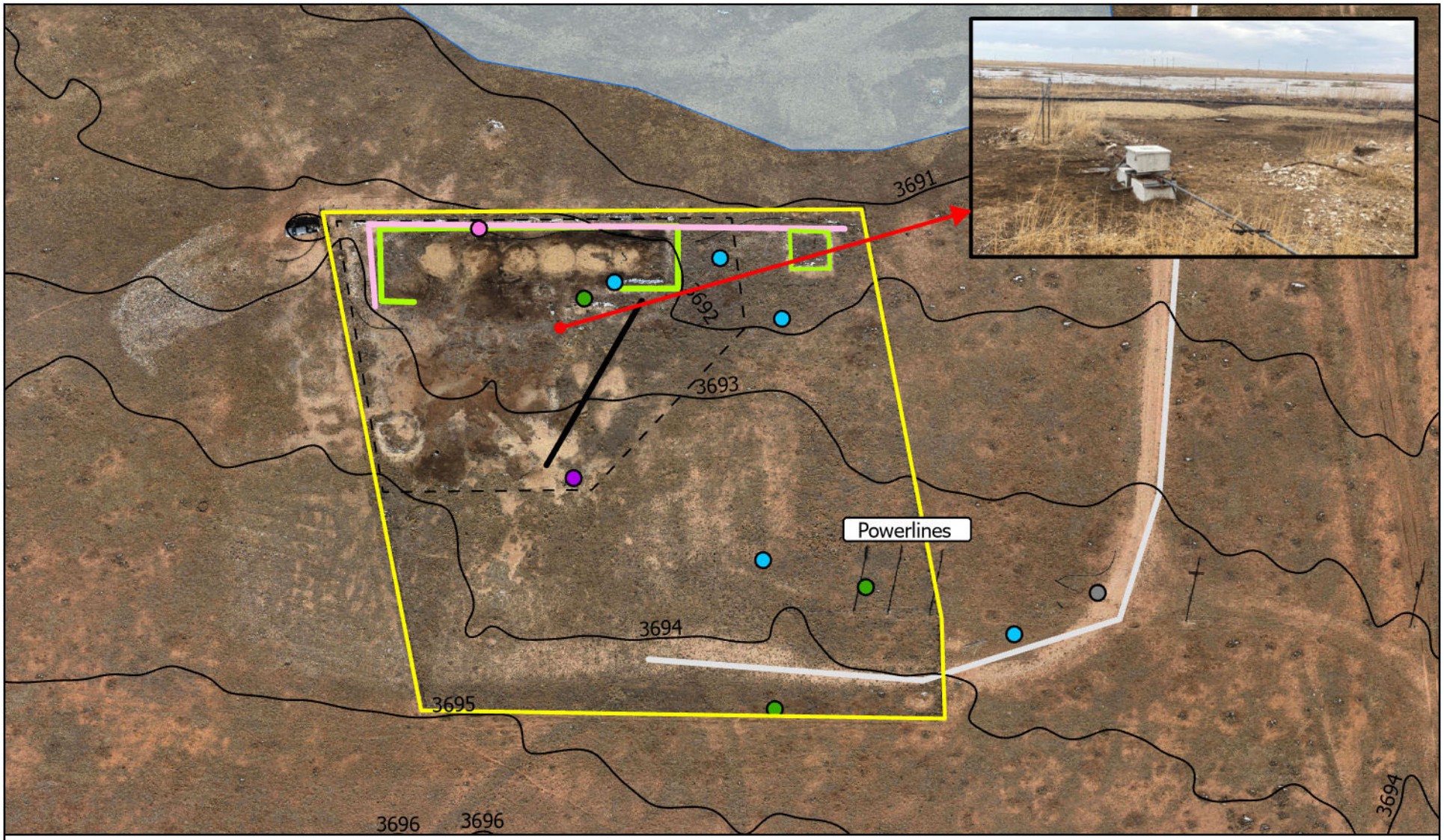

INTERA Source(s): Imagery from INTERA Drone (2023)

Figure 3
Site Conditions
Reed Estate #001 Orphan Wellsite
Lea County, NM
Site Assessment & Characterization Report

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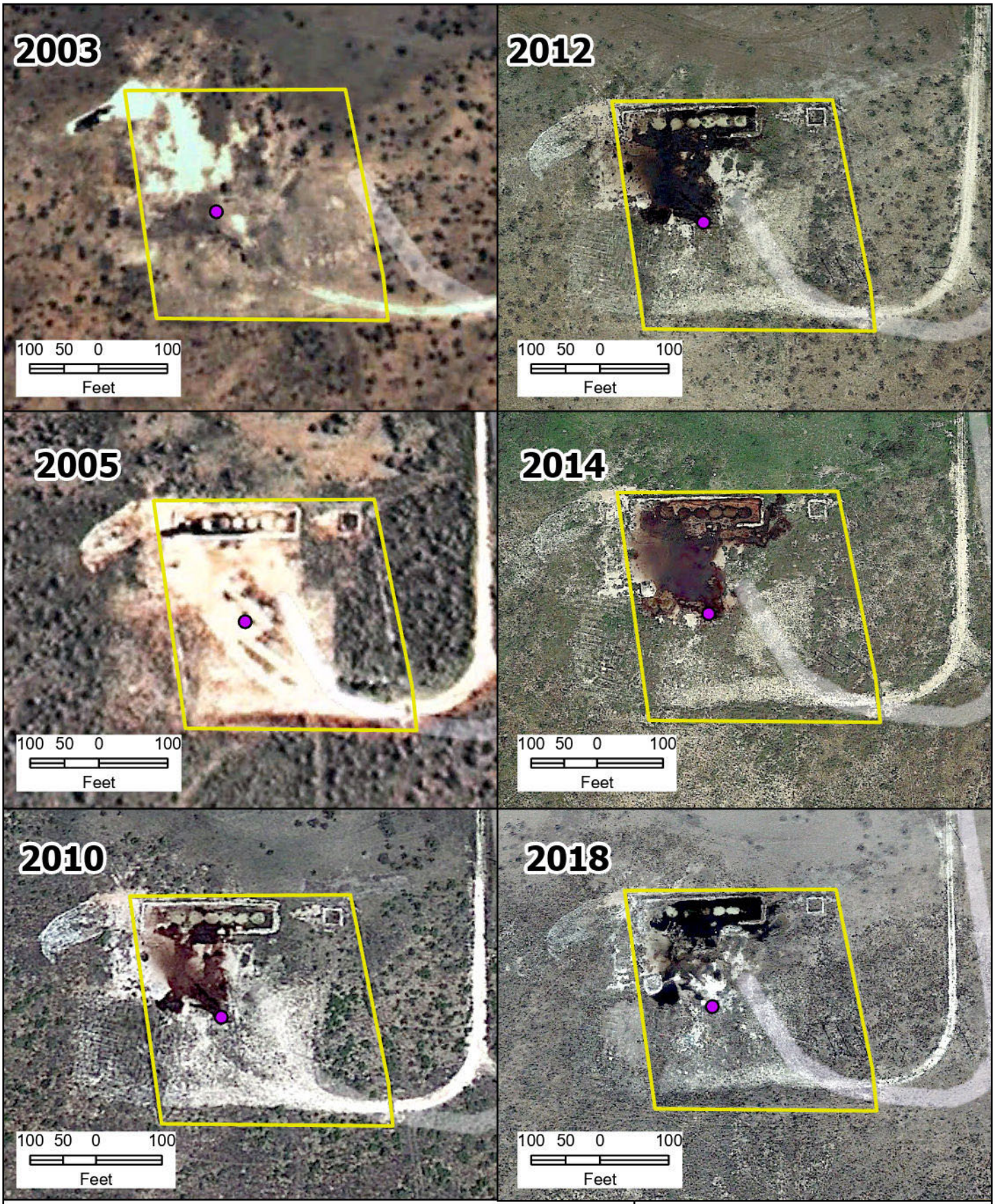

Figure 4
Historical Imagery Timeline
Reed Estate #001 Orphan Wellsite
Lea County, NM
Site Assessment & Characterization Report

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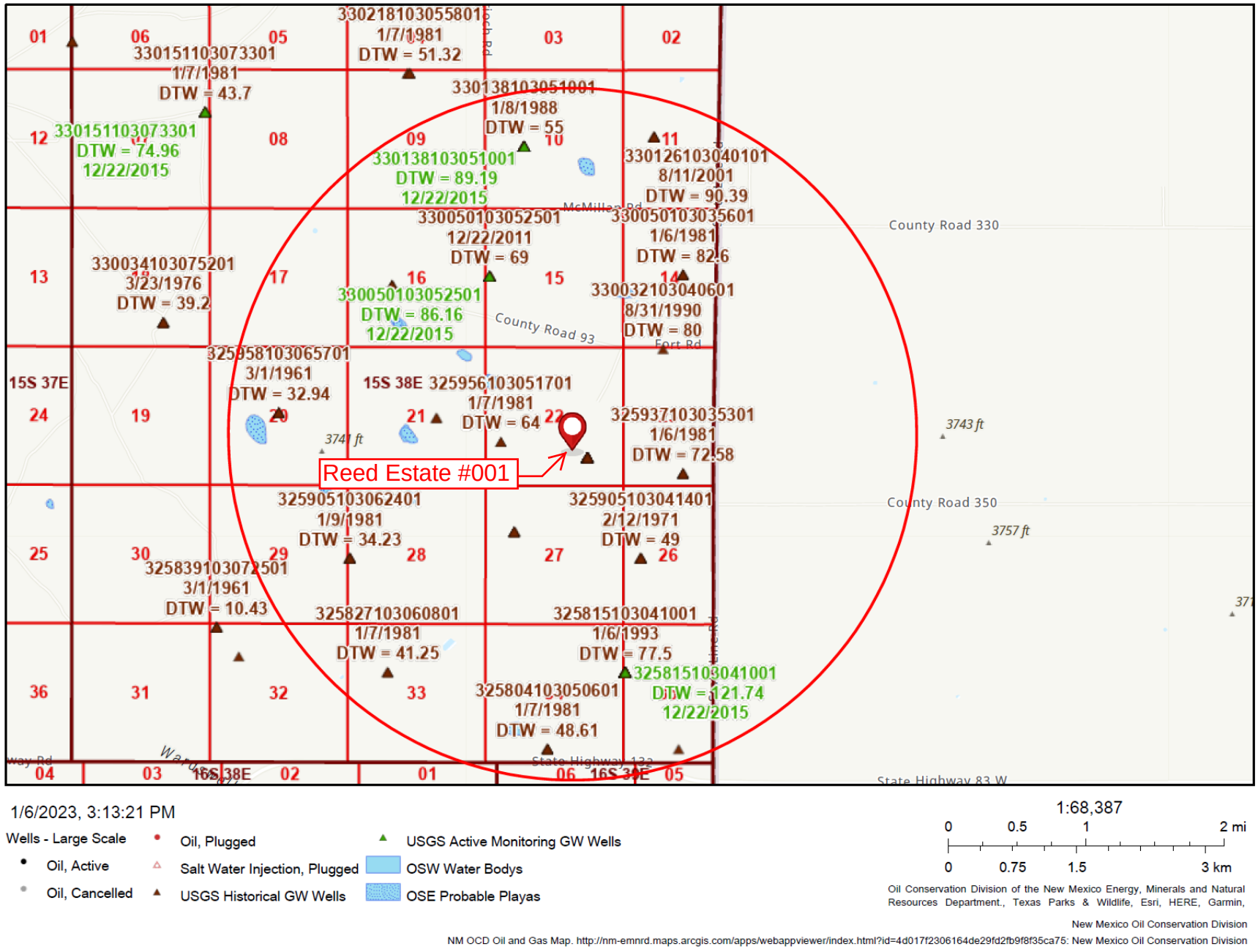
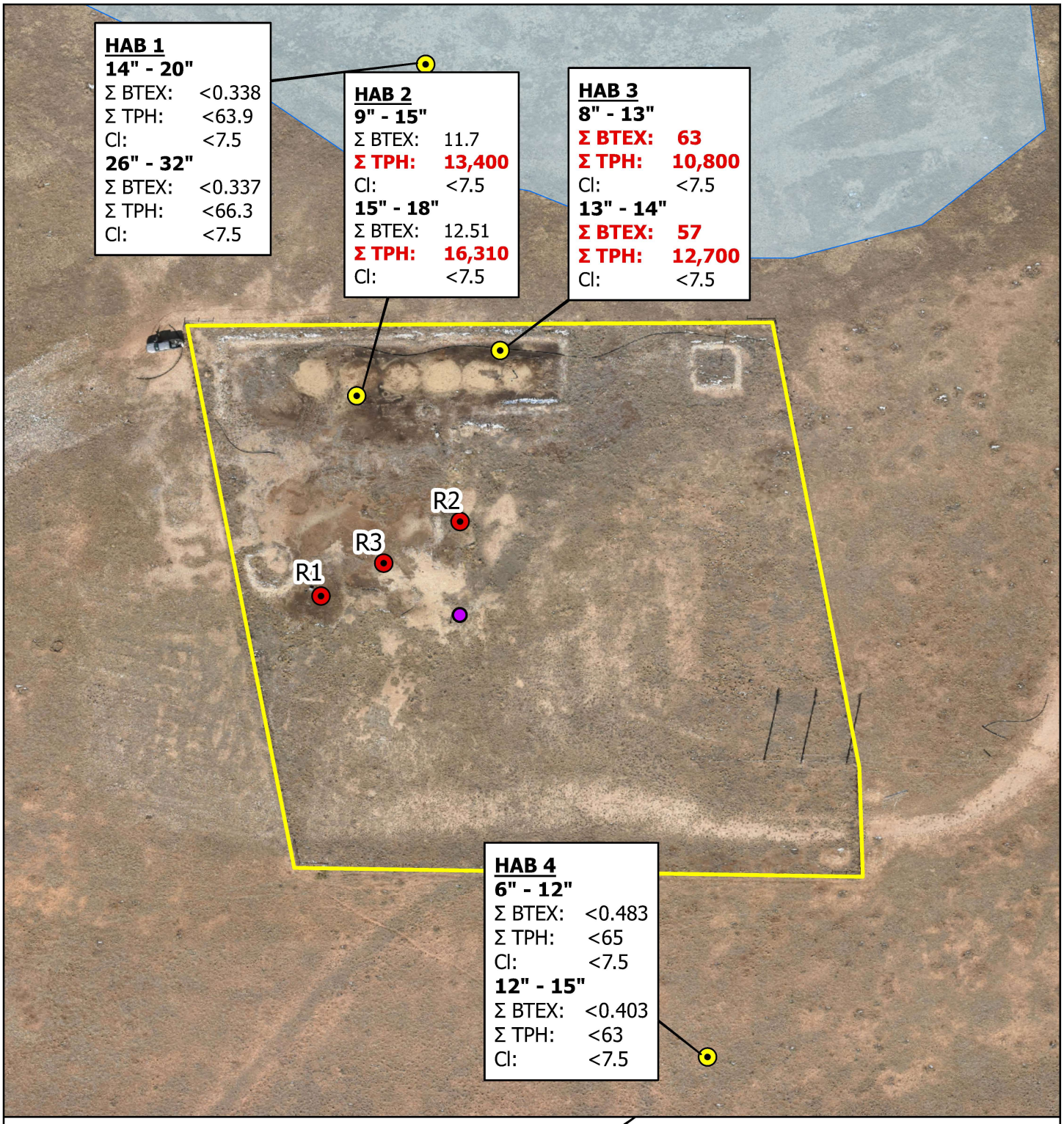


Figure 5. Well Locations and Water Levels within 2.5 mile Vicinity

Site Assessment & Characterization Report, Reed Estate #001 Orphan Wellsite, Lea County, NM



Hand Auger Boring (HAB) and Sampling Locations

Hand Auger Boring Locations with Refusal (R) < 5 inches

Well Monument Location

Fence

Playa Lake

Sample ID
Sample Depth
Contaminant results in mg/kg (milligrams per kilogram)

Bold/Red indicates value in excess of the 19.15.29 NMAC Release Limits Standards.

Note: BTEX = Benzene, ethylbenzene, toluene, xylene
TPH = Total Petroleum Hydrocarbons
< xx : below reporting limit
Cl = Chloride
All samples collected 1/27/2023.

N

100 50 0 100

Feet

INTERA

Source(s): Imagery from INTERA drone (2023)

Figure 6
Preliminary Soil Sampling Results
Reed Estate #001 Orphan Wellsite
Lea County, NM
Site Assessment & Characterization Report

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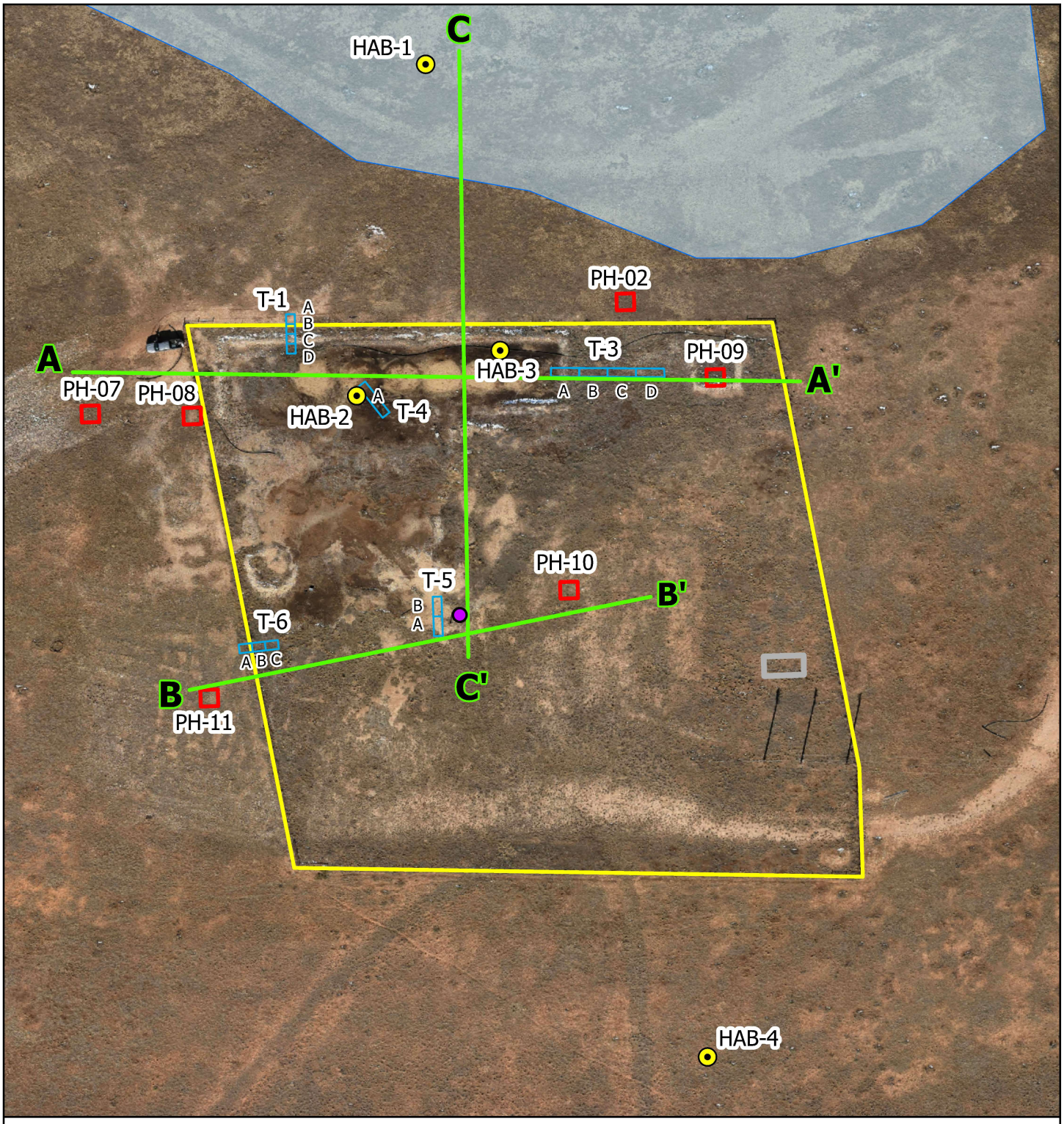

Hand Auger Boring (HAB) and Sampling Locations

Well Monument Location

Test Pit (T) (not to scale)

Pothole (PH) (not to scale)

Debris Pile

Fence

Playa Lake

Cross-Section Lines

N

80 40 0 80

Feet

Figure 7
Soil Investigation Locations with Cross-Section Lines
Reed Estate #001 Orphan Wellsite
Lea County, NM
Site Assessment & Characterization Report

INTERA

Source(s): INTERA drone imagery (2023)

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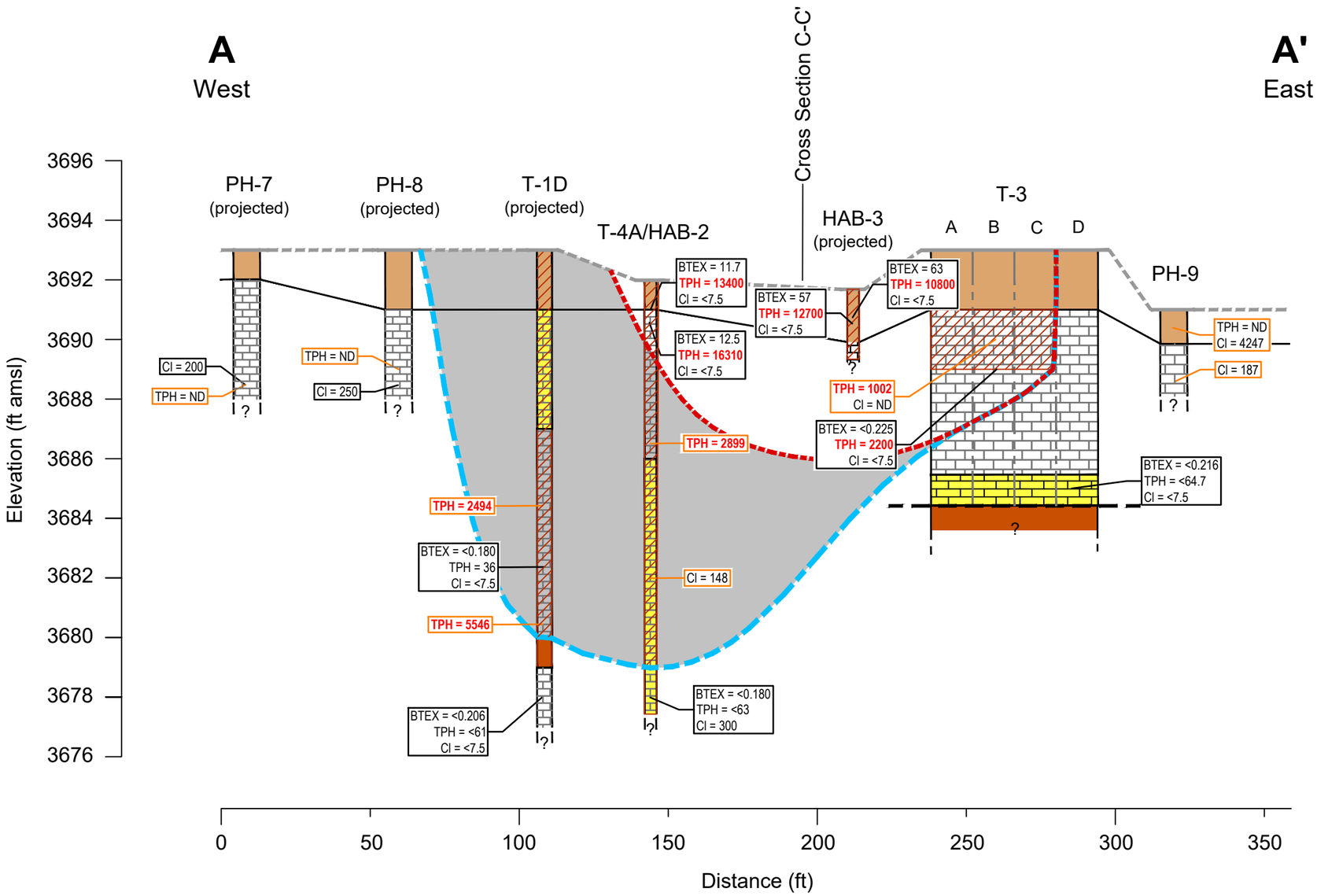


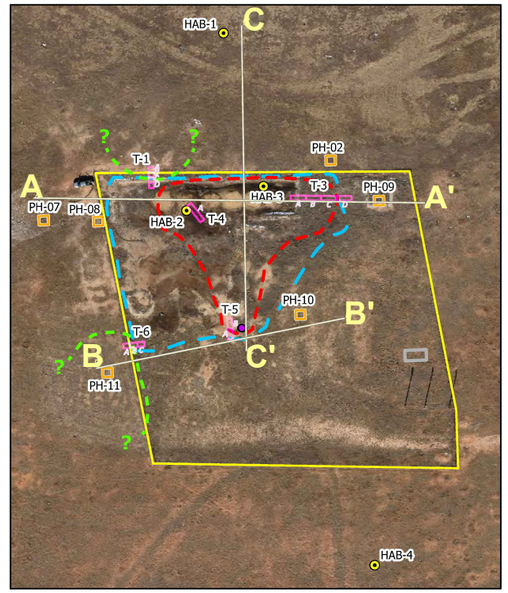
Note(s):
Red/Bold indicates values in excess of 19.15.29 NMAC Release Limits
(TPH = 100 mg/kg; Cl = 600 mg/kg; BTEX = 50 mg/kg; Benzene = 10mg/kg).
Ft amsl: feet above mean sea level.
ND: Non-detect
BTEX: benzene + ethylbenzene + toluene + xylenes.
TPH: MRO + DRO + GRO

- Minimum hydrocarbon boundary based on lab results
- Maximum hydrocarbon boundary based on field observations and field proxy data

XX = XX — Lab Data (mg/kg)

XX = XX — Field Proxy Data (mg/kg)

- Organic Clay
- Well cemented Caliche
- Poorly cemented Caliche w/ Silty Sand
- Silica cemented paleosol
- Suspected contamination with data gaps
- Hydrocarbon staining/odor
- Excavator Refusal
- Estimated minimum hydrocarbon contamination boundary
- Estimated maximum hydrocarbon contamination boundary



Cross Section Location Map

Figure 8a
A - A' Cross-section
Reed Estate #001 Orphan Wellsite
Lea County, NM
Site Assessment & Characterization Report

INTERA

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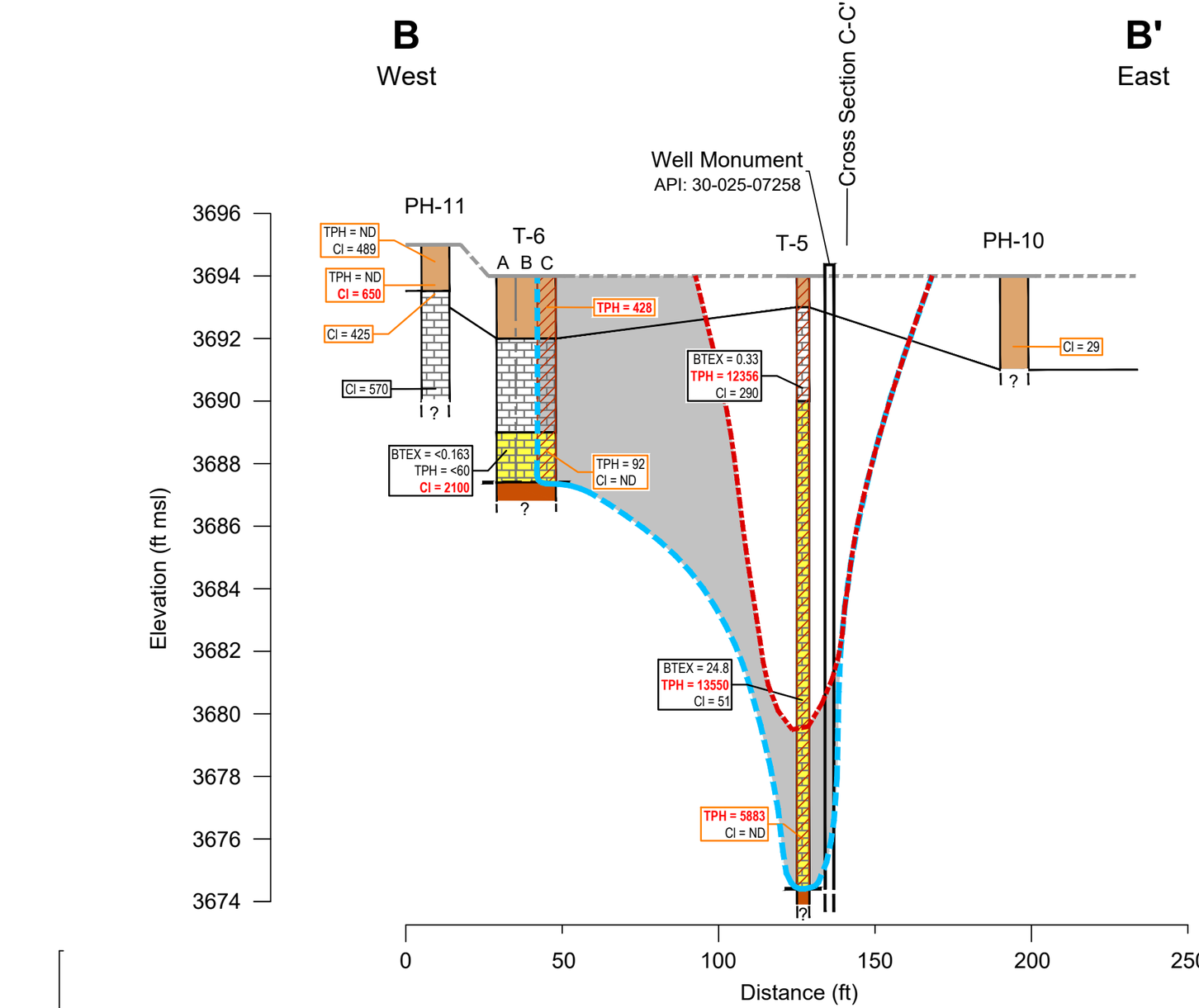

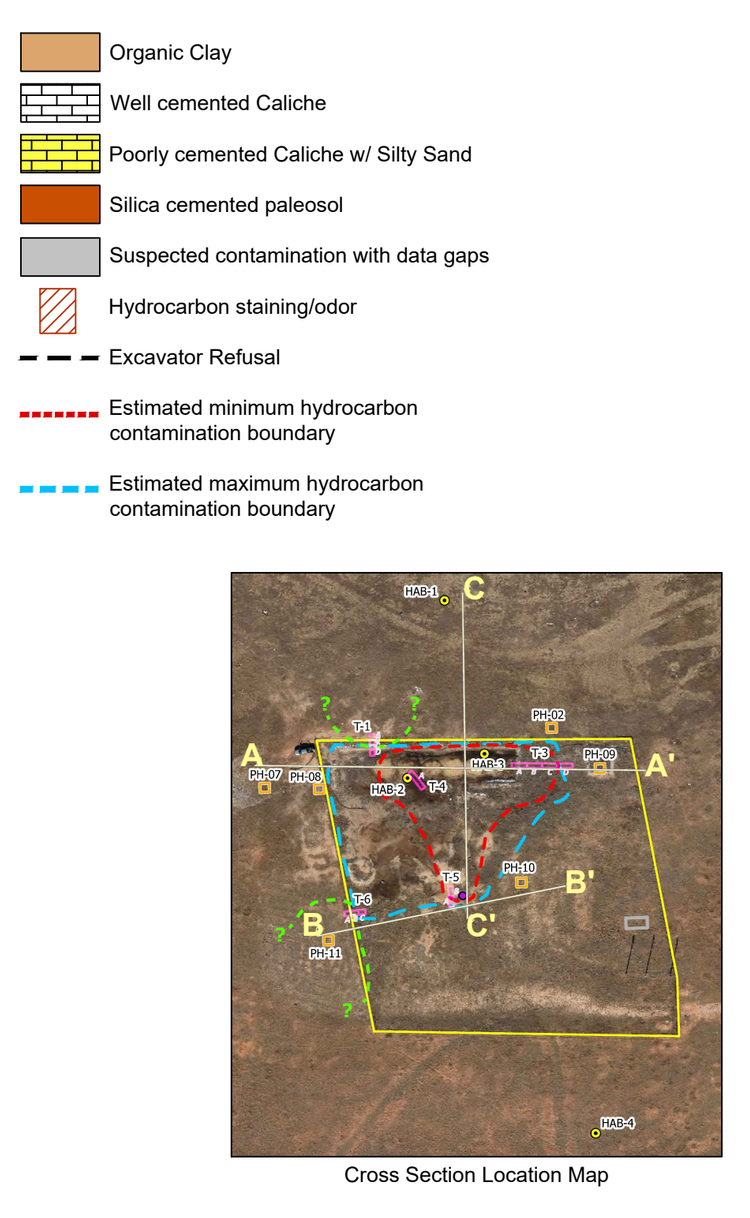

Cross Section Location Map

Note(s):
Red/Bold indicates values in excess of 19.15.29 NMAC Release Limits
(TPH = 100 mg/kg; Cl = 600 mg/kg; BTEX = 50 mg/kg; Benzene = 10mg/kg).
Ft amsl: feet above mean sea level.
ND: Non-detect
BTEX: benzene + ethylbenzene + toluene + xylenes.
TPH: MRO + DRO + GRO

- Minimum hydrocarbon boundary based on lab results
- Maximum hydrocarbon boundary based on field observations and field proxy data

XX = XX — Lab Data (mg/kg)

XX = XX — Field Proxy Data (mg/kg)

Figure 8b
B - B' Cross-section
Reed Estate #001 Orphan Wellsite
Lea County, NM
Site Assessment & Characterization Report

INTERA

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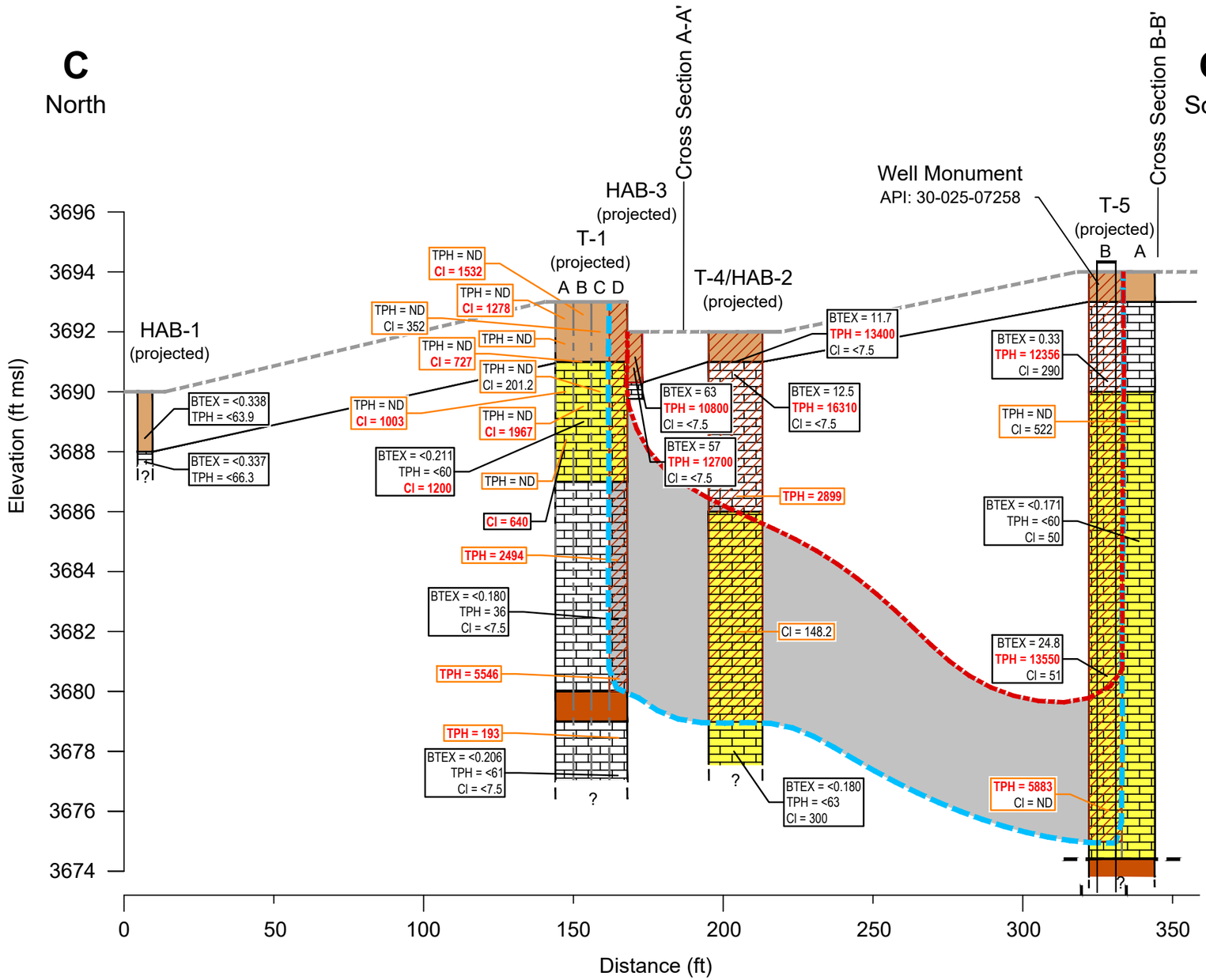

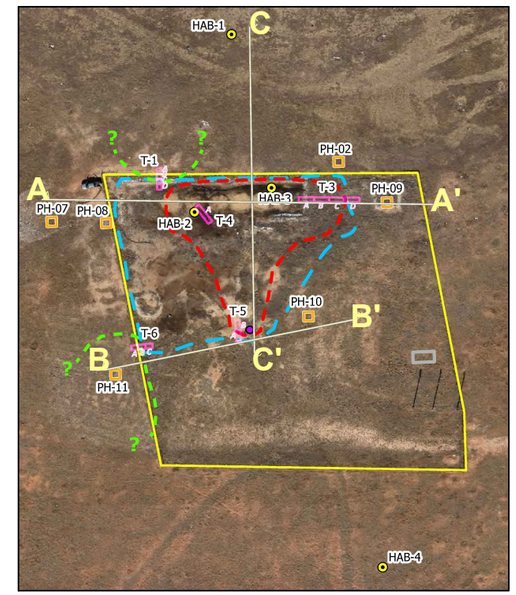

Cross Section Location Map

Note(s):
Red/Bold indicates values in excess of 19.15.29 NMAC Release Limits
(TPH = 100 mg/kg; CI = 600 mg/kg; BTEX = 50 mg/kg; Benzene = 10mg/kg).
Ft amsl: feet above mean sea level.
ND: Non-detect
BTEX: benzene + ethylbenzene + toluene + xylenes.
TPH: MRO + DRO + GRO

- Minimum hydrocarbon boundary based on lab results
- Maximum hydrocarbon boundary based on field observations and field proxy data

XX = XX — Lab Data (mg/kg)

XX = XX — Field Proxy Data (mg/kg)

INTERA

Figure 8c
C - C' Cross-section
Reed Estate #001 Orphan Wellsite
Lea County, NM
Site Assessment & Characterization Report

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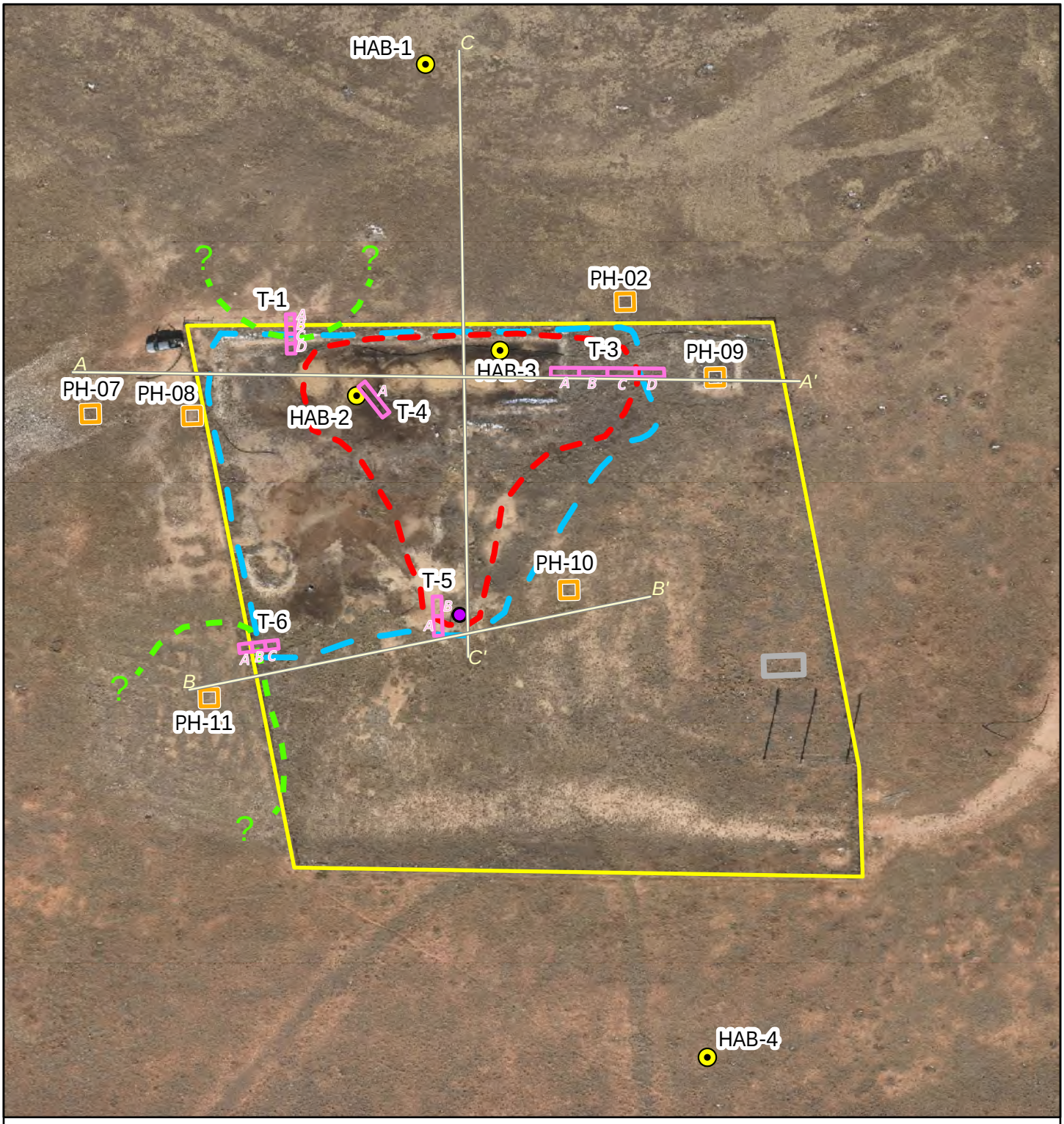


Hand Auger Boring (HAB) and Sampling Locations

Well Monument Location

Test Pit (T) (not to scale)

Pothole (PH) (not to scale)

Debris Pile

Fence

Estimated Maximum TPH (MRO+DRO+GRO) Boundary = 100 mg/kg release limit*

Estimated Minimum TPH (MRO+DRO+GRO) Boundary = 100 mg/kg release limit*

Estimated Chloride Boundary = 600 mg/kg release limit*

Cross-section

N

80 40 0 80

Feet

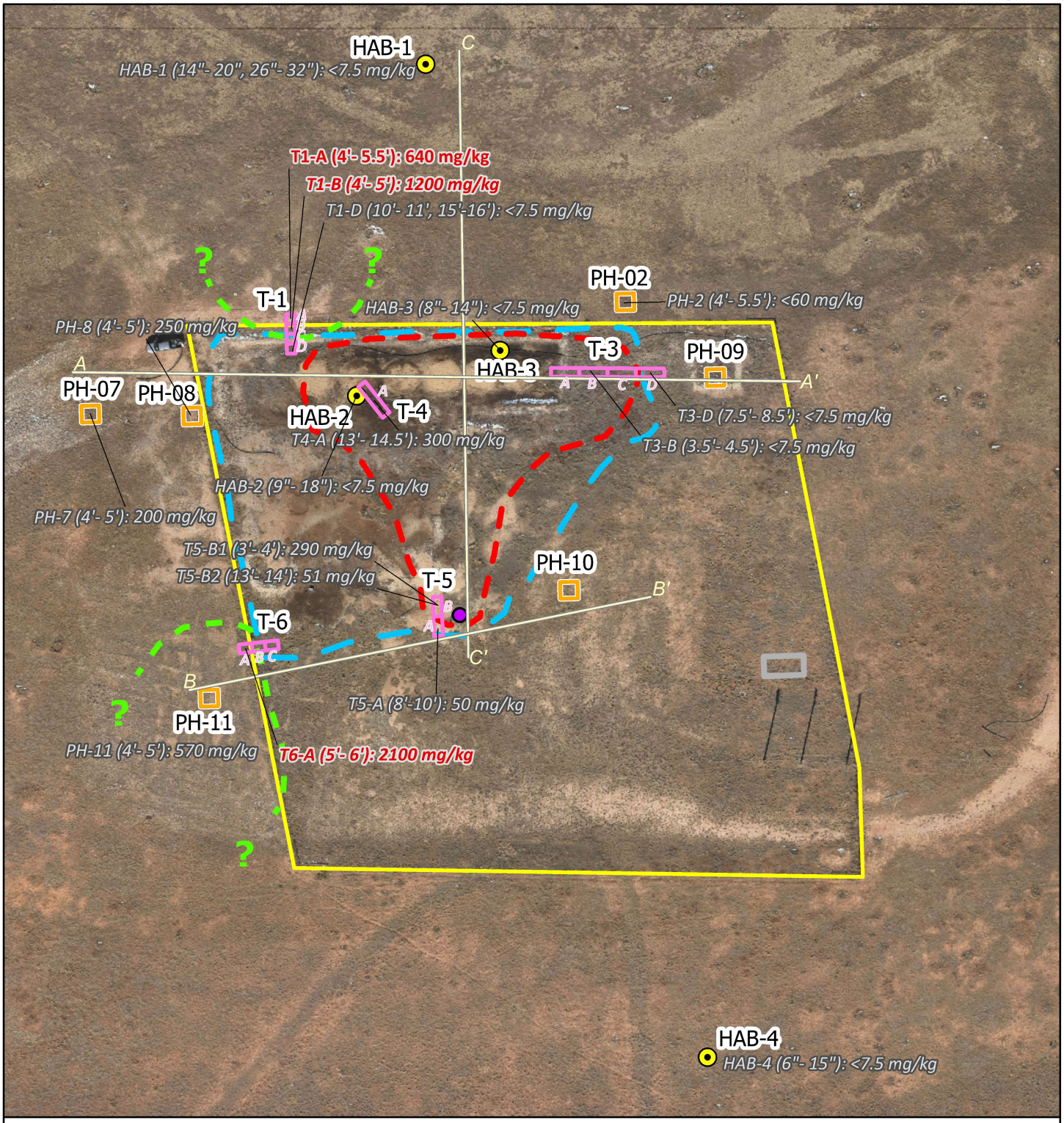
*Remediation requirement in 19.15.29.12 NMAC where depth to groundwater is <50 ft

INTERA

Source(s): INTERA drone imagery (2023)

Figure 9
Soil Contamination Delineation
Reed Estate #001 Lea County, NM
Site Assessment & Characterization

FILE: S:\ABQ\NMGSD.M005.OCD\Reed_Estate\Graphics\MapDocs\OCD_Reed_Estate_remediation.aprx Layout: Figure 8 - soil contamination Date: 5/11/2023



Hand Auger Boring (HAB) and Sampling Locations

Well Monument Location

Test Pit (T) (not to scale)

Pothole (PH) (not to scale)

Debris Pile

Fence

Estimated Maximum TPH (MRO+DRO+GRO) Boundary = 100 mg/kg release limit*

Estimated Minimum TPH (MRO+DRO+GRO) Boundary = 100 mg/kg release limit*

Estimated Chloride Boundary = 600 mg/kg release limit*

Cross-section

N

80 40 0 80

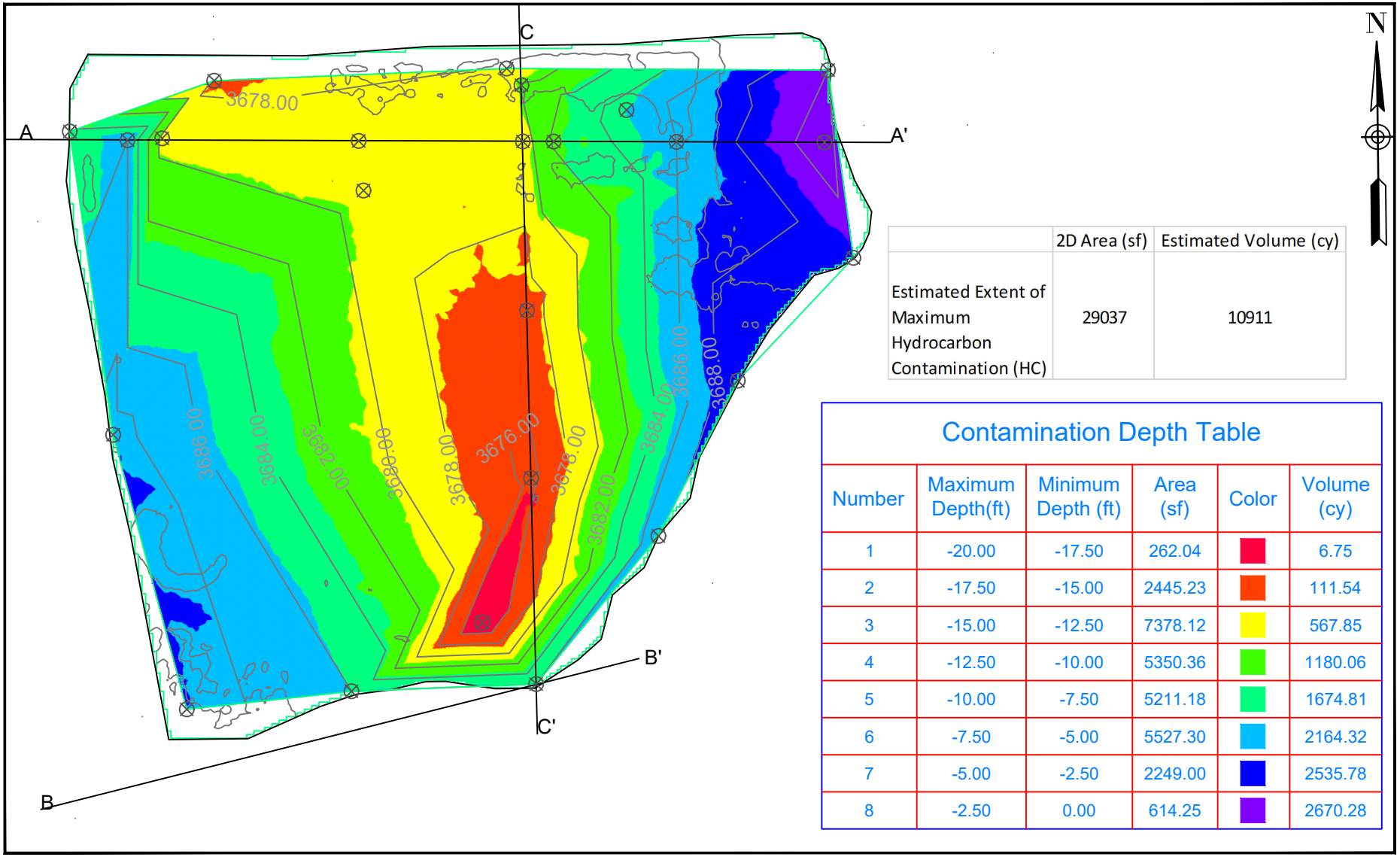
Feet

Note(s): Values represent chloride concentrations as reported by the lab.
Red/Bold indicates values in excess of release limit.
**Remediation requirement in 19.15.29.12 NMAC where depth to groundwater is <50 ft*
All samples were collected on March 14-16 2023.

INTERA Source(s): INTERA drone imagery (2023)

Figure 10
Soil Chloride Contamination
Reed Estate #001, Lea County, NM
Site Assessment and Characterization

FILE: S:\ABQ\NMGSD.M005.OCD\Reed_Estate\Graphics\MapDocs\OCD_Reed_Estate_remediation.aprx Layout: Figure 9 - soil Cl contamination Date: 6/5/2023



	2D Area (sf)	Estimated Volume (cy)
Estimated Extent of Maximum Hydrocarbon Contamination (HC)	29037	10911

Contamination Depth Table

Number	Maximum Depth(ft)	Minimum Depth (ft)	Area (sf)	Color	Volume (cy)
1	-20.00	-17.50	262.04		6.75
2	-17.50	-15.00	2445.23		111.54
3	-15.00	-12.50	7378.12		567.85
4	-12.50	-10.00	5350.36		1180.06
5	-10.00	-7.50	5211.18		1674.81
6	-7.50	-5.00	5527.30		2164.32
7	-5.00	-2.50	2249.00		2535.78
8	-2.50	0.00	614.25		2670.28

0 40 80 Feet

Source(s): INTERA Drone Imagery 2023

INTERA

Legend

- 3682.00 Contamination Depth Contour 2' CI
- HC Boundary
- Ground Surface (NAVD88)
- Depth Locations
- A - A' Cross Section
- B - B' Cross Section
- C - C' Cross Section

Figure 11a. Volume Estimate for Maximum Hydrocarbon Contamination Extent

Reed Estate #001 Orphan Wellsite
Lea County, NM
Site Assessment & Characterization Report

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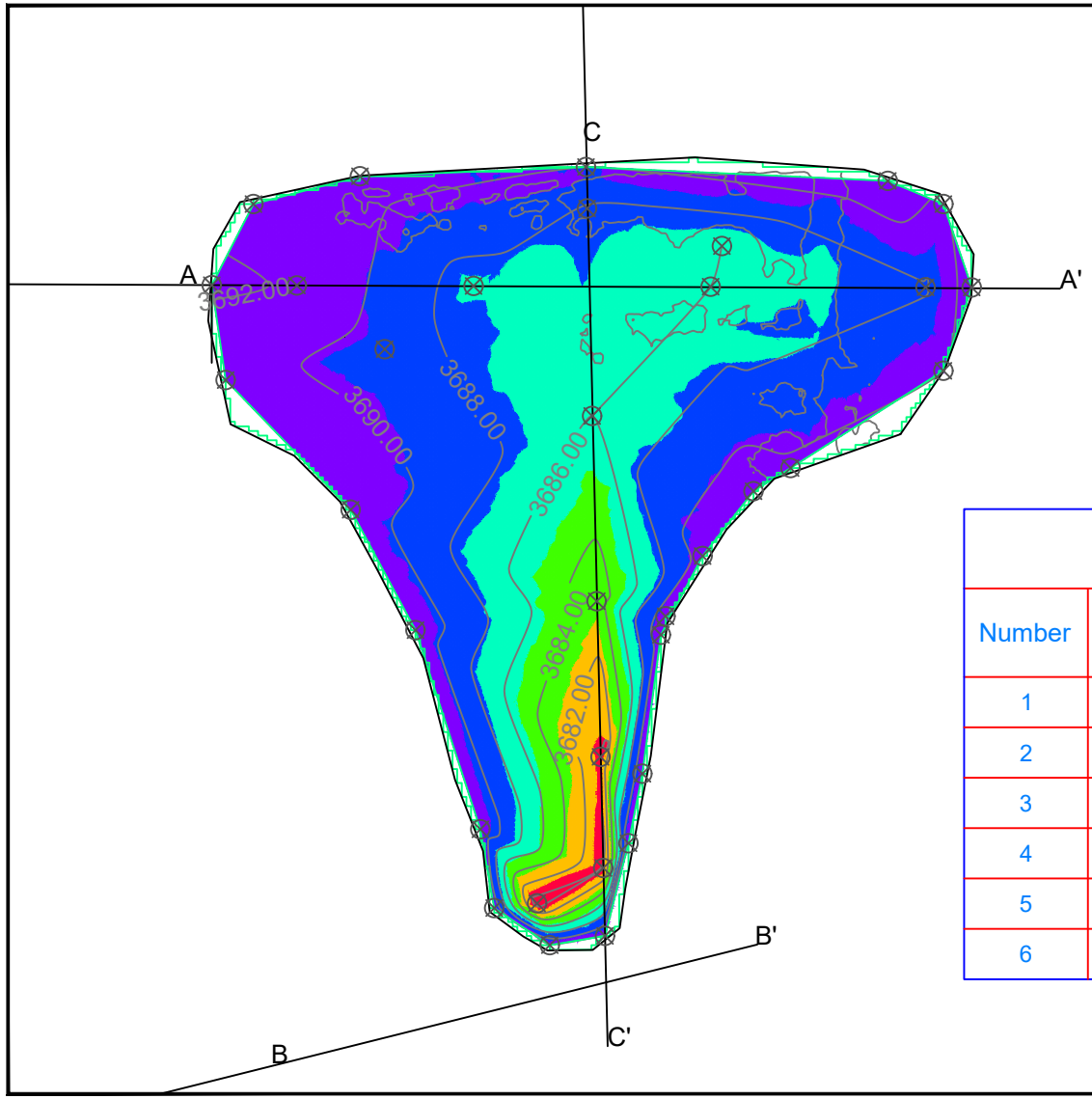

	2D Area (sf)	Estimated Volume (cy)
Estimated Extent of Minimum Hydrocarbon Contamination (HC)	14381	2380

Contamination Depth Table

Number	Maximum Depth (ft)	Minimum Depth (ft)	Area (sf)	Color	Volume (cy)
1	-15.00	-12.50	121.12		2.75
2	-12.50	-10.00	499.84		31.15
3	-10.00	-7.50	1049.40		102.92
4	-7.50	-5.00	3960.55		283.19
5	-5.00	-2.50	5040.69		742.10
6	-2.50	0.00	3709.69		1218.27

0 40 80 Feet

Source(s):INTERA Drone Imagery 2023

INTERA

Legend

- 3690.00 Contamination Depth Contour 2' CI
- HC Boundary
- Ground Surface (NAVD88)
- Depth Locations
- A - A' Cross Section
- B - B' Cross Section
- C - C' Cross Section

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Figure 11b. Volume Estimate for Minimum Hydrocarbon Contamination Extent

Reed Estate #001 Orphan Wellsite
Lea County, NM
Site Assessment & Characterization Report

Tables

TABLE 1
Preliminary Soil Sampling Laboratory Analytical Results
Reed Estate #001 Orphan Wellsite, Lea County, New Mexico
Site Assessment and Characterization Report

Auger/ Sample ID			HAB1		HAB2		HAB3		HAB4		19.15.29 NMAC Release Limits*
Analytes			14"-20"	26"-32"	9"-15"	15"-18"	8"-13"	13"-14"	6"-12"	12"15"	
S.U.		pH	7.25	7.81	8.63	7.79	8.17	7.89	8.05	8.08	-
mg/kg	Soil ions	Bromide	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	
		Chloride	< 7.5	< 7.5	< 7.5	< 7.5	< 7.5	< 7.5	< 7.5	< 7.5	600
		Fluoride	2.3	2.2	2.0	1.6	2.5	2.4	< 1.5	< 1.5	
		Nitrate (As N)	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	3.3	6.2	
		Nitrite (As N)	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	
		Sulfate	26	29	49	310	9.9	12	16	18	
meq/ 100g		Cation Exchange Capacity	36	35	25	25	37	33	18	17	-
mg/kg	Soil Metals	Magnesium	3600	3800	6600	9100	2500	2500	1900	1600	
		Potassium	4800	5000	2300	2200	2500	3200	1700	1500	
		Sodium	100	100	310	330	440	470	< 99	< 98	
		Calcium	2800	3800	35000	43000	2600	3500	33000	32000	
	BTEX	Benzene	< 0.038	< 0.037	< 0.81	0.81	< 0.23	< 0.37	< 0.053	< 0.045	50 (total BTEX) and 10 (Benzene)
		Toluene	< 0.075	< 0.075	< 1.6	< 1.6	< 0.23	< 0.37	< 0.11	< 0.089	
		Ethylbenzene	< 0.075	< 0.075	2.7	3.3	11	11	< 0.11	< 0.089	
		Xylenes, Total	< 0.15	< 0.15	9.0	8.4	52	46	< 0.21	< 0.18	
	TPH	Gasoline Range Organics (GRO)	< 7.5	< 7.5	**500**	**510**	**1600**	**1700**	< 5.0	< 8.9	100
		Diesel Range Organics (DRO)	< 9.4	< 9.8	**8900**	**8700**	**6400**	**7700**	< 10	< 9.1	
		Motor Oil Range Organics (MRO)	< 47	< 49	**4000**	**7100**	**2800**	**3300**	< 50	< 45	

Notes:

*Remediation requirement in 19.15.29.12 NMAC where depth to groundwater is <50 ft and reclamation requirement in 19.15.29.13(D)(1) NMAC

Red/Bold indicates values in excess of release limits

14"-20": indicates depth of soil sample

Samples collected on 1/27/23

S.U.: standard units

< xx : below detection limit

HAB: Hand Auger Boring

TPH: Total Petroleum Hydrocarbons

BTEX: Benzene, ethylbenzene, toluene, xylene

Method blanks and spiked method blanks run for each analyte passed quality control requirements.

See laboratory analyical report for complete list of analyzed constituents.

TABLE 2

Trenching Investigation Field Screening Data

Reed Estate #001 Orphan Wellsite, Lea County, New Mexico

Site Assessment and Characterization Report

Location ID	Section	Interval (ft bgs)	PID (ppm)	SC (uS/cm)	Field Comments	Field Proxy TPH (mg/kg)	Field Proxy Cl (mg/kg)
T1	A	0 - 1	1.1	1950	clay, dark brown, no staining observed, no odor	ND	1278
T1	A	1 - 2	0.4	-	caliche, gray/brown, no staining observed, no odor	ND	-
T1	A	2 - 4	1.0	1572	silty sand, tan, broken up caliche, no staining observed, no odor	ND	1003
T1	A	4 - 5.5	0.4	1150	silty sand, tan, broken up caliche, no staining observed, no odor	ND	697
T1	B	0 - 1	0.1	2300	clay, dark brown, no staining observed, no odor	ND	1532
T1	B	1 - 3	1.3	1192	clay, dark brown, no staining observed, no odor	ND	727
T1	B	3 - 4	0.1	2898	silty sand, tan, broken up caliche, no staining observed, no odor	ND	1967
T1	B	4 - 5	0.4	2030	silty sand, tan, broken up caliche, no staining observed, no odor	ND	1336
T1	C	0 - 2	0.1	676	clay, dark brown, no staining observed, no odor	ND	352
T1	C	2 - 4	0.3	468	silty sand, tan, broken up caliche, no staining observed, no odor	ND	201
T1	D	0 - 2	-	1050	clay, tan/dark brown, dark staining, PHC odor	-	624
T1	D	8 - 9	325	-	broken up caliche, unable to conduct SC screening	2494	-
T1	D	10 -11	355	-	visible hydrocarbon contamination, strong PHC odor	2723	-
T1	D	12 - 13	724	-	visible hydrocarbon contamination above competent layer at 13'	5546	-
T1	D	14 - 15	242	-	weathered caliche, no staining observed, no odor	1859	-
T1	D	15 - 16	4.2	290	weathered caliche, no staining observed, no odor	ND	72
T3	B	2 - 4	130	156	caliche, gray, no staining observed, strong chemical smell	1002	ND
T3	B2	3.5 - 4.5	-	-	sampled adjacent to T-3B, strong chemical smell	-	-
T3	D	7.5 - 8.5	0.5	120	silty sand, white, broken up caliche, refusal at silica cemented paleosol	ND	ND
T4	A	5 - 6	378	-	caliche, green/gray, strong PHC odor	2899	-
T4	A	10 - 12	-	395	silty sand, tan/pink, PHC odor, no staining observed	-	148
T4	A	13 - 14.5	3.0	80	silty sand, tan/pink, broken up caliche, slight PHC odor, no staining observed	ND	ND
T5	A	4 - 6	0.1	910	silty sand, tan/gray, broken up caliche, no odor, no staining observed	ND	522
T5	A	8 - 10	0	450	silty sand, tan, iron staining, no odor	ND	188
T5	B	3 - 4	1034	-	clay, dark brown, strong PHC odor, staining observed	7918	-
T5	B	13 - 14	2007	-	silty sand, tan/green, broken up caliche, strong PHC odor, staining observed	15361	-
T5	B	17 - 19	768	156	silty sand, tan/green, strong PHC odor, staining observed	5883	ND
T6	A	5 - 6	1.5	2113	broken up caliche, tan/gray, no odor, no staining observed	ND	1396
T6	C	0 - 2	55	-	clay, dark brown, strong PHC odor, staining observed	428	-
T6	C	5 - 6.5	11	145	silty sand, tan/gray, broken up caliche, iron staining, slight chemical odor	92	ND
PH - 2	-	4 - 5.5	0.5	199	silty sand, tan, broken up caliche, no odor, no staining observed	ND	6
PH - 7	-	4 - 5	-	1486	broken up caliche, gray, no odor, no staining obseved	-	941
PH - 8	-	3 - 5	0.2	580	broken up caliche, no odor, no staining observed	ND	283
PH - 9	-	0.5-0.6	0.1	775	located in center of bermed area, refusal at 14.5"	ND	424
PH - 9	-	1.2 - 3	-	448	caliche, no odor, no staining observed	-	187
PH - 10	-	2 - 2.5	-	231	clay, broken up caliche, dark brown, no odor, no staining observed	-	29
PH - 11	-	0.5	0.1	864	clay, dark brown, no staining observed, no odor	ND	489
PH - 11	-	1.3-1.4	0	1086	clay, dark brown, no staining observed, no odor	ND	650
PH - 11	-	1.5 - 2	-	776	broken up caliche, gray, no odor, no staining obseved	-	425
PH - 11	-	4.5 - 5	-	1761	broken up caliche, gray, no odor, no staining obseved	-	1141

Notes:

Red/Bold indicates values in excess of remediation requirements in 19.15.29.12 NMAC where depth to groundwater is <50 ft

Samples collected March 14-16, 2023

- = Data not collected

SC: Specific conductance

PID: Photoionization detector

ND: Non-detect

TPH: Gasoline Range Organics (GRO) + Diesel Range Organics (DRO) + Motor Oil Range Organics (MRO)

Field Proxy data derived from linear correlation between lab results and field screening for SC

Field Proxy TPH = ND when PID readings < 5 ppm

Field Proxy Chloride = ND when SC < 170 µS/cm

TABLE 3
Trenching Investigation Laboratory Analytical Results - Soil Sampling
Reed Estate #001 Orphan Wellsite, Lea County, New Mexico
Site Assessment and Characterization Report

Trench / Sample ID			T1				T4	T3		T5			T6	PH-2	PH-7	PH-8	PH-11	19.15.29 NMAC Release Limits*
Analytes			T1-A (4'-5.5')	T1-B (4'-5')	T1-D (10'-11')	T1-D (15'-16')	T4-A (13'-14.5')	T3-D (7.5'-8.5')	T3-B2 (3.5'4.5')	T5-A (8'-10')	T5-B (3'-4')	T5-B (13'-14')	T6-A (5' - 6')	PH-2 (4'-5.5')	PH-7 (4'-5')	PH-8 (4'-5')	PH-11 (4'-5')	
S.U.		pH	9.43	7.9	8.89	8.53	8.96	8.76	8.33	8.63	9.1	9.18	8.09	NA	8.31	NA	NA	-
mg/kg	Soil Ions	Bromide	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	NA	<1.5	NA	NA	
		Chloride	**640**	**1200**	<7.5	<7.5	300	<7.5	<7.5	50	290	51	**2100**	<60	200	250	570	600
		Fluoride	9.6	<1.5	9.4	6.8	6.1	2.1	1.5	9.3	3.4	12	5.5	NA	3.3	NA	NA	
		Nitrate (As N)	2.1	<1.5	5	1.8	<1.5	<1.5	2.1	<1.5	<1.5	<1.5	4.7	NA	<1.5	NA	NA	
		Nitrite (As N)	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	NA	<1.5	NA	NA	
		Sulfate	340	2900	590	290	230	37	<7.5	210	8.8	10	33	NA	1200	NA	NA	
meq/100g		Cation Exchange Capacity	12	14	14	6	6	8	8	10	15	24	10	NA	11	NA	NA	-
mg/kg	Soil Metals	Magnesium	3700	5300	8800	8000	8000	5600	4700	4500	1600	6700	6500	NA	13000	NA	NA	
		Potassium	1600	1600	1300	410	320	630	800	1900	1700	1200	1300	NA	600	NA	NA	
		Sodium	1500	1900	530	150	560	110	<98	450	1200	470	1100	NA	650	NA	NA	
		Calcium	180000	19000	200000	240000	260000	300000	190000	75000	25000	140000	250000	NA	240000	NA	NA	
	BTEX	Benzene	NA	<0.023	<0.020	<0.023	<0.020	<0.024	<0.025	<0.019	<0.081	<0.40	<0.018	NA	NA	NA	NA	
		Toluene	NA	<0.047	<0.040	<0.046	<0.040	<0.048	<0.050	<0.038	<0.16	<0.79	<0.036	NA	NA	NA	NA	50 (total BTEX) and 10 (Benzene)
		Ethylbenzene	NA	<0.047	<0.040	<0.046	<0.040	<0.048	<0.050	<0.038	<0.16	2.8	<0.036	NA	NA	NA	NA	
		Xylenes, Total	NA	<0.094	<0.080	<0.091	<0.080	<0.096	<0.10	<0.076	0.33	22	<0.073	NA	NA	NA	NA	
	TPH	Gasoline Range Organics (GRO)	NA	<4.7	<4.0	<4.6	<4.0	<4.8	<5	<3.8	**56**	**650**	<3.6	NA	NA	NA	NA	
		Diesel Range Organics (DRO)	NA	<9.3	36	<9.5	<9.9	<9.9	**1000**	<9.4	**9300**	**10000**	<9.4	NA	NA	NA	NA	100
		Motor Oil Range Organics (MRO)	NA	<46	<48	<47	<49	<50	**1200**	<47	**3000**	**2900**	<47	NA	NA	NA	NA	

Notes:

*Remediation requirement in 19.15.29.12 NMAC where depth to groundwater is <50 ft and reclamation requirement in 19.15.29.13(D)(1) NMAC

Red/Bold indicates values in excess of release limits

Samples collected March 14-16, 2023

S.U.: standard units

< xx : below detection limit

NA: Not analyzed

T: Trench

PH: Pothole

TPH: Total Petroleum Hydrocarbons

BTEX: Benzene, ethylbenzene, toluene, xylene

Method blanks and spiked method blanks run for each analyte passed quality control requirements.

See laboratory analyical report for complete list of analyzed constituents.

Appendix A

Photo Log

Photograph 1 -– Hand auger boring (HAB-1) profile at playa.

Photograph 2 -– Hand auger sampling at HAB-2.

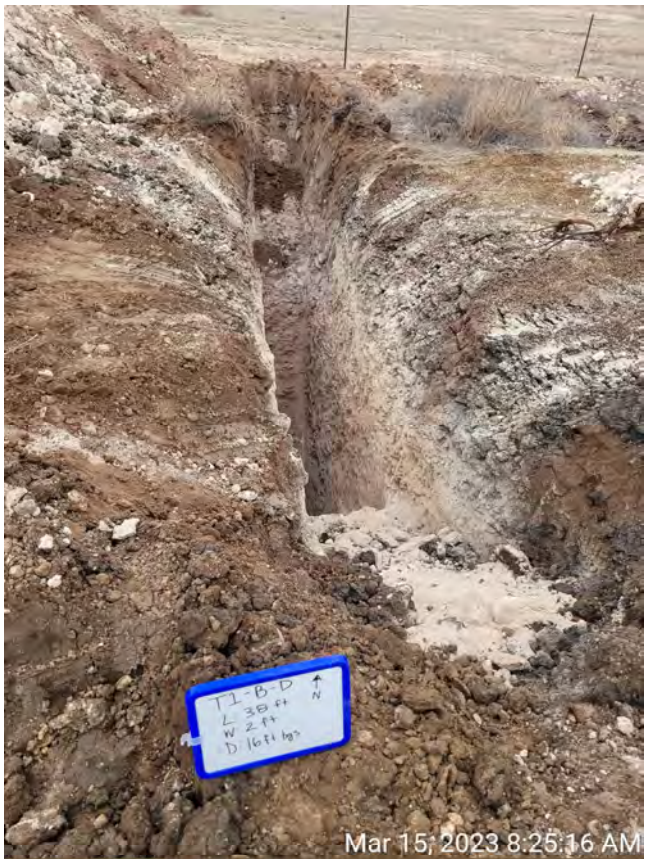
Photograph 3 -– Marking sample location at HAB-2.

Photograph 4 - Set up sampling equipment at HAB-3.

Photograph 5 - Soil cuttings of stained soil.

Photograph 6 - Soil cuttings of clean soil.

Photograph 7 -– Trench excavation of T-1A.



Photograph 8 -– Trench excavation of T-1B through T-1D.

Photograph 9 -– Trench excavation of T-3A through T-3D.

Photograph 10 -– Trench excavation of T-4.

Photograph 11 -– Trench excavation of T-5A through T-5B.

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Photograph 12 -– Trench excavation of T-6A.

Photograph 13 -– Trench excavation of T-6B through T-6C.

Photograph 14 -– Comparison of clean and stained caliche.

Photograph 15 -– Trench profile at T-4.

Photograph 16 -– Field screening and sampling equipment.

Photograph 17 -– Excavated material from T-1

Photograph 18 -– Staining observed at T-1.

Photograph 19 -– Excavator digging at T-1.

Photograph 20 -– Excavated material from T-3.

Photograph 21 -– Silica cemented paleosol encountered at T-3.

Photograph 22 -– Backfilling at T-5.

Photograph 23 -– Moving infrastructure to designated location.

Photograph 24 -– Looking north towards playa.

Appendix B

Field Notes and Forms

1230 offsite

1320 Met Erin from HEAL to dropp off samples and cooler

1325 Hed back to Carlsbad.

Summary: Collected 4 (3) point-composite samples. 1 at GM State Battery and 3 at West Eumont Unit #417.

SS-01 = GM state battery around battery tanks.

SS02 = West Eumont Unit #417 by poly lines

SS03 = West Eumont Unit #417 by manifold

SS04 = West Eumont Unit #417 by Battery tanks.

1500: Return to office.

OCD Reed Estate #001 Wellsite

1/27/2

Soil Sampling using Hand Auger

Weather Outlook: High of 54°F, Currently 34°F, Wind SW @ 10mph, Sunny All Day

Depart Office @ 0615 w/ Justin Kirkes & Dayna driving personal vehicle.

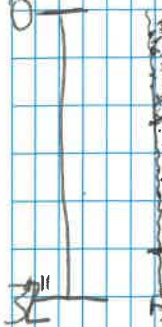
Arrive on location @ 0830

Survayed area outside Fence to choose first sample @ playa.

0855 assemble/prep equipment for 1st bore.

0915 - HAB1_14"-20" north of fence at playa lake's southern boundary.

Observations: No surface water, top soil is a bit muddy due to recent snow/precip. No signs of Hydrocarbons.



First 14" is dark brown, VFine grain soil, Saturated due to recent precip, V compacted

14"-26" less saturated and less compacted soil.

26"-30" same as above, but less saturated Lt-med brown.

30-32" - Caliche, hit refusal.

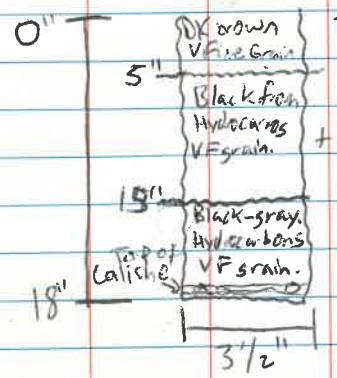
HAB2_26"-32" @ 0915

1/27/23

1020 HAB3 9'-15" sample collected

First sample in Berm area

Top soil is heavily saturated with Hydrocarbons. Heavy odor and visible staining. Hit refusal (caliche) @ 18"



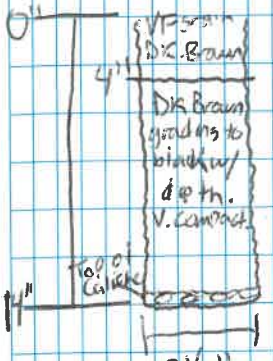
Top soil very fine grain, saturated from piccip & hydrocarbons. Very dark black + brown. 0-18" is contaminated. Bottom 3" was gray in color. Hit refusal, (caliche) @ 18". Very compact throughout bore.

1040 HAB4_15"-18" sample collected

Soil in bucket head of Auger is difficult to extract. Soil is very compact and is slowing down sampling process.

1/27/23

11:40 HAB5 8"-13"



Second berm sample collected at NE corner of Berm. Sample very similar to HAB3&4 Top soil saturated in hydrocarbons/piccip. Very heavy odor, dark brown. Hit refusal at 14" (caliche). Bottom of hole's soil is black.

HAB6_13"-14" @ 1150

1220 - Justin flies drone. "Mapping Flight"

1300: Attempted to Auger at spill West of monument but hit refusal (Caliche) at 5" at three different spots. Called Emily and decided to forego anymore boreholes within fenced area. Caliche is likely from construction of pad.

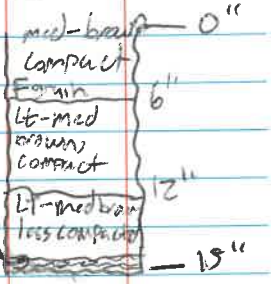
We will now assess the background samples south of the fenced area.

1/27/23

1345 HAB7 - 6"-12" - Lt-med brown fine grain soil. No signs of contamination, Soil gets "dryer" (less moisture) with depth. Compact at top of hole, A bit looser at bottom of bore. Hit refusal (caliche) @ 15".

1355 HAB8 - 12"-15"

Could not collect a third sample due to refusal depth.



1530: Dropped off samples and extra kits w/ Erin from HEAL.

1700: Arrived in Carlsbad.

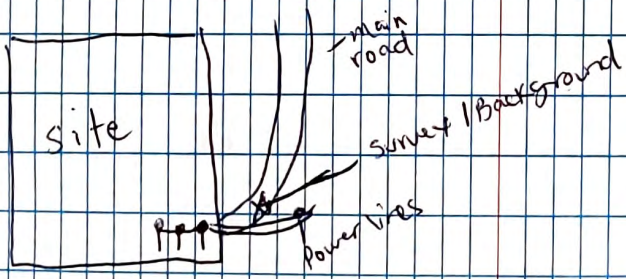
1600 - Pedro G. on site

Objective: Conduct NORM survey, site recon, background parameters

1614 - Called Brian with Unlimited Construction to arrange meeting time on Tuesday, March 14th. Scheduled to meet @ 0730 AM.

1629 - Marked monument with high-viz tape and stakes. Taking pictures of site

1649 - Conducting NORM survey using Ludlum model 19. Background - 6 micro R/hr between two power poles on main road to site location. Wind to the NE.



1705 - Completed NORM survey @ site. Surveyed all equipment/infrastructure. Observed 30 micro-R/hour on a small section of polyline. Rest of site ranges between 6-10 micro R per hour. Unlimited's trackhoe dropped off earlier. CAT-336E

1732 - Set up @ HAB-1 for background.

1753 - Conducted background soil parameters using YSI-1030. Mixed 60 grams of soil and 60mL of distilled water. YSI-1030 calibrated (7, 4, 10) and 1413 µS/cm

03/17/23 PG

(continued) HAB-1 readings:

pH: 6.25

SC: 33.4 $\frac{uS}{cm}$

Temp (°C) = 17.0

Demobil Decon.

1830 Pedro 6 off site.

P6

Real Estate 1/23

PG

0732- Pedro G on site. UC on site.
Weather: 32°F, clear skies. Cold
Objectives: Cut a temporary gate into the fence for site access, Excavate test pits and collect soil samples, move infrastructure

0747- Spoke to Adrian with UC. Brian should be here shortly to site.

0759- Brian with SE UC on site.

0820- Conducted TGSM and site acknowledgement. Communicated plans with Alex, Adrian, and Brian with UC.
Alex and Adrian creating an opening at the fence.

0853- Completed calibration. 100 ppm Isobutylene for PID and 3-point Cal (7, 4, 10) for YSI-1030 Pro. Calibration successful.

0916- Collecting background readings near HAB-4 & Encountered caliche @ 9.5'bgs

Screened soil at 9.0-9.5'
pH - 6.43
SC - 93 µs/cm
SC seems high, will recalibrate if necessary

0959- Adrian and Alex with UC opened up fence. Currently removing scrap/infrastructure near designated trenching locations. Creating pile on the SE (interior) of site.
- PG Portal Power Brown sign on site.

1033 Most of infrastructure relocated to designated stockpile. Shared Alex trenching locations. Requested UC to remove fence at T1 (infrastructure North of utility line, approx 10ft)

1049 Begin trenching @ T1-A Starting @ North side of fence

1144 Completed T1-A. Length 8.5ft, W: 2ft Depth: 5.5 ft bgs.
parameters @ 4'-5.5ft
PID: 0.4
SC(ms/cm): 1150
pH: 9.40
Temp(°C): 17.0
☆ Sampled for chlorides (4-oz jar)

1200 UC on lunch break. Called PM to discuss T1-A results.

1232 UC to begin backfilling T1-A. Compacting soil @ T1-A

1239 Begin trenching T1-B (directly ~~north~~ South of T1-A)

1322 Completed T1-B, max depth 5ft bgs

1348 Begin excavation @ T1-C Sampled

1401 Completed excavation at T1-C, max depth 4 ft bgs.

1422 Begin excavation @ T1-D

1520 Visible PHC contamination. Sampled T1-D (10'-11')

1637 Reached depth of 16' bgs No visible contamination / no odor. Sampled

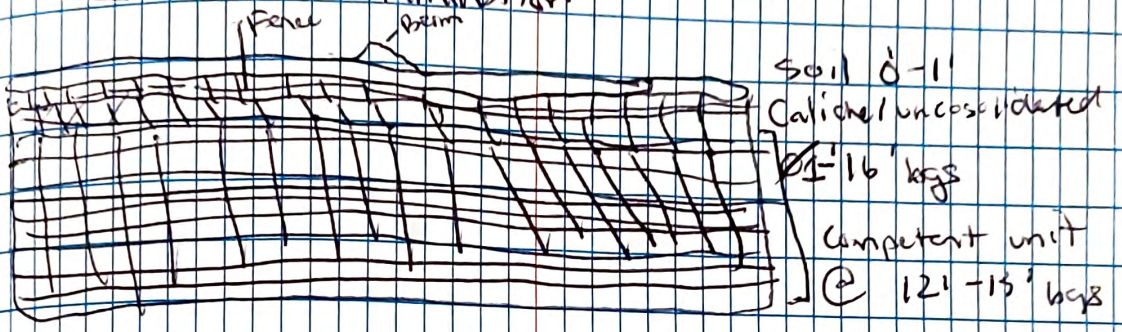
16 Pond Estate 8/17/23

15'-16'. Sample ID T1-D (15'-16')

T1 A Fence
B
C Berm
D visible contamination

N

Sketch



1708- VC off site. PG to scope out HHB locations and demob site

1748- Pedro G off site.

PG

0808 Pedro G and VC on site.

Weather: foggy, 49°F
Objective: Begin trenching @ T4 and T3
backfill T1, field screen T7-T11,

0830 Conducted TGSM Took pictures of T1 with dimensions. Set up @ T11 to perform soil screening
0840 YSI-1030 and PID calibration successful
0853 T11 soil screening
6"-7"
pH = 5.89
SC = 864 us/cm
Temp: 11.7°C
PID: 0.1 ppm
1.3' - 1.4
pH: 7.06
SC: 1086
Temp: 12.0
PID: 0.0
hit refusal @ 1.4'

0920 Set up @ T4
Strong Plte oder at the surface
Visible Plte staining present at the surface.
T4 depth - 14.5' bgs. Visible oil staining throughout soil profile. Staining stops around 6' - 8' ft bgs. However strong Plte odor.

Soil Estate

PG

1045 - Sampled T4-A (13'-14.5'). Soil screening readings: PID: 3 SC: 800

1123 - Acquiring T4-A dimensions. Took pictures of trench before backfill.

L: 23.5ft
W: 2ft
D: 14.5ft

1138 - Set up hand auger @ T9 soil screening 6"-8" Located in ~~middle~~ center of bermed area

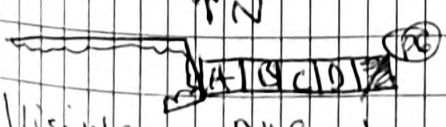
pH: 8.71
SC: 775 us/cm
Temp: 23.9°C
PID: 0.1

13"-14.5"
pH: 8.83
SC: 1140 us/cm
Temp: 21.9°C
PID: 0.5 ppm

Refusal @ 14.5"

1200 - VC on break

1235 - Set up @ ~~T2~~ T3



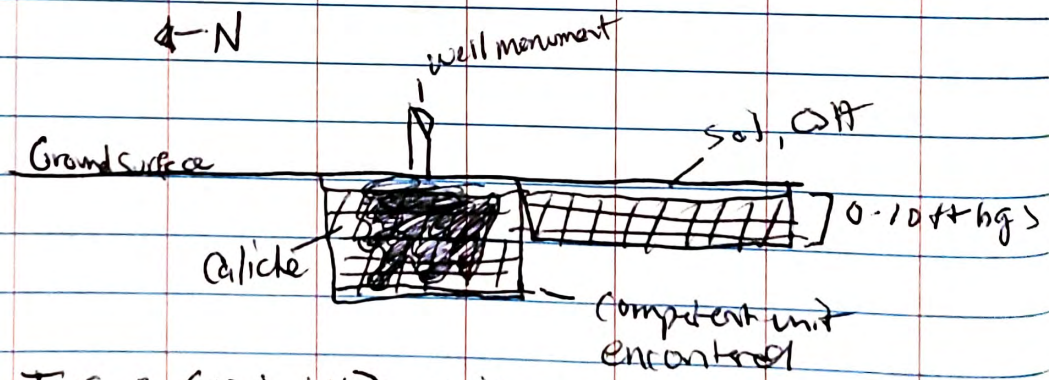
Visible PHC odor and staining/soil discoloring throughout trench/soil profile. Encountered strong chemical smell @ T3-B (21'-41'). Excavator will come back to location to sample adjacent to T3-B (21'-41')

1405 Sampled T3-D (7.5'-8.5'),
No visible staining or PAC odor

1432 Created trench adjacent to T3-B (2'-4
Sampled T3-B2 (3.5'-4.5').
strong chemical smell observed at this interval.
T3 Trench dimensions: L: 44ft W: 2ft
MaxD: 8.5ft

1515 Set up @ T5
Trench set up approx. 20ft South of well monument.
No visible contamination, instrument PID / YSI reveling 0.0 ppm 450 µS/cm @ T5-A (8'-10'). Sampled
Moving trench North, approx. 4ft south of well monument.

1605 Visible Staining and odor at T3-B.



1645 T5-B (13'-14') Soil screening

PID: 2007 ppm. Sampled this interval
Green/yellowish discoloration between 13' - 19' bgs.

1700 Spoke to PM. Arm on excavator appears to have reached its arm

Red Estate

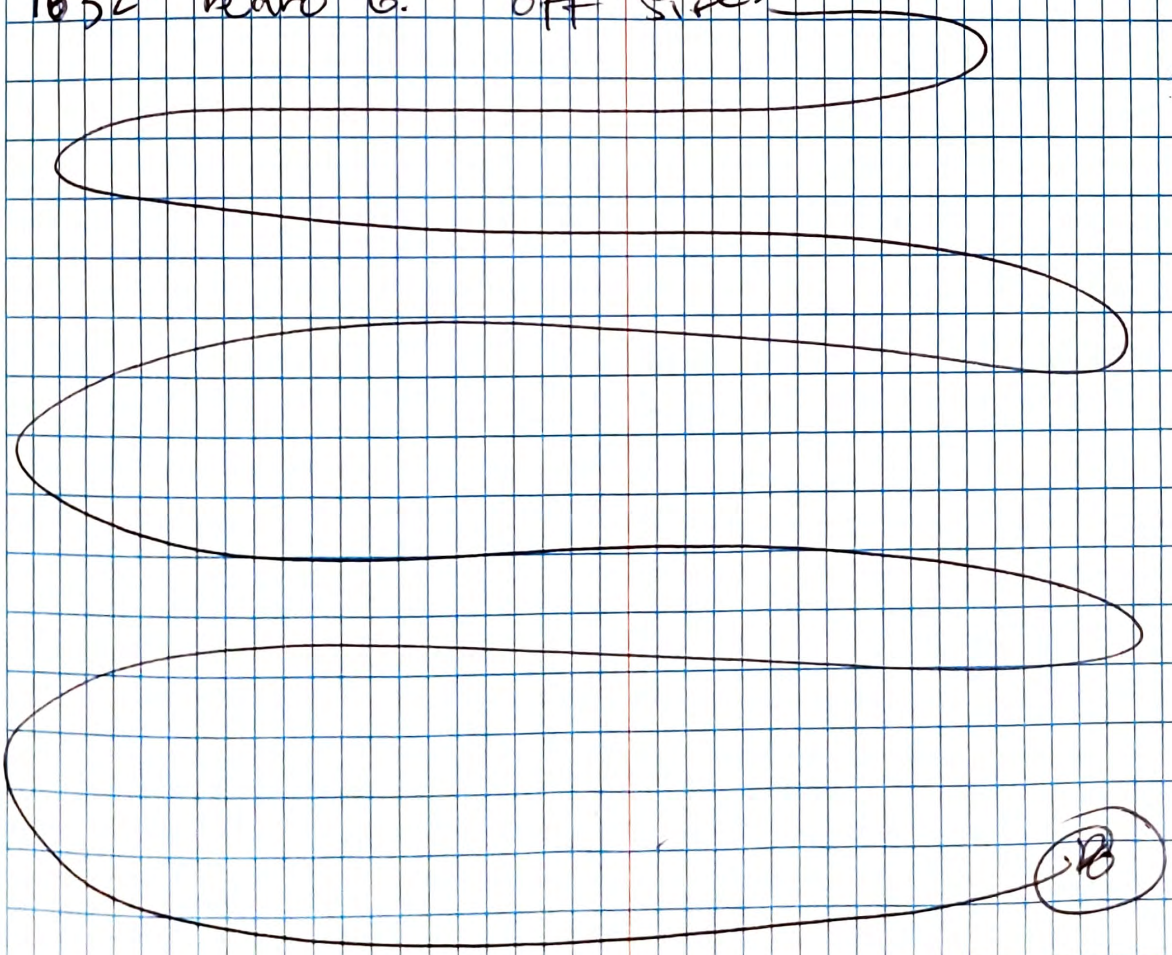
8/15/23

length and to be able to safely excavate. Contamination was encountered all the way down to 19.5 ft bgs however a competent unit was encounted.

1713 - UC off site. PG demob from trench and begin HAB @ T7

1822 - Several HAB were attempted @ T7, however caliche cobbles were encountered between 5 inches - 8 inches. No soil screening was taken due to shallow depths

1832 - Pedro G. off site.



0905 Pedro G and VC on site.

Objective: Trench T6, and conduct additional soil screening throughout out site
Weather: 64°F, windy, semi-cloudy.

0920 Conducted TGSM and objectives for the day.

0934 Took pictures of TS ~~before~~ backfill and compaction.

0950 YSI-1030 pH probe malfunction. ~~Attempted~~ to clean, disconnect/connect sensor, no success. pH readings will not be used in today's ~~screening~~
PID calibration successful
Marked out location of pothole
New ID: ~~PH~~ PH-10R. Located on map (screenshot of location. PH= pot hole

0956 Set up @ ~~PH-10R~~ PH-10 N-S trend ~~trench~~
Depth: 3ft, screened between 2.0 - 2.5ft
PID: No indication of PHC contamination
Temp: 20.1°C
SC: 231 ~~uS/cm~~
* Mostly clay, few caliche gravel, Dark brown moist

1015 Set up @ ~~PH-09R~~ PH-09 N-S ~~trench~~
Depth: 2.5' - 3.0'
PID: No indication of PHC contamination
Temp: 18.9°C
SC: 448

Reed Estate

1035 - Set up @ PH-11 E-W trend
PID: No indication of PHC contamination
temp @ PH: 18.9°C
SC: 776 uS/cm
Interval: 1.5' - 2.0' ft bgs

Interval: 4.5' - 5.0' ft bgs
PID: No PHC contamination *Mostly broken up caliche, silty, clay
SC: 1761 uS/cm
1048 - Sampled PH-11 (4.5' - 5.0') for chlorides, TPH

1107 - Set up @ PH-7 E-W trend
0' - 1' - mostly clay, few caliche gravel/cobbles moist dark brown
1' - 2' - mostly broken up caliche, few silt, gray color, no staining / PHC oder.
2' - 3' - Same as above
4' - 5' - Same as above.
temp 19.6°C
SC: 1486 uS/cm
1121 - Sampled - PH-7 (4.0' - 5.0') for chlorides TPH

1150 - Set up @ T-6 relocated on west side of fence, trenching E-W.

1205 - hit refusal @ 6ft bgs. Sampled @ interval 5' - 6' - T6-A (5' - 6')
No staining / PHC oder.
PID: 1.5 ppm
Temp: 2.9°C
SC: 2113 uS/cm
Moving trench east ~~feet~~, on other side of fence. Trench ID: T6-B

PG

1254 T6-B reached depth of 5' bgs. No visible contamination was observed. Moving trench directly east of T6-B.

1312 @ T6-C, visible staining and strong PHC odor was observed throughout soil profile. No sample was taken.

1345 Set up @ PH-8 Location marked on map.

Interval: 0'-2', OH, mostly clay, ~~foot~~ vegetation, few caliche gravel (coarse)

2'-3' - GW - caliche gravel. No odor or staining.

1400 3'-5' - Same as above, few silts/sand

Soil Screening:

Temp: 22.0°C

SC: 580 uS/cm

PID: 0.2

Sampled PH-8 (4'-5')

1418 Set up @ PH-2

0'-1'- OH, few caliche gravel, no staining/odor, moist

1'-2'- GW- coarse gravel, few caliche cobbles, gray

2'-4' - same as above, trace silt, gray

1430 4'-5.5' - SM - mostly fine sand, few fine to coarse gravel, tan, dry, no odor or staining.

Reed Estate

Continued- Soil screening results

PID: 0.5

SC: 199 $\frac{uS}{cm}$

Temp: 22.9°C

Sampled PH-2 (4'-5.5')

1500 - demobing. Big dust storm coming towards site.

1507 - UC off site

1530 - Pedro G. off site

P6

INTERA Soil Screening Form

Project Title	Reed Estate #001 API 30-025-07258	
Date	Instrument(s)	Calibration Date
3/14/23	PID / YSI Pro 1030	
Trench ID		
T1-A (S6)		

Time	Interval (Example: T2-A 0'-2')	PID (ppm)	20 ml of DI water with 20 grams of soil / ratio varied Temp	SC (mS/cm)	EC (g/L)	pH
1049	T1-A-0'-1'	1.1	13.3	1950		7.20
1110	T1-A-1'-2'	0.4	cannot conduct / caliche			—
1126	T1-A-2'-4'	1.0	16.7	1572		8.76
1144	T1-A-4'-5.5'	0.4	17.0	1150		9.40
1239	T1-B (0'-1')	0.1	19.0	2300		8.25
1250	T1-B (1'-3')	1.3	19.5	1192		8.66
1310	T1-B (3'-4')	0.1	20.1	2899		8.23
1322	T1-B (4'-5')	0.4	19.5	2030		8.46
1348	T1-C (0'-2')	0.1	22.8	676		8.28
1401	T1-C (2'-4')	0.3	21.9	468		8.17
1422	T1-D (0'-2')	malfunctioning PID	23.4	1050		7.90
1500	T1-D (8'-9')	325	—	—		—
1520	T1-D (10'-11')	355	—	—		—
1540	T1-D (12'-13')	724	—	—		—
1623	T1-D (14'-15')	242	—	—		—
1637	T1-D (15'-16')	4.2	—	—		—
		—	25.3	290		7.93
					NA	

8 Sft length

7.0 ft L.

6 Oft L.

Sampled

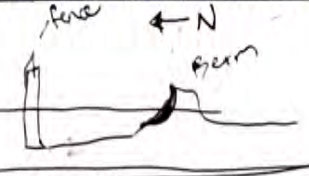
Sampled

Soil Logging

Interval	Soil Classification	Color	Staining/Odor	Notes
T1-A-0'-1'	OH	Dark Brown	NO	Medium plasticity, trace coarse sand
T1-A-1'-2'	Caliche / Cobbles	Gray/Brown	NO	clean caliche, no staining, no odor
				trace clay
T1-A-2'-4'	SM	Tan	NO	trace gravel / caliche, very angular
T1-A-4'-5.5'	Same as above / SM	tan	NO	trace gravel / caliche, very angular
				iron staining, moist
T1-B(0'-1')	OH	Dark Brown	NO	medium plasticity, trace coarse
~~T1-B(1'-3')~~	~~CL~~	~~Dark Brown~~	~~NO~~	sand, trace gravel, roots
T1-B(1'-3')	CL	Dark Brown	NO	medium plasticity, trace
				caliche gravel, no staining
T1-B(3'-4')	SM	tan	NO	trace gravel / caliche, very angular
T1-B(4'-5')	SM - same as above	tan	NO	trace coarse sand / caliche
T1-C(0'-2')	OH	Dark brown	NO	moist, organic material/plant, trace coarse sd
T1-C(2'-4')	SM	tan	NO	dry, Caliche gravel, very angular, some gravel angular
T1-D(0'-2')	OH	tan / Dark brown	Yes / PHC odor	very moist, sticky, dark staining
T1-D(2'-4')	SM	tan / Dark brown	Yes / PHC odor	Caliche stained, strong PHC odor, gravel
T1-D(4'-6')	SM - same as above	- encountered	thick caliche	unit. Teeth scraping on ~~caliche~~ caliche
T1-D(6'-9')	same as above. Intermittent	unit	of caliche / unconsolidated soil	
T1-D(9'-13')	Weathered caliche - competent unit		encountered	@ 13 ft bgs

1600

Trench profile: T1-B



T1-D(14'-15') Weathered Caliche | tan/grey | no visible stainings | no odor

T1-D(15-16') same as above - sampled

INTERA

Soil Screening Form

Project Title	Reed Estate #001 API 30-025-07258	
Date	Instrument(s)	Calibration Date
03/15/23	PID / YSI Pro 1030	03/15/23
Trench ID		
T3		

20 ml of DI water with 20 grams of soil ratio varied

Time	Interval (Example: T2-A 0'-2')	PID (ppm)	Temp	SC (mS/cm)	EC (g/L)	pH
1240	T3-A(0'-2')					
1310	T3-B(2'-4')	1.30	29.9	156		9.04
1405	T3-D(7.5'-9.5')	0.5	28.6	120		8.36

Soil Logging

Interval	Soil Classification	Color	Staining/Odor	Notes
T3-A(0'-2')	CH - trace fine coarse sand/roots	Dark brown	No / No	Plant debrice / moist
T3-A(1'-2')	Semi consolidated caliche	Gray/white	No / No	cobble sized / broken up by exc.
T3-A(2'-4')	SM - few caliche cobbles	Gray	No / PHC odor	Noted strong PHC odor.
Moving trench east. T3-A 14.5 ft long. Depth: 4.5 ft				
T3-B(0'-1')	CH - few coarse sand/roots	Dark brown	No / No	Plant debrice / moist
T3-B(1'-2')	Semi consolidated caliche	Gray/tan	No / No	cobble sized / Broken up by exc
T3-B(2'-4')	GW - silts, Sand	Grey	No / Strong chemical smell	/ broken up caliche
Moving trench east.				
T3-C(0'-2')	same soil profile as T3-A and T3-B			
T3-C(2'-4')	GW fine to med gravel	Gray	Yes / Yes PHC	Pieces of caliche stained, PHC odor
Moving trench east. New designation				
T3-D(0'-2')	Same soil profile as T3-A, T3-B, and T3-C.			
T3-D(2'-5')	GW - fine to med gravel	tan	No / No	Fine silts, trace large caliche cobbles
T3-D(5'-6')	Caliche unit - broken up caliche nodules		No / No	large cobbles broken up by exc.
T3-D(6'-7.5')	Caliche unit continues	at this depth, large caliche cobbles, no odor or staining		
T3-D(7.5'-8.5')	SM - mostly fine sand, few coarse sand / white		No / No	caliche cobbles, broken up by exc
Created trench directly South of T3-B.			to sample	for soil that had
strong chemical odor. Trench ID:			T3-B2 (3.5'-4.5')	Sampled

Sampled

INTERA

Soil Screening Form

Project Title	Reed Estate #001 API 30-025-07258	
Date	Instrument(s)	Calibration Date
03/15/23	PID / YSI Pro 1030	03/15/23
Trench ID		
T4		

20 ml of DI water with 20 grams of soil ratio varied

Time	Interval (Example: T2-A 0'-2')	PID (ppm)	Temp	SC (mS/cm)	EC (g/L)	pH
~~0920~~	~~T4-A (0'-2')~~	—	—	—	—	—
0945	T4-A (5'-6')	378.0	13.2	Too much salt in solution	—	8.67
1025	T4-A (10'-12')	~~395~~	20.5	395	—	8.54
1145	T4-A (13-14.5')	3	22.2	80.0	—	

Sampled

Soil Logging

Interval	Soil Classification	Color	Staining/Odor	Notes
T4-A (0-1')	CL - trace angular gravel	Dark brown / black	black / PHC	moist ~~coarse~~ trace coarse caliche gravel angular
T4-A (1'-2')	Semi-consolidated caliche	Gray / Dark Gray	black / PHC	trace amounts of silt / black
T4-A (2'-4.5')	Competent unit. (caliche) UC	broke through unit. Broken up caliche green/gray color / PHC odor		
T4-A (5'-6')	GM - Silts / coarse gravel	Gray / Green	black / PHC	moist.
T4-A (6'-8')	SM - Silts / trace gravel/fine sand	tan	PHC odor	No visible staining
T4-A (8'-10')	SM - Silts / few caliche cobbles	tan / Pinkish	PHC odor / No staining	staining - cobbles angular
T4-A (10'-12')	same as above	tan / Pinkish	PHC odor	No staining
T4-A (12'-13')	same as above	tan / Pinkish	PHC odor	No staining
T4-A (13'-14.5')	SM - mostly fine/med sand	tan / Pinkish	PHC odor (slight)	trace large gravel, angular

Sampled

INTERA

Soil Screening Form

Project Title	Reed Estate #001 API 30-025-07258	
Date	Instrument(s)	Calibration Date
03/15/23	PID / YSI Pro 1030	03/15/23
Trench ID		
TS		

20 ml of DI water with 20 grams of soil ratio varied

Time	Interval (Example: T2-A 0'-2')	PID (ppm)	Temp	SC (mS/cm)	EC (g/L)	pH
1532	TS-A (4'-6')	0.1	26.8	910		8.25
1553	TS-A (8'-10')	0.0	26.6	450		8.68
1610	TS-B (3'-4')	1034	—	—		—
1645	TS-B (13'-14')	2007	—	—		—
1720	TS-B (17'-19')	768	24.9	156		9.00

Sampled — 1553
Sampled — 1645

Soil Logging

Interval	Soil Classification	Color	Staining/Odor	Notes
TS-A(0'-1')	Off medium plasticity	Dark brown	No / No	moist / few coarse sand, angular
TS-A(1'-2')	GW-mostly broken up caliche	/ Gray	No / No	few silt, sand.
TS-A(2'-4')	GW - mostly broken up caliche	/ Grey	No / No	few silt, sand.
TS-A(4'-6')	SM - few coarse gravel	tan / Grey	No No	
TS-A(6'-8')	same as above.	tan / Grey	No / No	No pHC odor / staining
(S) 1553 TS-A(8'-10')	SM - few silt	tan	iron staining	No pHC odor / no pHC staining
	Sampled →			
1605 Moving	trench North. Trench ID:		TS-B	
(G) 1610 TS-B(3'-4')	CL - few trace coarse sand/gravel/	Dark brown	Yes / Yes	Dark staining, strong PHC odor very moist
TS-B(9'-8')	SM - few coarse gravel/cobbles	tan	Yes / Yes	Degraded PHC odor / iron staining / moist
TS-B(8'-11')	Same as above	tan	No / Yes	Strong PHC odor
TS-B(11'-13')	Same as above			
TS-B(13'-14')	SM - few trace gravel	tan/green	Yes / Yes	Strong PHC odor
TS-B(14'-15.5')	SM - few trace gravel	tan/green	Yes / Yes	Strong PHC odor
TS-B(15.5'-17')	same as above	tan / green	Yes / Yes	Strong PHC odor
TS-B(17'-19')	same as above	tan / green	Yes / Yes	Strong PHC odor
Refusal @ 19.5' bgs				

INTERA

Soil Screening Form

Project Title	Reed Estate #001 API 30-025-07258	
Date	Instrument(s)	Calibration Date
03/16/23	PID / YSI Pro 1030	03/16/23
Trench ID		
T6		

20 ml of DI water with 20 grams of soil ratio varied

Time	Interval (Example: T2-A 0'-2')	PID (ppm)	Temp	SC (mS/cm)	EC (g/L)	pH
1150						
1205	T6-A (5'-6')	1.5	20.9	2113		
1254	T6-C (0'-2')	55	—	—		
1312	T6-C (5'-6.5')	11	24.9	145		

Soil Logging

Interval	Soil Classification	Color	Staining/Odor	Notes
T6-A (0'-2')	OH - few caliche cobbles	Dark brown	No / No	medium plasticity, moist, plant debris
T6-A (2'-4')	GW - few silt.	Gray / tan	No / No	mostly coarse gravel, few cobble (caliche)
T6-A (4-5'	Same as above			
1205 Sampled T6-A (5'-6')	same as above	Grey / tan	No / NO	mostly coarse gravel, few cobble (caliche)
Refusal	@ 6.5' ft. Competent	unit encountered. Caliche	concretions?	
1243 Starting	trench T6-B - directly east	of T6-A		
T6-B (0'-2')	OH - few caliche cobbles	Dark brown	No / No	Plant debris/vegetation,
1250 T6-B (2'-3')	GW - few silt	Gray / tan	No / No	mostly coarse gravel, few caliche cobble
T6-B (3'-5')	SM - mostly fine sand, few silt	tan	No / No	trace caliche gravel
Moving	trench directly East of	T6-B.		
1254 T6-C (0'-2')	OH - few caliche cobbles	Dark brown	Yes / Yes	Dark staining / Strong PHC odor
T6-C (2'-5')	GW - few silt broken up caliche	/ tan	Yes/NoYes	PHC odor, no staining
1312 T6-C (5'-6.5')	SM - Mostly fine sand, few caliche gravel	/ tan	Yes / Yes	Iron staining / slight chemical odor

Appendix C

Laboratory Reports

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

February 14, 2023

Emily Woolsey

Intera, Inc.
2440 Louisana Blvd NE Suite 700
Albuquerque, NM 87110
TEL:
FAX:

RE: OCD Reed Estate 001 OrderNo.: 2301A84

Dear Emily Woolsey:

Hall Environmental Analysis Laboratory received 8 sample(s) on 1/28/2023 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2301A84**
Date Reported: **2/14/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** HAB1-14"-20"
Project: OCD Reed Estate 001 **Collection Date:** 1/27/2023 9:15:00 AM
Lab ID: 2301A84-001 **Matrix:** MEOH (SOIL) **Received Date:** 1/28/2023 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**NAI**
Fluoride	2.3	1.5		mg/Kg	5	2/2/2023 7:39:15 PM	72970
Chloride	ND	7.5		mg/Kg	5	2/2/2023 7:39:15 PM	72970
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	2/2/2023 7:39:15 PM	72970
Bromide	ND	1.5		mg/Kg	5	2/2/2023 7:39:15 PM	72970
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	2/2/2023 7:39:15 PM	72970
Sulfate	26	7.5		mg/Kg	5	2/2/2023 7:39:15 PM	72970
EPA METHOD 6010B: SOIL METALS						Analyst:	**JRR**
Calcium	2800	98		mg/Kg	2	2/8/2023 2:55:36 PM	73026
Magnesium	3600	98		mg/Kg	2	2/8/2023 2:55:36 PM	73026
Potassium	4800	98		mg/Kg	2	2/8/2023 2:55:36 PM	73026
Sodium	100	98		mg/Kg	2	2/8/2023 2:55:36 PM	73026
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**DGH**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	1/31/2023 7:58:16 PM	72898
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/31/2023 7:58:16 PM	72898
Surr: DNOP	111	69-147		%Rec	1	1/31/2023 7:58:16 PM	72898
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**JJP**
Gasoline Range Organics (GRO)	ND	7.5		mg/Kg	1	2/4/2023 3:10:37 AM	GS94389
Surr: BFB	101	37.7-212		%Rec	1	2/4/2023 3:10:37 AM	GS94389
EPA METHOD 8021B: VOLATILES						Analyst:	**JJP**
Benzene	ND	0.038		mg/Kg	1	2/4/2023 3:10:37 AM	R94389
Toluene	ND	0.075		mg/Kg	1	2/4/2023 3:10:37 AM	R94389
Ethylbenzene	ND	0.075		mg/Kg	1	2/4/2023 3:10:37 AM	R94389
Xylenes, Total	ND	0.15		mg/Kg	1	2/4/2023 3:10:37 AM	R94389
Surr: 4-Bromofluorobenzene	91.8	70-130		%Rec	1	2/4/2023 3:10:37 AM	R94389
SM4500H+B/EPA 9040C						Analyst:	**SNS**
pH	7.25			pH Units	1	2/6/2023 4:01:00 PM	R94434

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2301A84**
Date Reported: **2/14/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** HAB2-26"-32"
Project: OCD Reed Estate 001 **Collection Date:** 1/27/2023 9:15:00 AM
Lab ID: 2301A84-002 **Matrix:** MEOH (SOIL) **Received Date:** 1/28/2023 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**NAI**
Fluoride	2.2	1.5		mg/Kg	5	2/2/2023 8:28:55 PM	72970
Chloride	ND	7.5		mg/Kg	5	2/2/2023 8:28:55 PM	72970
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	2/2/2023 8:28:55 PM	72970
Bromide	ND	1.5		mg/Kg	5	2/2/2023 8:28:55 PM	72970
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	2/2/2023 8:28:55 PM	72970
Sulfate	29	7.5		mg/Kg	5	2/2/2023 8:28:55 PM	72970
EPA METHOD 6010B: SOIL METALS						Analyst:	**JRR**
Calcium	3800	99		mg/Kg	2	2/8/2023 2:57:28 PM	73026
Magnesium	3800	99		mg/Kg	2	2/8/2023 2:57:28 PM	73026
Potassium	5000	99		mg/Kg	2	2/8/2023 2:57:28 PM	73026
Sodium	100	99		mg/Kg	2	2/8/2023 2:57:28 PM	73026
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**DGH**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	1/31/2023 8:30:00 PM	72898
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/31/2023 8:30:00 PM	72898
Surr: DNOP	118	69-147		%Rec	1	1/31/2023 8:30:00 PM	72898
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**JJP**
Gasoline Range Organics (GRO)	ND	7.5		mg/Kg	1	2/4/2023 4:20:33 AM	GS94389
Surr: BFB	102	37.7-212		%Rec	1	2/4/2023 4:20:33 AM	GS94389
EPA METHOD 8021B: VOLATILES						Analyst:	**JJP**
Benzene	ND	0.037		mg/Kg	1	2/4/2023 4:20:33 AM	R94389
Toluene	ND	0.075		mg/Kg	1	2/4/2023 4:20:33 AM	R94389
Ethylbenzene	ND	0.075		mg/Kg	1	2/4/2023 4:20:33 AM	R94389
Xylenes, Total	ND	0.15		mg/Kg	1	2/4/2023 4:20:33 AM	R94389
Surr: 4-Bromofluorobenzene	93.2	70-130		%Rec	1	2/4/2023 4:20:33 AM	R94389
SM4500H+B/EPA 9040C						Analyst:	**SNS**
pH	7.81			pH Units	1	2/6/2023 4:01:00 PM	R94434

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2301A84**
Date Reported: **2/14/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** HAB3-9"-15"
Project: OCD Reed Estate 001 **Collection Date:** 1/27/2023 10:20:00 AM
Lab ID: 2301A84-003 **Matrix:** MEOH (SOIL) **Received Date:** 1/28/2023 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**NAI**
Fluoride	2.0	1.5		mg/Kg	5	2/2/2023 9:18:33 PM	72970
Chloride	ND	7.5		mg/Kg	5	2/2/2023 9:18:33 PM	72970
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	2/2/2023 9:18:33 PM	72970
Bromide	ND	1.5		mg/Kg	5	2/2/2023 9:18:33 PM	72970
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	2/2/2023 9:18:33 PM	72970
Sulfate	49	7.5		mg/Kg	5	2/2/2023 9:18:33 PM	72970
EPA METHOD 6010B: SOIL METALS						Analyst:	**JRR**
Calcium	35000	500		mg/Kg	10	2/8/2023 3:42:01 PM	73026
Magnesium	6600	100		mg/Kg	2	2/8/2023 3:05:18 PM	73026
Potassium	2300	100		mg/Kg	2	2/8/2023 3:05:18 PM	73026
Sodium	310	100		mg/Kg	2	2/8/2023 3:05:18 PM	73026
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**DGH**
Diesel Range Organics (DRO)	8900	480		mg/Kg	50	1/31/2023 8:40:34 PM	72898
Motor Oil Range Organics (MRO)	4000	2400		mg/Kg	50	1/31/2023 8:40:34 PM	72898
Surr: DNOP	0	69-147	S	%Rec	50	1/31/2023 8:40:34 PM	72898
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**JJP**
Gasoline Range Organics (GRO)	500	160		mg/Kg	20	2/4/2023 5:30:18 AM	GS94389
Surr: BFB	201	37.7-212		%Rec	20	2/4/2023 5:30:18 AM	GS94389
EPA METHOD 8021B: VOLATILES						Analyst:	**JJP**
Benzene	ND	0.81		mg/Kg	20	2/4/2023 5:30:18 AM	R94389
Toluene	ND	1.6		mg/Kg	20	2/4/2023 5:30:18 AM	R94389
Ethylbenzene	2.7	1.6		mg/Kg	20	2/4/2023 5:30:18 AM	R94389
Xylenes, Total	9.0	3.2		mg/Kg	20	2/4/2023 5:30:18 AM	R94389
Surr: 4-Bromofluorobenzene	94.4	70-130		%Rec	20	2/4/2023 5:30:18 AM	R94389
SM4500H+B/EPA 9040C						Analyst:	**SNS**
pH	8.63			pH Units	1	2/6/2023 4:01:00 PM	R94434

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2301A84**
Date Reported: **2/14/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** HAB4-15"-18"
Project: OCD Reed Estate 001 **Collection Date:** 1/27/2023 10:40:00 AM
Lab ID: 2301A84-004 **Matrix:** MEOH (SOIL) **Received Date:** 1/28/2023 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**NAI**
Fluoride	1.6	1.5		mg/Kg	5	2/2/2023 10:08:12 PM	72970
Chloride	ND	7.5		mg/Kg	5	2/2/2023 10:08:12 PM	72970
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	2/2/2023 10:08:12 PM	72970
Bromide	ND	1.5		mg/Kg	5	2/2/2023 10:08:12 PM	72970
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	2/2/2023 10:08:12 PM	72970
Sulfate	310	7.5		mg/Kg	5	2/2/2023 10:08:12 PM	72970
EPA METHOD 6010B: SOIL METALS						Analyst:	**JRR**
Calcium	43000	490		mg/Kg	10	2/8/2023 3:44:02 PM	73026
Magnesium	9100	98		mg/Kg	2	2/8/2023 3:07:10 PM	73026
Potassium	2200	98		mg/Kg	2	2/8/2023 3:07:10 PM	73026
Sodium	330	98		mg/Kg	2	2/8/2023 3:07:10 PM	73026
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**DGH**
Diesel Range Organics (DRO)	8700	490		mg/Kg	50	1/31/2023 9:01:40 PM	72898
Motor Oil Range Organics (MRO)	7100	2400		mg/Kg	50	1/31/2023 9:01:40 PM	72898
Surr: DNOP	0	69-147	S	%Rec	50	1/31/2023 9:01:40 PM	72898
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**JJP**
Gasoline Range Organics (GRO)	510	160		mg/Kg	20	2/4/2023 5:53:36 AM	GS94389
Surr: BFB	201	37.7-212		%Rec	20	2/4/2023 5:53:36 AM	GS94389
EPA METHOD 8021B: VOLATILES						Analyst:	**JJP**
Benzene	0.81	0.80		mg/Kg	20	2/4/2023 5:53:36 AM	R94389
Toluene	ND	1.6		mg/Kg	20	2/4/2023 5:53:36 AM	R94389
Ethylbenzene	3.3	1.6		mg/Kg	20	2/4/2023 5:53:36 AM	R94389
Xylenes, Total	8.4	3.2		mg/Kg	20	2/4/2023 5:53:36 AM	R94389
Surr: 4-Bromofluorobenzene	93.3	70-130		%Rec	20	2/4/2023 5:53:36 AM	R94389
SM4500H+B/EPA 9040C						Analyst:	**SNS**
pH	7.79			pH Units	1	2/6/2023 4:01:00 PM	R94434

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2301A84**
Date Reported: **2/14/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** HAB5-8"-13"
Project: OCD Reed Estate 001 **Collection Date:** 1/27/2023 11:40:00 AM
Lab ID: 2301A84-005 **Matrix:** MEOH (SOIL) **Received Date:** 1/28/2023 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**NAI**
Fluoride	2.5	1.5		mg/Kg	5	2/2/2023 10:33:01 PM	72970
Chloride	ND	7.5		mg/Kg	5	2/2/2023 10:33:01 PM	72970
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	2/2/2023 10:33:01 PM	72970
Bromide	ND	1.5		mg/Kg	5	2/2/2023 10:33:01 PM	72970
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	2/2/2023 10:33:01 PM	72970
Sulfate	9.9	7.5		mg/Kg	5	2/2/2023 10:33:01 PM	72970
EPA METHOD 6010B: SOIL METALS						Analyst:	**JRR**
Calcium	2600	99		mg/Kg	2	2/8/2023 3:08:59 PM	73026
Magnesium	2500	99		mg/Kg	2	2/8/2023 3:08:59 PM	73026
Potassium	3200	99		mg/Kg	2	2/8/2023 3:08:59 PM	73026
Sodium	440	99		mg/Kg	2	2/8/2023 3:08:59 PM	73026
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**DGH**
Diesel Range Organics (DRO)	6400	460		mg/Kg	50	1/31/2023 9:43:46 PM	72898
Motor Oil Range Organics (MRO)	2800	2300		mg/Kg	50	1/31/2023 9:43:46 PM	72898
Surr: DNOP	0	69-147	S	%Rec	50	1/31/2023 9:43:46 PM	72898
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**CCM**
Gasoline Range Organics (GRO)	1600	57		mg/Kg	10	2/5/2023 12:10:00 AM	G94421
Surr: BFB	256	37.7-212	S	%Rec	10	2/5/2023 12:10:00 AM	G94421
EPA METHOD 8021B: VOLATILES						Analyst:	**CCM**
Benzene	ND	0.23		mg/Kg	10	2/5/2023 12:10:00 AM	B94421
Toluene	ND	0.23		mg/Kg	10	2/5/2023 12:10:00 AM	B94421
Ethylbenzene	11	0.57		mg/Kg	10	2/5/2023 12:10:00 AM	B94421
Xylenes, Total	52	1.1		mg/Kg	10	2/5/2023 12:10:00 AM	B94421
Surr: 4-Bromofluorobenzene	148	70-130	S	%Rec	10	2/5/2023 12:10:00 AM	B94421
SM4500H+B/EPA 9040C						Analyst:	**SNS**
pH	8.17			pH Units	1	2/6/2023 4:01:00 PM	R94434

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2301A84**
Date Reported: **2/14/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** HAB6-13"-14"
Project: OCD Reed Estate 001 **Collection Date:** 1/27/2023 11:50:00 AM
Lab ID: 2301A84-006 **Matrix:** MEOH (SOIL) **Received Date:** 1/28/2023 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**NAI**
Fluoride	2.4	1.5		mg/Kg	5	2/2/2023 10:57:51 PM	72970
Chloride	ND	7.5		mg/Kg	5	2/2/2023 10:57:51 PM	72970
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	2/2/2023 10:57:51 PM	72970
Bromide	ND	1.5		mg/Kg	5	2/2/2023 10:57:51 PM	72970
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	2/2/2023 10:57:51 PM	72970
Sulfate	12	7.5		mg/Kg	5	2/2/2023 10:57:51 PM	72970
EPA METHOD 6010B: SOIL METALS						Analyst:	**JRR**
Calcium	3500	99		mg/Kg	2	2/8/2023 3:10:51 PM	73026
Magnesium	2500	99		mg/Kg	2	2/8/2023 3:10:51 PM	73026
Potassium	3200	99		mg/Kg	2	2/8/2023 3:10:51 PM	73026
Sodium	470	99		mg/Kg	2	2/8/2023 3:10:51 PM	73026
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**DGH**
Diesel Range Organics (DRO)	7700	480		mg/Kg	50	1/31/2023 10:04:50 PM	72898
Motor Oil Range Organics (MRO)	3300	2400		mg/Kg	50	1/31/2023 10:04:50 PM	72898
Surr: DNOP	0	69-147	S	%Rec	50	1/31/2023 10:04:50 PM	72898
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**CCM**
Gasoline Range Organics (GRO)	1700	93		mg/Kg	10	2/5/2023 12:49:00 AM	G94421
Surr: BFB	211	37.7-212		%Rec	10	2/5/2023 12:49:00 AM	G94421
EPA METHOD 8021B: VOLATILES						Analyst:	**CCM**
Benzene	ND	0.37		mg/Kg	10	2/5/2023 12:49:00 AM	B94421
Toluene	ND	0.37		mg/Kg	10	2/5/2023 12:49:00 AM	B94421
Ethylbenzene	11	0.93		mg/Kg	10	2/5/2023 12:49:00 AM	B94421
Xylenes, Total	46	1.9		mg/Kg	10	2/5/2023 12:49:00 AM	B94421
Surr: 4-Bromofluorobenzene	194	70-130	S	%Rec	10	2/5/2023 12:49:00 AM	B94421
SM4500H+B/EPA 9040C						Analyst:	**SNS**
pH	7.89			pH Units	1	2/6/2023 4:01:00 PM	R94434

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2301A84**
Date Reported: **2/14/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** HAB7-6"-12"
Project: OCD Reed Estate 001 **Collection Date:** 1/27/2023 1:45:00 PM
Lab ID: 2301A84-007 **Matrix:** MEOH (SOIL) **Received Date:** 1/28/2023 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**NAI**
Fluoride	ND	1.5		mg/Kg	5	2/2/2023 11:22:40 PM	72970
Chloride	ND	7.5		mg/Kg	5	2/2/2023 11:22:40 PM	72970
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	2/2/2023 11:22:40 PM	72970
Bromide	ND	1.5		mg/Kg	5	2/2/2023 11:22:40 PM	72970
Nitrogen, Nitrate (As N)	3.3	1.5		mg/Kg	5	2/2/2023 11:22:40 PM	72970
Sulfate	16	7.5		mg/Kg	5	2/2/2023 11:22:40 PM	72970
EPA METHOD 6010B: SOIL METALS						Analyst:	**JRR**
Calcium	33000	490		mg/Kg	10	2/8/2023 3:46:03 PM	73026
Magnesium	1900	99		mg/Kg	2	2/8/2023 3:12:43 PM	73026
Potassium	1700	99		mg/Kg	2	2/8/2023 3:12:43 PM	73026
Sodium	ND	99		mg/Kg	2	2/8/2023 3:12:43 PM	73026
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**DGH**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/31/2023 10:25:53 PM	72898
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/31/2023 10:25:53 PM	72898
Surr: DNOP	119	69-147		%Rec	1	1/31/2023 10:25:53 PM	72898
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**JJP**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/9/2023 4:29:09 PM	GS94497
Surr: BFB	100	37.7-212		%Rec	1	2/9/2023 4:29:09 PM	GS94497
EPA METHOD 8021B: VOLATILES						Analyst:	**JJP**
Benzene	ND	0.053		mg/Kg	1	2/4/2023 7:26:32 AM	R94389
Toluene	ND	0.11		mg/Kg	1	2/4/2023 7:26:32 AM	R94389
Ethylbenzene	ND	0.11		mg/Kg	1	2/4/2023 7:26:32 AM	R94389
Xylenes, Total	ND	0.21		mg/Kg	1	2/4/2023 7:26:32 AM	R94389
Surr: 4-Bromofluorobenzene	87.1	70-130		%Rec	1	2/4/2023 7:26:32 AM	R94389
SM4500H+B/EPA 9040C						Analyst:	**SNS**
pH	8.05			pH Units	1	2/6/2023 4:01:00 PM	R94434

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2301A84**
Date Reported: **2/14/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** HAB8-12"15"
Project: OCD Reed Estate 001 **Collection Date:** 1/27/2023 1:55:00 PM
Lab ID: 2301A84-008 **Matrix:** MEOH (SOIL) **Received Date:** 1/28/2023 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**NAI**
Fluoride	ND	1.5		mg/Kg	5	2/2/2023 11:47:30 PM	72970
Chloride	ND	7.5		mg/Kg	5	2/2/2023 11:47:30 PM	72970
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	2/2/2023 11:47:30 PM	72970
Bromide	ND	1.5		mg/Kg	5	2/2/2023 11:47:30 PM	72970
Nitrogen, Nitrate (As N)	6.2	1.5		mg/Kg	5	2/2/2023 11:47:30 PM	72970
Sulfate	18	7.5		mg/Kg	5	2/2/2023 11:47:30 PM	72970
EPA METHOD 6010B: SOIL METALS						Analyst:	**JRR**
Calcium	32000	490		mg/Kg	10	2/10/2023 12:20:46 PM	73026
Magnesium	1600	98		mg/Kg	2	2/8/2023 3:19:56 PM	73026
Potassium	1500	98		mg/Kg	2	2/8/2023 3:19:56 PM	73026
Sodium	ND	98		mg/Kg	2	2/8/2023 3:19:56 PM	73026
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**DGH**
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	1/31/2023 10:36:24 PM	72898
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	1/31/2023 10:36:24 PM	72898
Surr: DNOP	118	69-147		%Rec	1	1/31/2023 10:36:24 PM	72898
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**JJP**
Gasoline Range Organics (GRO)	ND	8.9		mg/Kg	1	2/4/2023 7:49:41 AM	GS94389
Surr: BFB	113	37.7-212		%Rec	1	2/4/2023 7:49:41 AM	GS94389
EPA METHOD 8021B: VOLATILES						Analyst:	**JJP**
Benzene	ND	0.045		mg/Kg	1	2/4/2023 7:49:41 AM	R94389
Toluene	ND	0.089		mg/Kg	1	2/4/2023 7:49:41 AM	R94389
Ethylbenzene	ND	0.089		mg/Kg	1	2/4/2023 7:49:41 AM	R94389
Xylenes, Total	ND	0.18		mg/Kg	1	2/4/2023 7:49:41 AM	R94389
Surr: 4-Bromofluorobenzene	87.0	70-130		%Rec	1	2/4/2023 7:49:41 AM	R94389
SM4500H+B/EPA 9040C						Analyst:	**SNS**
pH	8.08			pH Units	1	2/6/2023 4:01:00 PM	R94434

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Pace Analytical®

ANALYTICAL REPORT

February 11, 2023

Hall Environmental Analysis Laboratory

Sample Delivery Group:	L1580746
Samples Received:	01/31/2023
Project Number:	
Description:	

Report To: Andy Freeman
4901 Hawkins NE
Albuquerque, NM 87109

Entire Report Reviewed By: John V Hawkins

John Hawkins
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

2301A84-001B HAB1-14"-20" L1580746-01 Solid

Collected by | Collected date/time 01/27/23 09:15 | Received date/time 01/31/23 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1997738	1	02/10/23 00:00	02/10/23 00:00	-	Sheridan, WY 82801

2301A84-002B HAB2-26"-32" L1580746-02 Solid

Collected by | Collected date/time 01/27/23 09:15 | Received date/time 01/31/23 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1997738	1	02/10/23 00:00	02/10/23 00:00	-	Sheridan, WY 82801

2301A84-003B HAB3-9"-15" L1580746-03 Solid

Collected by | Collected date/time 01/27/23 10:20 | Received date/time 01/31/23 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1997738	1	02/10/23 00:00	02/10/23 00:00	-	Sheridan, WY 82801

2301A84-004B HAB4-15"-18"" L1580746-04 Solid

Collected by | Collected date/time 01/27/23 10:40 | Received date/time 01/31/23 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1997738	1	02/10/23 00:00	02/10/23 00:00	-	Sheridan, WY 82801

2301A84-005B HAB5-8"-13"" L1580746-05 Solid

Collected by | Collected date/time 01/27/23 11:40 | Received date/time 01/31/23 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1997738	1	02/10/23 00:00	02/10/23 00:00	-	Sheridan, WY 82801

2301A84-006B HAB6-13"-14"" L1580746-06 Solid

Collected by | Collected date/time 01/27/23 11:50 | Received date/time 01/31/23 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1997738	1	02/10/23 00:00	02/10/23 00:00	-	Sheridan, WY 82801

2301A84-007B HAB7-6"-12"" L1580746-07 Solid

Collected by | Collected date/time 01/27/23 13:45 | Received date/time 01/31/23 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1997738	1	02/10/23 00:00	02/10/23 00:00	-	Sheridan, WY 82801

2301A84-008B HAB8-12"-15" L1580746-08 Solid

Collected by | Collected date/time 01/27/23 13:55 | Received date/time 01/31/23 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1997738	1	02/10/23 00:00	02/10/23 00:00	-	Sheridan, WY 82801

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

John Hawkins
Project Manager

Project Narrative

L1580746 -01, -02, -03, -04, -05, -06, -07, -08 contains subout data that is included after the chain of custody.

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

SDG	Sample Delivery Group.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

CHAIN OF CUSTODY RECORD

PAGE: 1 OF: 1

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975
FAX: 505-345-4107
Website: www.hallenvironmental.com

SUB CONTRATOR: Pace TN	COMPANY: PACE TN	PHONE: (800) 767-5859	FAX: (615) 758-5859
ADDRESS: 12065 Lebanon Rd		ACCOUNT #:	EMAIL:
CITY, STATE, ZIP: Mt. Juliet, TN 37122			

LR580746

ITEM	SAMPLE	CLIENT SAMPLE ID	BOTTLE TYPE	MATRIX	COLLECTION DATE	# CONTAINERS	ANALYTICAL COMMENTS	
1	2301A84-001B	HAB1-14"-20"	4OZGU	MeOH (Soil)	1/27/2023 9:15:00 AM	1	Cation Exchange Capacity- ** 5 Day TAT **	-01
2	2301A84-002B	HAB2-26"-32"	4OZGU	MeOH (Soil)	1/27/2023 9:15:00 AM	1	Cation Exchange Capacity- ** 5 Day TAT **	-02
3	2301A84-003B	HAB3-9"-15"	4OZGU	MeOH (Soil)	1/27/2023 10:20:00 AM	1	Cation Exchange Capacity- ** 5 Day TAT **	-03
4	2301A84-004B	HAB4-15"-18"	4OZGU	MeOH (Soil)	1/27/2023 10:40:00 AM	1	Cation Exchange Capacity- ** 5 Day TAT **	-04
5	2301A84-005B	HAB5-8"-13"	4OZGU	MeOH (Soil)	1/27/2023 11:40:00 AM	1	Cation Exchange Capacity- ** 5 Day TAT **	-05
6	2301A84-006B	HAB6-13"-14"	4OZGU	MeOH (Soil)	1/27/2023 11:50:00 AM	1	Cation Exchange Capacity- ** 5 Day TAT **	-06
7	2301A84-007B	HAB7-6"-12"	4OZGU	MeOH (Soil)	1/27/2023 1:45:00 PM	1	Cation Exchange Capacity- ** 5 Day TAT **	-07
8	2301A84-008B	HAB8-12"15"	4OZGU	MeOH (Soil)	1/27/2023 1:55:00 PM	1	Cation Exchange Capacity- ** 5 Day TAT **	-08

4.5+4.5

5719 6195 0631

J055

Sample Receipt Checklist

COC Seal Present/Intact: Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
RAD Screen <0.5 mR/hr: Y N

If Applicable
VOA Zero Headspace: Y N
Pres.Correct/Check: Y N

SPE

Please include the LAB ID and the CLIENT SAMPLE ID on all final reports. Please e-mail results to lab@hallenvironmental.com. Please return all coolers and blue ice. Thank you.

Relinquished By:	Date: 1/30/2023	Time: 11:39 AM	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date: 1/31/23	Time: 9:30

TAT: Standard ☐ RUSH Next BD ☐ 2nd BD ☐ 3rd BD ☐

REPORT TRANSMITTAL DESIRED:
☐ HARDCOPY (extra cost) ☐ FAX ☐ EMAIL ☐ ONLINE

FOR LAB USE ONLY
Temp of samples ____ ℃ Attempt to Cool? ____
Comments: ____

Pace Analytical
1673 Terra Avenue Sheridan, WY 82801 ph: (307) 672-8945

Date: 2/10/2023

CLIENT: Pace National
Project: L1580746
Lab Order: S2302049

CASE NARRATIVE

Report ID: S2302049001

Entire Report Reviewed by: Crystal Herman

Crystal Herman, Mining Supervisor

Samples 2301A84-001B HAB1-14"-20", 2301A84-002B HAB2-26"-32", 2301A84-003B HAB3-9"-15", 2301A84-004B HAB4-15"-18", 2301A84-005B HAB5-8"-13", 2301A84-006B HAB6-13"-14"", 2301A84-007B HAB7-6"-12"" and 2301A84-008B HAB8-12"-15" were received on February 3, 2023.

Samples were analyzed using the methods outlined in the following references:

U.S.E.P.A. 600/2-78-054 "Field and Laboratory Methods Applicable to Overburden and Mining Soils", 1978
American Society of Agronomy, Number 9, Part 2, 1982
USDA Handbook 60 "Diagnosis and Improvement of Saline and Alkali Soils", 1969
Wyoming Department of Environmental Quality, Land Quality Division, Guideline No. 1, 1984
New Mexico Overburden and Soils Inventory and Handling Guideline, March 1987
State of Utah, Division of Oil, Gas, and Mining: Guidelines for Management of Topsoil and Overburden for Underground and Surface Coal Mining, April 1988
Montana Department of State Lands, Reclamation Division: Soil, Overburden, and Regraded Spoil Guidelines, August 1998
State of Nevada Modified Sobek Procedure
Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

All Quality Control parameters met the acceptance criteria defined by EPA and Pace Analytical (Formerly Inter-Mountain Laboratories) except as indicated in this case narrative.

Pace Analytical
1673 Terra Avenue Sheridan, WY 82801 ph: (307) 672-8945

Date: 2/10/2023

Definitions

RL	Reporting Limit

Qualifiers

*	Value exceeds Maximum Contaminant Level
A	Check MSA specifications
B	Analyte detected in the associated Method Blank
C	Calculated Value
D	Report limit raised due to dilution
E	Value above quantitation range
G	Analyzed at Pace Gillette, WY laboratory
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
L	Analyzed by another laboratory
M	Value exceeds Monthly Ave or MCL or is less than LCL
ND	Not Detected at the Reporting Limit
O	Outside the Range of Dilutions
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
U	Analyte below method detection limit
X	Matrix Effect

Pace Analytical
1673 Terra Avenue Sheridan, WY 82801 ph: (307) 672-8945

Soil Analysis Report

Pace National
12065 Lebanon Road
Mt. Juliet, TN 37122

Report ID: S2302049001

Project: L1580746
Date Received: 2/3/2023

Date Reported: 2/10/2023
Work Order: S2302049

Lab ID	Sample ID	CEC meq/100g
S2302049-001	2301A84-001B HAB1-14"-20"	36
S2302049-002	2301A84-002B HAB2-26"-32"	35
S2302049-003	2301A84-003B HAB3-9"-15"	25
S2302049-004	2301A84-004B HAB4-15"-18"	25
S2302049-005	2301A84-005B HAB5-8"-13"	37
S2302049-006	2301A84-006B HAB6-13"-14""	33
S2302049-007	2301A84-007B HAB7-6"-12""	18
S2302049-008	2301A84-008B HAB8-12"-15"	17

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
Abbreviations used in acid base accounting: T.S.= Total Sulfur, AB= Acid Base, ABP= Acid Base Potential, PyrS= Pyritic Sulfur, Pyr+Org= Pyritic Sulfur + Organic Sulfur, Neutral. Pot.= Neutralization Potential
Miscellaneous Abbreviations: SAR= Sodium Adsorption Ratio, CEC= Cation Exchange Capacity, ESP= Exchangeable Sodium Percentage, TOC=Total Organic Carbon

Reviewed by: Crystal Herman
Crystal Herman, Mining Supervisor

Pace Analytical

1673 Terra Avenue Sheridan, WY 82801 ph: (307) 672-8945

ANALYTICAL QC SUMMARY REPORT

CLIENT: Pace National

Work Order: S2302049

Project: L1580746

Date: 2/10/2023

Report ID: S2302049001

Cation Exchange Capacity Sample Type **MBLK** Units: meq/100g

CEC BLK (02/09/23 11:27) RunNo: 207889

Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
Cation Exchange Capacity	ND	2					

Cation Exchange Capacity Sample Type **LCS** Units: meq/100g

CEC QC (02/09/23 11:25) RunNo: 207889

Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
Cation Exchange Capacity	23	2	20.8		109	70 - 130	

Cation Exchange Capacity Sample Type **DUP** Units: meq/100g

S2302049-008AD (02/09/23 11:09) RunNo: 207889

Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
Cation Exchange Capacity	18	2	17	0.763		20	

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A — Required Client Information:

Company: Pace Analytical
Address: 12065 Lebanon Rd.
Mt. Juliet, TN 37122
Email: MTJLSuboutTeam@pacelabs.com
Phone: (615) 773-9756 Fax (615) 758-5859
Requested Due Date: 7-Feb

Section B — Required Project Information:

Report To: Pace Analytical Subout Team
Copy To:
Purchase Order #: L1580746
Project Name:
Project #:

Section C — Invoice Information:

Attention: Andy Freeman
Company Name:
Address:
Pace Quote:
Pace Project Manager: John Jacobs
Pace Profile #: 38076

Regulatory Agency:
State / Location: WY 82801, WY 82801

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N): Analyses Test Y/N	Cation Exchange Capacity	Residual Chlorine (Y/N)
1	2301A84-001B HAB1-14"-20"	SL				27-Jan	9:15		1	1								X		
2	2301A84-002B HAB2-26"-32"	SL				27-Jan	9:15		1	1								X		
3	2301A84-003B HAB3-9"-15"	SL				27-Jan	10:20		1	1								X		
4	2301A84-004B HAB4-15"-18""	SL				27-Jan	10:40		1	1								X		
5	2301A84-005B HAB5-8"-13""	SL				27-Jan	11:40		1	1								X		
6	2301A84-006B HAB6-13"-14""	SL				27-Jan	11:50		1	1								X		
7	2301A84-007B HAB7-6"-12""	SL				27-Jan	13:45		1	1								X		
8	2301A84-008B HAB8-12"-15"	SL				27-Jan	13:55		1	1								X		
9																				
10																				
11																				
12																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	James C Huckaba	31-Jan	17:12	PACE	2/3/23	17:30		N	Y	Y
Pace Analytical Batch: WG1997738										
Pace Analytical SDGs: L1580746										
Location: Sheridan, WY 82801										

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER:
SIGNATURE of SAMPLER: DATE Signed:

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2301A84**

14-Feb-23

Client: Intera, Inc.

Project: OCD Reed Estate 001

Sample ID: **MB-72970**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **72970**	RunNo: **94396**
Prep Date: **2/2/2023**	Analysis Date: **2/2/2023**	SeqNo: **3409902** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.30								
Chloride	ND	1.5								
Nitrogen, Nitrite (As N)	ND	0.30								
Bromide	ND	0.30								
Nitrogen, Nitrate (As N)	ND	0.30								
Sulfate	ND	1.5								

Sample ID: **LCS-72970**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **72970**	RunNo: **94396**
Prep Date: **2/2/2023**	Analysis Date: **2/2/2023**	SeqNo: **3409903** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.6	0.30	1.500	0	108	90	110			
Chloride	15	1.5	15.00	0	97.6	90	110			
Nitrogen, Nitrite (As N)	3.0	0.30	3.000	0	99.3	90	110			
Bromide	7.5	0.30	7.500	0	99.5	90	110			
Nitrogen, Nitrate (As N)	7.7	0.30	7.500	0	102	90	110			
Sulfate	29	1.5	30.00	0	97.2	90	110			

Sample ID: **2301A84-001AMS**	SampType: **ms**	TestCode: **EPA Method 300.0: Anions**
Client ID: **HAB1-14"-20"**	Batch ID: **72970**	RunNo: **94396**
Prep Date: **2/2/2023**	Analysis Date: **2/2/2023**	SeqNo: **3409939** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	17	7.5	15.00	0	113	44.8	154			
Nitrogen, Nitrite (As N)	3.1	1.5	3.000	0	103	84.7	110			
Bromide	7.8	1.5	7.500	0	104	83.8	110			
Nitrogen, Nitrate (As N)	7.5	1.5	7.500	0	101	76.2	122			
Sulfate	53	7.5	30.00	25.66	92.8	40.3	120			

Sample ID: **2301A84-001AMSD**	SampType: **msd**	TestCode: **EPA Method 300.0: Anions**
Client ID: **HAB1-14"-20"**	Batch ID: **72970**	RunNo: **94396**
Prep Date: **2/2/2023**	Analysis Date: **2/2/2023**	SeqNo: **3409940** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	17	7.5	15.00	0	113	44.8	154	0.361	20	
Nitrogen, Nitrite (As N)	3.1	1.5	3.000	0	102	84.7	110	1.10	20	
Bromide	7.7	1.5	7.500	0	102	83.8	110	1.30	20	
Nitrogen, Nitrate (As N)	7.5	1.5	7.500	0	100	76.2	122	0.535	20	
Sulfate	54	7.5	30.00	25.66	95.8	40.3	120	1.69	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2301A84**

14-Feb-23

Client: Intera, Inc.

Project: OCD Reed Estate 001

Sample ID: **2301A84-002AMS** SampType: **ms** TestCode: **EPA Method 300.0: Anions**

Client ID: **HAB2-26"-32"** Batch ID: **72970** RunNo: **94396**

Prep Date: **2/2/2023** Analysis Date: **2/2/2023** SeqNo: **3409943** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	19	7.5	15.00	0	129	44.8	154			
Nitrogen, Nitrite (As N)	3.1	1.5	3.000	0	102	84.7	110			
Bromide	7.6	1.5	7.500	0	101	83.8	110			
Nitrogen, Nitrate (As N)	7.5	1.5	7.500	0	100	76.2	122			
Sulfate	56	7.5	30.00	28.82	91.0	40.3	120			

Sample ID: **2301A84-002AMSD** SampType: **msd** TestCode: **EPA Method 300.0: Anions**

Client ID: **HAB2-26"-32"** Batch ID: **72970** RunNo: **94396**

Prep Date: **2/2/2023** Analysis Date: **2/2/2023** SeqNo: **3409944** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	19	7.5	15.00	0	128	44.8	154	0.970	20	
Nitrogen, Nitrite (As N)	3.1	1.5	3.000	0	102	84.7	110	0.492	20	
Bromide	7.6	1.5	7.500	0	102	83.8	110	1.01	20	
Nitrogen, Nitrate (As N)	7.4	1.5	7.500	0	99.2	76.2	122	0.963	20	
Sulfate	57	7.5	30.00	28.82	92.5	40.3	120	0.792	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2301A84**

14-Feb-23

Client: Intera, Inc.

Project: OCD Reed Estate 001

Sample ID: **LCS-72898**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **72898**	RunNo: **94303**
Prep Date: **1/30/2023**	Analysis Date: **1/31/2023**	SeqNo: **3406297** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	10	50.00	0	106	61.9	130			
Surr: DNOP	6.1		5.000		121	69	147			

Sample ID: **MB-72898**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **72898**	RunNo: **94303**
Prep Date: **1/30/2023**	Analysis Date: **1/31/2023**	SeqNo: **3406300** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		109	69	147			

Sample ID: **2301A84-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **HAB1-14"-20"**	Batch ID: **72898**	RunNo: **94303**
Prep Date: **1/30/2023**	Analysis Date: **1/31/2023**	SeqNo: **3407492** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	9.6	47.80	0	90.8	54.2	135			
Surr: DNOP	5.4		4.780		114	69	147			

Sample ID: **2301A84-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **HAB1-14"-20"**	Batch ID: **72898**	RunNo: **94303**
Prep Date: **1/30/2023**	Analysis Date: **1/31/2023**	SeqNo: **3407493** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	9.8	49.21	0	92.9	54.2	135	5.18	29.2	
Surr: DNOP	5.7		4.921		116	69	147	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2301A84**

14-Feb-23

Client: Intera, Inc.

Project: OCD Reed Estate 001

Sample ID: **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **GS94389**	RunNo: **94389**
Prep Date:	Analysis Date: **2/4/2023**	SeqNo: **3410187** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	114	72.3	137			
Surr: BFB	1100		1000		112	37.7	212			

Sample ID: **2301a84-001ams**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **HAB1-14"-20"**	Batch ID: **GS94389**	RunNo: **94389**
Prep Date:	Analysis Date: **2/4/2023**	SeqNo: **3410189** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	40	7.5	37.60	0	106	70	130			
Surr: BFB	1700		1504		113	37.7	212			

Sample ID: **2301a84-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **HAB1-14"-20"**	Batch ID: **GS94389**	RunNo: **94389**
Prep Date:	Analysis Date: **2/4/2023**	SeqNo: **3410190** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	40	7.5	37.60	0	106	70	130	0.793	20	
Surr: BFB	1700		1504		112	37.7	212	0	0	

Sample ID: **MB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **GS94389**	RunNo: **94389**
Prep Date:	Analysis Date: **2/4/2023**	SeqNo: **3410262** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		99.8	37.7	212			

Sample ID: **mb 2**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **G94421**	RunNo: **94421**
Prep Date:	Analysis Date: **2/4/2023**	SeqNo: **3411275** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1100		1000		108	37.7	212			

Sample ID: **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **GS94497**	RunNo: **94497**
Prep Date:	Analysis Date: **2/9/2023**	SeqNo: **3414883** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2301A84**

14-Feb-23

Client: Intera, Inc.

Project: OCD Reed Estate 001

Sample ID: **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **GS94497**	RunNo: **94497**
Prep Date:	Analysis Date: **2/9/2023**	SeqNo: **3414883** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	113	72.3	137			
Surr: BFB	1100		1000		106	37.7	212			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **GS94497**	RunNo: **94497**
Prep Date:	Analysis Date: **2/9/2023**	SeqNo: **3414948** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	970		1000		97.3	37.7	212			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2301A84**

14-Feb-23

Client: Intera, Inc.

Project: OCD Reed Estate 001

Sample ID: **100ng btex lcs**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **R94389**	RunNo: **94389**
Prep Date:	Analysis Date: **2/4/2023**	SeqNo: **3410226** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.82	0.025	1.000	0	81.8	80	120			
Toluene	0.86	0.050	1.000	0	85.7	80	120			
Ethylbenzene	0.86	0.050	1.000	0	86.3	80	120			
Xylenes, Total	2.6	0.10	3.000	0	87.0	80	120			
Surr: 4-Bromofluorobenzene	0.92		1.000		92.5	70	130			

Sample ID: **2301a84-002ams**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **HAB2-26"-32"**	Batch ID: **R94389**	RunNo: **94389**
Prep Date:	Analysis Date: **2/4/2023**	SeqNo: **3410230** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.037	1.490	0	80.8	68.8	120			
Toluene	1.3	0.075	1.490	0.02578	83.9	73.6	124			
Ethylbenzene	1.3	0.075	1.490	0	86.6	72.7	129			
Xylenes, Total	3.9	0.15	4.471	0.04247	85.8	75.7	126			
Surr: 4-Bromofluorobenzene	1.4		1.490		91.3	70	130			

Sample ID: **2301a84-002amsd**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **HAB2-26"-32"**	Batch ID: **R94389**	RunNo: **94389**
Prep Date:	Analysis Date: **2/4/2023**	SeqNo: **3410231** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.037	1.490	0	79.8	68.8	120	1.25	20	
Toluene	1.3	0.075	1.490	0.02578	83.0	73.6	124	0.986	20	
Ethylbenzene	1.3	0.075	1.490	0	85.1	72.7	129	1.70	20	
Xylenes, Total	3.8	0.15	4.471	0.04247	84.7	75.7	126	1.32	20	
Surr: 4-Bromofluorobenzene	1.4		1.490		95.0	70	130	0	0	

Sample ID: **MB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **R94389**	RunNo: **94389**
Prep Date:	Analysis Date: **2/4/2023**	SeqNo: **3410263** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.90		1.000		89.6	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2301A84**

14-Feb-23

Client: Intera, Inc.

Project: OCD Reed Estate 001

Sample ID: **100ng btex lcs**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **B94421**	RunNo: **94421**
Prep Date:	Analysis Date: **2/4/2023**	SeqNo: **3411509** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	93.6	80	120			
Toluene	0.99	0.050	1.000	0	98.7	80	120			
Ethylbenzene	1.0	0.050	1.000	0	100	80	120			
Xylenes, Total	3.0	0.10	3.000	0	101	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	70	130			

Sample ID: **mb 2**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **B94421**	RunNo: **94421**
Prep Date:	Analysis Date: **2/4/2023**	SeqNo: **3411510** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		104	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2301A84**

14-Feb-23

Client: Intera, Inc.

Project: OCD Reed Estate 001

Sample ID: **MB-73026**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS**	Batch ID: **73026**	RunNo: **94493**
Prep Date: **2/6/2023**	Analysis Date: **2/8/2023**	SeqNo: **3414797** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	50								
Magnesium	ND	50								
Potassium	ND	50								
Sodium	ND	50								

Sample ID: **LCS-73026**	SampType: **LCS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS**	Batch ID: **73026**	RunNo: **94493**
Prep Date: **2/6/2023**	Analysis Date: **2/8/2023**	SeqNo: **3414799** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	2100	50	2500	0	85.2	80	120			
Magnesium	2200	50	2500	0	87.0	80	120			
Potassium	2100	50	2500	0	84.9	80	120			
Sodium	2200	50	2500	0	87.9	80	120			

Sample ID: **2301A84-007AMS**	SampType: **MS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **HAB7-6"-12"**	Batch ID: **73026**	RunNo: **94493**
Prep Date: **2/6/2023**	Analysis Date: **2/8/2023**	SeqNo: **3414825** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	4100	99	2463	1890	87.8	75	125			
Potassium	4000	99	2463	1662	95.2	75	125			
Sodium	2200	99	2463	0	88.2	75	125			

Sample ID: **2301A84-007AMSD**	SampType: **MSD**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **HAB7-6"-12"**	Batch ID: **73026**	RunNo: **94493**
Prep Date: **2/6/2023**	Analysis Date: **2/8/2023**	SeqNo: **3414826** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	4000	99	2464	1890	85.1	75	125	1.62	20	
Potassium	3900	99	2464	1662	91.9	75	125	1.98	20	
Sodium	2100	99	2464	0	87.1	75	125	1.25	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2301A84**

14-Feb-23

Client: Intera, Inc.

Project: OCD Reed Estate 001

Sample ID:	**2301A84-007ADUP**	SampType:	**DUP**		TestCode:	**SM4500H+B/EPA 9040C**					
Client ID:	**HAB7-6"-12"**	Batch ID:	**R94434**		RunNo:	**94434**					
Prep Date:		Analysis Date:	**2/6/2023**		SeqNo:	**3412095**	Units:	**pH Units**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH		8.11									

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Intera, Inc. Work Order Number: 2301A84 RcptNo: 1

Received By: Tracy Casarrubias 1/28/2023 8:00:00 AM

Completed By: Tracy Casarrubias 1/28/2023 10:30:46 AM

Reviewed By: JA 4/30/23

Chain of Custody

1. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: TME 1/28/23

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks: Water infiltrated jar (2 of 3) in sample 008 - TME 1/28/23

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.7	Good	Yes	Morty		

Chain-of-Custody Record

Client: Emily Woolsey - Intera

Mailing Address: 2440 Louisiana Blvd NE Suite 700, Albuquerque, NM 87110

Phone #: 505-246-1600

email or Fax#: ewoolsey@intera.com

QA/QC Package: ☑ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other

☒ EDD (Type) Excel

Turn-Around Time: ☐ Standard ☒ Rush

Project Name: OCD-Reed Estate #001

Project #: NMGSD.NM005.OCD-Reed001

Project Manager: Emily Woolsey

Sampler: Orlando Reyna Justin Kirkes

On Ice: ☒ Yes ☐ No

# of Coolers: 1 Morty

Cooler Temp(including CF): 3.6 +0.1: 3.7 (°C)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2301A94
1/27/23	0915	SOIL	HAB1 - 14" - 20"	3) 4 oz jars a) 40 mL	NA MeOH	001
	0915		HAB2 - 26" - 32"			002
	1020		HAB3 - 9" - 15"			003
	1040		HAB4 - 15" - 18"			004
	1140		HAB5 - 8" - 13"			005
	1250		HAB6 - 13" - 14"			006
	1345		HAB7 - 6" - 12"			007
	1355		HAB8 - 12" - 15"			008

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
1/27/23	3:30	Justin Kirkes				
Date:	Time:	Relinquished by:	Received by:	Via: courier	Date	Time
					1/28/23	8:00

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

BTEX / MTBE / TMB's (8021)	TPH:8015D GRO / DRO / (MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	PH MM500-H+B	CEC	Cations / Metals (SW6010B)			
X	X					X				X	X	X			
X	X					X				X	X	X			
X	X					X				X	X	X			
X	X					X				X	X	X			
X	X					X				X	X	X			
X	X					X				X	X	X			
X	X					X				R	X	X			
X	X					X				X	X	X			

Remarks: Quote: 2711

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

QUOTATION

Quote#: **2711**
Date: **1/23/2023**

Company: Intera, Inc.
Contact: Emily Woolsey
Address: 2440 Louisana Blvd NE Suite 700

Albuquerque, NM 87110

Phone:
Fax:

Project: Soil Remediation
TAT: 10 working days
QC Level: LEVEL II
Project Manager: Andy Freeman
Sales Rep:
Quote Expires: 12/31/2023

Item Description	Test	Matrix	Remarks	Qty
BTEX/GRO/DRO Soil		Soil		1
EPA Method 300.0: Anions	E300	Soil		1
EPA Method 6010B: Soil Metals	SW6010B	Soil	Ca, Mg, K, Na	1
Cation Exchange Capacity	CEC	Soil		1
SM4500H+B/EPA 9040C	M4500-H+B	Soil		1

Miscellaneous Charge Summary

Item	Unit	Qty	Total
Methanol Kit	20.00	15	300.00
1 Sample Disposal and Bottle Charge	6.00	1	6.00

Sincerely,

Jackie Bolte

Jackie Bolte
Administration
Phone: 505-345-3975
Email: jnb@hallenvironmental.com

Terms and Conditions:

Hall Environmental Analysis Laboratory (HEAL) will provide all sampling containers, coolers, chains of custody and labels. A be provided with this report, including lab spikes and lab spike duplicates. NM State tax has not been included in this quotation. charge will be applied to all workorders/invoices for sample disposal/bottle charge. Thank you, for the opportunity to bid on this project. Please feel free to call with any questions (505) 345-3975. Invoices can be paid via Visa, Master Card, American Express, Company Check or Cash. If invoices are paid with a credit card a 2.5% charge will be applied.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
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Website: www.hallenvironmental.com

April 10, 2023

Emily Woolsey

Intera, Inc.
2440 Louisana Blvd NE Suite 700
Albuquerque, NM 87110
TEL:
FAX:

RE: Reed Estate 001 OrderNo.: 2303969

Dear Emily Woolsey:

Hall Environmental Analysis Laboratory received 13 sample(s) on 3/17/2023 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2303969**
Date Reported: **4/10/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** T1-A (4'-5.5')
Project: Reed Estate 001 **Collection Date:** 3/14/2023 11:44:00 AM
Lab ID: 2303969-001 **Matrix:** SOIL **Received Date:** 3/17/2023 4:53:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **SNS**	
Fluoride	9.6	1.5		mg/Kg	5	3/20/2023 12:27:09 PM	73801
Chloride	640	30		mg/Kg	20	3/20/2023 12:39:33 PM	73801
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	3/20/2023 12:27:09 PM	73801
Bromide	ND	1.5		mg/Kg	5	3/20/2023 12:27:09 PM	73801
Nitrogen, Nitrate (As N)	2.1	1.5		mg/Kg	5	3/20/2023 12:27:09 PM	73801
Sulfate	340	7.5		mg/Kg	5	3/20/2023 12:27:09 PM	73801
EPA METHOD 6010B: SOIL METALS						Analyst: **JRR**	
Calcium	180000	2500		mg/Kg	50	3/27/2023 3:20:34 PM	73858
Magnesium	3700	99		mg/Kg	2	3/27/2023 2:45:41 PM	73858
Potassium	1600	99		mg/Kg	2	3/27/2023 2:45:41 PM	73858
Sodium	1500	99		mg/Kg	2	3/27/2023 2:45:41 PM	73858
SM4500H+B/EPA 9040C						Analyst: **SNS**	
pH	9.43			pH Units	1	3/28/2023 5:36:00 PM	R95633

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2303969**
Date Reported: **4/10/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** T1-B (4'-5')
Project: Reed Estate 001 **Collection Date:** 3/14/2023 1:22:00 PM
Lab ID: 2303969-002 **Matrix:** SOIL **Received Date:** 3/17/2023 4:53:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **SNS**	
Fluoride	ND	1.5		mg/Kg	5	3/20/2023 12:51:58 PM	73801
Chloride	1200	75		mg/Kg	50	3/20/2023 11:12:25 PM	73801
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	3/20/2023 12:51:58 PM	73801
Bromide	ND	1.5		mg/Kg	5	3/20/2023 12:51:58 PM	73801
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	3/20/2023 12:51:58 PM	73801
Sulfate	2900	30		mg/Kg	20	3/20/2023 1:04:23 PM	73801
EPA METHOD 6010B: SOIL METALS						Analyst: **JRR**	
Calcium	190000	2400		mg/Kg	50	3/27/2023 3:22:06 PM	73858
Magnesium	5300	97		mg/Kg	2	3/27/2023 2:47:20 PM	73858
Potassium	1600	97		mg/Kg	2	3/27/2023 2:47:20 PM	73858
Sodium	1900	97		mg/Kg	2	3/27/2023 2:47:20 PM	73858
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	3/22/2023 6:57:09 PM	73836
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	3/22/2023 6:57:09 PM	73836
Surr: DNOP	89.0	69-147		%Rec	1	3/22/2023 6:57:09 PM	73836
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	3/21/2023 5:01:34 PM	73817
Surr: BFB	104	37.7-212		%Rec	1	3/21/2023 5:01:34 PM	73817
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.023		mg/Kg	1	3/21/2023 5:01:34 PM	73817
Toluene	ND	0.047		mg/Kg	1	3/21/2023 5:01:34 PM	73817
Ethylbenzene	ND	0.047		mg/Kg	1	3/21/2023 5:01:34 PM	73817
Xylenes, Total	ND	0.094		mg/Kg	1	3/21/2023 5:01:34 PM	73817
Surr: 4-Bromofluorobenzene	94.3	70-130		%Rec	1	3/21/2023 5:01:34 PM	73817
SM4500H+B/EPA 9040C						Analyst: **SNS**	
pH	7.90			pH Units	1	3/28/2023 5:36:00 PM	R95633

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2303969**
Date Reported: **4/10/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** T1-D (10'-11')
Project: Reed Estate 001 **Collection Date:** 3/14/2023 3:20:00 PM
Lab ID: 2303969-003 **Matrix:** MEOH (SOIL) **Received Date:** 3/17/2023 4:53:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **SNS**	
Fluoride	9.4	1.5		mg/Kg	5	3/20/2023 1:16:48 PM	73801
Chloride	ND	7.5		mg/Kg	5	3/20/2023 1:16:48 PM	73801
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	3/20/2023 1:16:48 PM	73801
Bromide	ND	1.5		mg/Kg	5	3/20/2023 1:16:48 PM	73801
Nitrogen, Nitrate (As N)	5.0	1.5		mg/Kg	5	3/20/2023 1:16:48 PM	73801
Sulfate	590	7.5		mg/Kg	5	3/20/2023 1:16:48 PM	73801
EPA METHOD 6010B: SOIL METALS						Analyst: **JRR**	
Calcium	200000	2500		mg/Kg	50	3/27/2023 3:23:38 PM	73858
Magnesium	8800	98		mg/Kg	2	3/27/2023 2:49:01 PM	73858
Potassium	1300	98		mg/Kg	2	3/27/2023 2:49:01 PM	73858
Sodium	530	98		mg/Kg	2	3/27/2023 2:49:01 PM	73858
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**	
Diesel Range Organics (DRO)	36	9.7	H	mg/Kg	1	3/31/2023 9:06:30 PM	74022
Motor Oil Range Organics (MRO)	ND	48	H	mg/Kg	1	3/31/2023 9:06:30 PM	74022
Surr: DNOP	113	69-147	H	%Rec	1	3/31/2023 9:06:30 PM	74022
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	3/20/2023 8:58:05 PM	73777
Surr: BFB	110	37.7-212		%Rec	1	3/20/2023 8:58:05 PM	73777
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.020		mg/Kg	1	3/20/2023 8:58:05 PM	73777
Toluene	ND	0.040		mg/Kg	1	3/20/2023 8:58:05 PM	73777
Ethylbenzene	ND	0.040		mg/Kg	1	3/20/2023 8:58:05 PM	73777
Xylenes, Total	ND	0.080		mg/Kg	1	3/20/2023 8:58:05 PM	73777
Surr: 4-Bromofluorobenzene	92.2	70-130		%Rec	1	3/20/2023 8:58:05 PM	73777
SM4500H+B/EPA 9040C						Analyst: **SNS**	
pH	8.89			pH Units	1	3/28/2023 5:36:00 PM	R95633

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2303969**
Date Reported: **4/10/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** T1-D (15'-16')
Project: Reed Estate 001 **Collection Date:** 3/14/2023 4:37:00 PM
Lab ID: 2303969-004 **Matrix:** MEOH (SOIL) **Received Date:** 3/17/2023 4:53:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **SNS**	
Fluoride	6.8	1.5		mg/Kg	5	3/20/2023 1:41:37 PM	73801
Chloride	ND	7.5		mg/Kg	5	3/20/2023 1:41:37 PM	73801
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	3/20/2023 1:41:37 PM	73801
Bromide	ND	1.5		mg/Kg	5	3/20/2023 1:41:37 PM	73801
Nitrogen, Nitrate (As N)	1.8	1.5		mg/Kg	5	3/20/2023 1:41:37 PM	73801
Sulfate	290	7.5		mg/Kg	5	3/20/2023 1:41:37 PM	73801
EPA METHOD 6010B: SOIL METALS						Analyst: **JRR**	
Calcium	240000	2500		mg/Kg	50	3/27/2023 3:25:11 PM	73858
Magnesium	8000	99		mg/Kg	2	3/27/2023 2:55:36 PM	73858
Potassium	410	99		mg/Kg	2	3/27/2023 2:55:36 PM	73858
Sodium	150	99		mg/Kg	2	3/27/2023 2:55:36 PM	73858
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**	
Diesel Range Organics (DRO)	ND	9.5	H	mg/Kg	1	3/31/2023 9:27:25 PM	74022
Motor Oil Range Organics (MRO)	ND	47	H	mg/Kg	1	3/31/2023 9:27:25 PM	74022
Surr: DNOP	107	69-147	H	%Rec	1	3/31/2023 9:27:25 PM	74022
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	3/20/2023 9:21:46 PM	73777
Surr: BFB	101	37.7-212		%Rec	1	3/20/2023 9:21:46 PM	73777
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.023		mg/Kg	1	3/20/2023 9:21:46 PM	73777
Toluene	ND	0.046		mg/Kg	1	3/20/2023 9:21:46 PM	73777
Ethylbenzene	ND	0.046		mg/Kg	1	3/20/2023 9:21:46 PM	73777
Xylenes, Total	ND	0.091		mg/Kg	1	3/20/2023 9:21:46 PM	73777
Surr: 4-Bromofluorobenzene	92.7	70-130		%Rec	1	3/20/2023 9:21:46 PM	73777
SM4500H+B/EPA 9040C						Analyst: **SNS**	
pH	8.53			pH Units	1	3/28/2023 5:36:00 PM	R95633

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2303969**
Date Reported: **4/10/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** T4-A (13'-14.5')
Project: Reed Estate 001 **Collection Date:** 3/15/2023 10:45:00 AM
Lab ID: 2303969-005 **Matrix:** MEOH (SOIL) **Received Date:** 3/17/2023 4:53:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **SNS**	
Fluoride	6.1	1.5		mg/Kg	5	3/20/2023 2:31:15 PM	73801
Chloride	300	30		mg/Kg	20	3/20/2023 2:43:39 PM	73801
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	3/20/2023 2:31:15 PM	73801
Bromide	ND	1.5		mg/Kg	5	3/20/2023 2:31:15 PM	73801
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	3/20/2023 2:31:15 PM	73801
Sulfate	230	7.5		mg/Kg	5	3/20/2023 2:31:15 PM	73801
EPA METHOD 6010B: SOIL METALS						Analyst: **JRR**	
Calcium	260000	4900		mg/Kg	100	3/27/2023 3:46:41 PM	73858
Magnesium	8000	99		mg/Kg	2	3/27/2023 2:57:19 PM	73858
Potassium	320	99		mg/Kg	2	3/27/2023 2:57:19 PM	73858
Sodium	560	99		mg/Kg	2	3/27/2023 2:57:19 PM	73858
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**	
Diesel Range Organics (DRO)	ND	9.9	H	mg/Kg	1	3/31/2023 9:37:51 PM	74022
Motor Oil Range Organics (MRO)	ND	49	H	mg/Kg	1	3/31/2023 9:37:51 PM	74022
Surr: DNOP	109	69-147	H	%Rec	1	3/31/2023 9:37:51 PM	74022
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	3/20/2023 9:45:28 PM	73777
Surr: BFB	101	37.7-212		%Rec	1	3/20/2023 9:45:28 PM	73777
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.020		mg/Kg	1	3/20/2023 9:45:28 PM	73777
Toluene	ND	0.040		mg/Kg	1	3/20/2023 9:45:28 PM	73777
Ethylbenzene	ND	0.040		mg/Kg	1	3/20/2023 9:45:28 PM	73777
Xylenes, Total	ND	0.080		mg/Kg	1	3/20/2023 9:45:28 PM	73777
Surr: 4-Bromofluorobenzene	92.4	70-130		%Rec	1	3/20/2023 9:45:28 PM	73777
SM4500H+B/EPA 9040C						Analyst: **SNS**	
pH	8.96			pH Units	1	3/28/2023 5:36:00 PM	R95633

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2303969**
Date Reported: **4/10/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** T3-D (7.5'-8.5')
Project: Reed Estate 001 **Collection Date:** 3/15/2023 2:05:00 PM
Lab ID: 2303969-006 **Matrix:** MEOH (SOIL) **Received Date:** 3/17/2023 4:53:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **SNS**	
Fluoride	2.1	1.5		mg/Kg	5	3/20/2023 2:56:03 PM	73801
Chloride	ND	7.5		mg/Kg	5	3/20/2023 2:56:03 PM	73801
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	3/20/2023 2:56:03 PM	73801
Bromide	ND	1.5		mg/Kg	5	3/20/2023 2:56:03 PM	73801
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	3/20/2023 2:56:03 PM	73801
Sulfate	37	7.5		mg/Kg	5	3/20/2023 2:56:03 PM	73801
EPA METHOD 6010B: SOIL METALS						Analyst: **JRR**	
Calcium	300000	5000		mg/Kg	100	3/27/2023 3:48:11 PM	73858
Magnesium	5600	99		mg/Kg	2	3/27/2023 2:59:00 PM	73858
Potassium	630	99		mg/Kg	2	3/27/2023 2:59:00 PM	73858
Sodium	110	99		mg/Kg	2	3/27/2023 2:59:00 PM	73858
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**	
Diesel Range Organics (DRO)	ND	9.9	H	mg/Kg	1	3/31/2023 9:48:21 PM	74022
Motor Oil Range Organics (MRO)	ND	50	H	mg/Kg	1	3/31/2023 9:48:21 PM	74022
Surr: DNOP	104	69-147	H	%Rec	1	3/31/2023 9:48:21 PM	74022
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	3/20/2023 10:09:08 PM	73777
Surr: BFB	101	37.7-212		%Rec	1	3/20/2023 10:09:08 PM	73777
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.024		mg/Kg	1	3/20/2023 10:09:08 PM	73777
Toluene	ND	0.048		mg/Kg	1	3/20/2023 10:09:08 PM	73777
Ethylbenzene	ND	0.048		mg/Kg	1	3/20/2023 10:09:08 PM	73777
Xylenes, Total	ND	0.096		mg/Kg	1	3/20/2023 10:09:08 PM	73777
Surr: 4-Bromofluorobenzene	92.9	70-130		%Rec	1	3/20/2023 10:09:08 PM	73777
SM4500H+B/EPA 9040C						Analyst: **SNS**	
pH	8.76			pH Units	1	3/28/2023 5:36:00 PM	R95633

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2303969**
Date Reported: **4/10/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** T3-B2 (3.5'-4.5')
Project: Reed Estate 001 **Collection Date:** 3/15/2023 2:32:00 PM
Lab ID: 2303969-007 **Matrix:** MEOH (SOIL) **Received Date:** 3/17/2023 4:53:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **SNS**	
Fluoride	1.5	1.5		mg/Kg	5	3/20/2023 3:20:52 PM	73801
Chloride	ND	7.5		mg/Kg	5	3/20/2023 3:20:52 PM	73801
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	3/20/2023 3:20:52 PM	73801
Bromide	ND	1.5		mg/Kg	5	3/20/2023 3:20:52 PM	73801
Nitrogen, Nitrate (As N)	2.1	1.5		mg/Kg	5	3/20/2023 3:20:52 PM	73801
Sulfate	ND	7.5		mg/Kg	5	3/20/2023 3:20:52 PM	73801
EPA METHOD 6010B: SOIL METALS						Analyst: **JRR**	
Calcium	190000	2500		mg/Kg	50	3/27/2023 3:29:49 PM	73858
Magnesium	4700	98		mg/Kg	2	3/27/2023 3:00:41 PM	73858
Potassium	800	98		mg/Kg	2	3/27/2023 3:00:41 PM	73858
Sodium	ND	98		mg/Kg	2	3/27/2023 3:00:41 PM	73858
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**	
Diesel Range Organics (DRO)	1000	95	H	mg/Kg	10	3/31/2023 9:58:50 PM	74022
Motor Oil Range Organics (MRO)	1200	470	H	mg/Kg	10	3/31/2023 9:58:50 PM	74022
Surr: DNOP	0	69-147	SH	%Rec	10	3/31/2023 9:58:50 PM	74022
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/28/2023 12:01:58 AM	R95575
Gasoline Range Organics (GRO)	ND	24		mg/Kg	5	3/20/2023 10:32:44 PM	73777
Surr: BFB	94.1	37.7-212		%Rec	1	3/28/2023 12:01:58 AM	R95575
Surr: BFB	99.8	37.7-212		%Rec	5	3/20/2023 10:32:44 PM	73777
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.12		mg/Kg	5	3/20/2023 10:32:44 PM	73777
Benzene	ND	0.025		mg/Kg	1	3/28/2023 12:01:58 AM	R95575
Toluene	ND	0.24		mg/Kg	5	3/20/2023 10:32:44 PM	73777
Toluene	ND	0.050		mg/Kg	1	3/28/2023 12:01:58 AM	R95575
Ethylbenzene	ND	0.24		mg/Kg	5	3/20/2023 10:32:44 PM	73777
Ethylbenzene	ND	0.050		mg/Kg	1	3/28/2023 12:01:58 AM	R95575
Xylenes, Total	ND	0.48		mg/Kg	5	3/20/2023 10:32:44 PM	73777
Xylenes, Total	ND	0.10		mg/Kg	1	3/28/2023 12:01:58 AM	R95575
Surr: 4-Bromofluorobenzene	86.4	70-130		%Rec	1	3/28/2023 12:01:58 AM	R95575
Surr: 4-Bromofluorobenzene	90.2	70-130		%Rec	5	3/20/2023 10:32:44 PM	73777
SM4500H+B/EPA 9040C						Analyst: **SNS**	
pH	8.33			pH Units	1	3/28/2023 5:36:00 PM	R95633

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2303969**
Date Reported: **4/10/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** T5-A (8'-10')
Project: Reed Estate 001 **Collection Date:** 3/15/2023 3:53:00 PM
Lab ID: 2303969-008 **Matrix:** MEOH (SOIL) **Received Date:** 3/17/2023 4:53:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **SNS**	
Fluoride	9.3	1.5		mg/Kg	5	3/20/2023 3:45:42 PM	73801
Chloride	50	7.5		mg/Kg	5	3/20/2023 3:45:42 PM	73801
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	3/20/2023 3:45:42 PM	73801
Bromide	ND	1.5		mg/Kg	5	3/20/2023 3:45:42 PM	73801
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	3/20/2023 3:45:42 PM	73801
Sulfate	210	7.5		mg/Kg	5	3/20/2023 3:45:42 PM	73801
EPA METHOD 6010B: SOIL METALS						Analyst: **JRR**	
Calcium	75000	2500		mg/Kg	50	3/27/2023 3:31:24 PM	73858
Magnesium	4500	99		mg/Kg	2	3/27/2023 3:02:20 PM	73858
Potassium	1900	99		mg/Kg	2	3/27/2023 3:02:20 PM	73858
Sodium	450	99		mg/Kg	2	3/27/2023 3:02:20 PM	73858
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**	
Diesel Range Organics (DRO)	ND	9.4	H	mg/Kg	1	3/31/2023 10:19:56 PM	74022
Motor Oil Range Organics (MRO)	ND	47	H	mg/Kg	1	3/31/2023 10:19:56 PM	74022
Surr: DNOP	118	69-147	H	%Rec	1	3/31/2023 10:19:56 PM	74022
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	3/21/2023 12:53:57 AM	R95394
Surr: BFB	101	37.7-212		%Rec	1	3/21/2023 12:53:57 AM	R95394
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.019		mg/Kg	1	3/21/2023 12:53:57 AM	R95394
Toluene	ND	0.038		mg/Kg	1	3/21/2023 12:53:57 AM	R95394
Ethylbenzene	ND	0.038		mg/Kg	1	3/21/2023 12:53:57 AM	R95394
Xylenes, Total	ND	0.076		mg/Kg	1	3/21/2023 12:53:57 AM	R95394
Surr: 4-Bromofluorobenzene	92.6	70-130		%Rec	1	3/21/2023 12:53:57 AM	R95394
SM4500H+B/EPA 9040C						Analyst: **SNS**	
pH	8.63			pH Units	1	3/28/2023 5:36:00 PM	R95633

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2303969**
Date Reported: **4/10/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** T5-B (3'-4')
Project: Reed Estate 001 **Collection Date:** 3/15/2023 4:10:00 PM
Lab ID: 2303969-009 **Matrix:** MEOH (SOIL) **Received Date:** 3/17/2023 4:53:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **SNS**	
Fluoride	3.4	1.5		mg/Kg	5	3/20/2023 4:10:31 PM	73801
Chloride	290	30		mg/Kg	20	3/20/2023 4:22:56 PM	73801
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	3/20/2023 4:10:31 PM	73801
Bromide	ND	1.5		mg/Kg	5	3/20/2023 4:10:31 PM	73801
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	3/20/2023 4:10:31 PM	73801
Sulfate	8.8	7.5		mg/Kg	5	3/20/2023 4:10:31 PM	73801
EPA METHOD 6010B: SOIL METALS						Analyst: **JRR**	
Calcium	25000	2500		mg/Kg	50	3/30/2023 11:15:23 AM	73943
Magnesium	1600	98		mg/Kg	2	3/30/2023 11:23:31 AM	73943
Potassium	1700	98		mg/Kg	2	3/30/2023 11:23:31 AM	73943
Sodium	1200	98		mg/Kg	2	3/30/2023 11:23:31 AM	73943
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**	
Diesel Range Organics (DRO)	9300	94	H	mg/Kg	10	3/31/2023 10:30:28 PM	74022
Motor Oil Range Organics (MRO)	3000	470	H	mg/Kg	10	3/31/2023 10:30:28 PM	74022
Surr: DNOP	0	69-147	SH	%Rec	10	3/31/2023 10:30:28 PM	74022
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	56	16	D	mg/Kg	5	3/21/2023 1:17:31 AM	R95394
Surr: BFB	202	37.7-212	D	%Rec	5	3/21/2023 1:17:31 AM	R95394
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.081	D	mg/Kg	5	3/21/2023 1:17:31 AM	R95394
Toluene	ND	0.16	D	mg/Kg	5	3/21/2023 1:17:31 AM	R95394
Ethylbenzene	ND	0.16	D	mg/Kg	5	3/21/2023 1:17:31 AM	R95394
Xylenes, Total	0.33	0.32	D	mg/Kg	5	3/21/2023 1:17:31 AM	R95394
Surr: 4-Bromofluorobenzene	94.6	70-130	D	%Rec	5	3/21/2023 1:17:31 AM	R95394
SM4500H+B/EPA 9040C						Analyst: **SNS**	
pH	9.10			pH Units	1	3/28/2023 5:36:00 PM	R95633

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2303969**
Date Reported: **4/10/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** T5-B (13'-14')
Project: Reed Estate 001 **Collection Date:** 3/15/2023 4:45:00 PM
Lab ID: 2303969-010 **Matrix:** MEOH (SOIL) **Received Date:** 3/17/2023 4:53:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **SNS**	
Fluoride	12	1.5		mg/Kg	5	3/20/2023 5:00:09 PM	73801
Chloride	51	7.5		mg/Kg	5	3/20/2023 5:00:09 PM	73801
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	3/20/2023 5:00:09 PM	73801
Bromide	ND	1.5		mg/Kg	5	3/20/2023 5:00:09 PM	73801
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	3/20/2023 5:00:09 PM	73801
Sulfate	10	7.5		mg/Kg	5	3/20/2023 5:00:09 PM	73801
EPA METHOD 6010B: SOIL METALS						Analyst: **JRR**	
Calcium	140000	2500		mg/Kg	50	3/27/2023 3:39:40 PM	73858
Magnesium	6700	99		mg/Kg	2	3/27/2023 3:05:34 PM	73858
Potassium	1200	99		mg/Kg	2	3/27/2023 3:05:34 PM	73858
Sodium	470	99		mg/Kg	2	3/27/2023 3:05:34 PM	73858
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**	
Diesel Range Organics (DRO)	10000	180	H	mg/Kg	20	4/3/2023 10:47:32 PM	74022
Motor Oil Range Organics (MRO)	2900	920	H	mg/Kg	20	4/3/2023 10:47:32 PM	74022
Surr: DNOP	0	69-147	SH	%Rec	20	4/3/2023 10:47:32 PM	74022
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	650	79	D	mg/Kg	20	3/21/2023 1:40:59 AM	R95394
Surr: BFB	311	37.7-212	SD	%Rec	20	3/21/2023 1:40:59 AM	R95394
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.40	D	mg/Kg	20	3/21/2023 1:40:59 AM	R95394
Toluene	ND	0.79	D	mg/Kg	20	3/21/2023 1:40:59 AM	R95394
Ethylbenzene	2.8	0.79	D	mg/Kg	20	3/21/2023 1:40:59 AM	R95394
Xylenes, Total	22	1.6	D	mg/Kg	20	3/21/2023 1:40:59 AM	R95394
Surr: 4-Bromofluorobenzene	101	70-130	D	%Rec	20	3/21/2023 1:40:59 AM	R95394
SM4500H+B/EPA 9040C						Analyst: **SNS**	
pH	9.18			pH Units	1	3/28/2023 5:36:00 PM	R95633

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2303969**
Date Reported: **4/10/2023**

CLIENT: Intera, Inc.
Client Sample ID: PH-7 (4'-5')
Project: Reed Estate 001
Collection Date: 3/16/2023 11:21:00 AM
Lab ID: 2303969-011 **Matrix:** SOIL **Received Date:** 3/17/2023 4:53:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**SNS**
Fluoride	3.3	1.5		mg/Kg	5	3/20/2023 5:24:58 PM	73801
Chloride	200	7.5		mg/Kg	5	3/20/2023 5:24:58 PM	73801
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	3/20/2023 5:24:58 PM	73801
Bromide	ND	1.5		mg/Kg	5	3/20/2023 5:24:58 PM	73801
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	3/20/2023 5:24:58 PM	73801
Sulfate	1200	30		mg/Kg	20	3/20/2023 5:37:23 PM	73801
EPA METHOD 6010B: SOIL METALS						Analyst:	**JRR**
Calcium	240000	2500		mg/Kg	50	3/27/2023 3:41:13 PM	73858
Magnesium	13000	2500		mg/Kg	50	3/27/2023 3:41:13 PM	73858
Magnesium	12000	99	E	mg/Kg	2	3/27/2023 3:07:12 PM	73858
Potassium	600	99		mg/Kg	2	3/27/2023 3:07:12 PM	73858
Sodium	650	99		mg/Kg	2	3/27/2023 3:07:12 PM	73858
SM4500H+B/EPA 9040C						Analyst:	**SNS**
pH	8.31			pH Units	1	3/28/2023 5:36:00 PM	R95633

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2303969**
Date Reported: **4/10/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** T6-A (5'-6')
Project: Reed Estate 001 **Collection Date:** 3/16/2023 12:05:00 PM
Lab ID: 2303969-012 **Matrix:** MEOH (SOIL) **Received Date:** 3/17/2023 4:53:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **SNS**	
Fluoride	5.5	1.5		mg/Kg	5	3/20/2023 5:49:47 PM	73801
Chloride	2100	75		mg/Kg	50	3/21/2023 9:45:19 AM	73801
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	3/20/2023 5:49:47 PM	73801
Bromide	ND	1.5		mg/Kg	5	3/20/2023 5:49:47 PM	73801
Nitrogen, Nitrate (As N)	4.7	1.5		mg/Kg	5	3/20/2023 5:49:47 PM	73801
Sulfate	33	7.5		mg/Kg	5	3/20/2023 5:49:47 PM	73801
EPA METHOD 6010B: SOIL METALS						Analyst: **JRR**	
Calcium	250000	2500		mg/Kg	50	3/27/2023 3:42:45 PM	73858
Magnesium	6500	100		mg/Kg	2	3/27/2023 3:08:53 PM	73858
Potassium	1300	100		mg/Kg	2	3/27/2023 3:08:53 PM	73858
Sodium	1100	100		mg/Kg	2	3/27/2023 3:08:53 PM	73858
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	3/31/2023 11:12:29 PM	74022
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	3/31/2023 11:12:29 PM	74022
Surr: DNOP	140	69-147		%Rec	1	3/31/2023 11:12:29 PM	74022
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**	
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	3/21/2023 2:04:29 AM	R95394
Surr: BFB	104	37.7-212		%Rec	1	3/21/2023 2:04:29 AM	R95394
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Benzene	ND	0.018		mg/Kg	1	3/21/2023 2:04:29 AM	R95394
Toluene	ND	0.036		mg/Kg	1	3/21/2023 2:04:29 AM	R95394
Ethylbenzene	ND	0.036		mg/Kg	1	3/21/2023 2:04:29 AM	R95394
Xylenes, Total	ND	0.073		mg/Kg	1	3/21/2023 2:04:29 AM	R95394
Surr: 4-Bromofluorobenzene	91.2	70-130		%Rec	1	3/21/2023 2:04:29 AM	R95394
SM4500H+B/EPA 9040C						Analyst: **SNS**	
pH	8.09			pH Units	1	3/28/2023 5:36:00 PM	R95633

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2303969**
Date Reported: **4/10/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** MeOh Blank
Project: Reed Estate 001 **Collection Date:**
Lab ID: 2303969-013 **Matrix:** MEOH BLAN **Received Date:** 3/17/2023 4:53:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**	
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	3/21/2023 2:27:58 AM	R95394
Benzene	ND	0.025		mg/Kg	1	3/21/2023 2:27:58 AM	R95394
Toluene	ND	0.050		mg/Kg	1	3/21/2023 2:27:58 AM	R95394
Ethylbenzene	ND	0.050		mg/Kg	1	3/21/2023 2:27:58 AM	R95394
Xylenes, Total	ND	0.10		mg/Kg	1	3/21/2023 2:27:58 AM	R95394
Surr: 4-Bromofluorobenzene	92.1	70-130		%Rec	1	3/21/2023 2:27:58 AM	R95394

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Pace Analytical®

ANALYTICAL REPORT

April 10, 2023

Hall Environmental Analysis Laboratory

Sample Delivery Group:	L1596677
Samples Received:	03/21/2023
Project Number:	
Description:	

Report To: Andy Freeman
4901 Hawkins NE
Albuquerque, NM 87109

Entire Report Reviewed By:

John Hawkins
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

2303969-001B T1-A (4-5.5) L1596677-01 Solid

Collected by | Collected date/time 03/14/23 11:44 | Received date/time 03/21/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2027283	1	04/07/23 00:00	04/07/23 00:00	-	Sheridan, WY 82801

2303969-002B T1-B (4-5) L1596677-02 Solid

Collected by | Collected date/time 03/14/23 13:22 | Received date/time 03/21/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2027283	1	04/07/23 00:00	04/07/23 00:00	-	Sheridan, WY 82801

2303969-003B T1-D (10-11) L1596677-03 Solid

Collected by | Collected date/time 03/14/23 15:20 | Received date/time 03/21/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2027283	1	04/07/23 00:00	04/07/23 00:00	-	Sheridan, WY 82801

2303969-004B T1-D (15-16) L1596677-04 Solid

Collected by | Collected date/time 03/14/23 16:37 | Received date/time 03/21/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2027283	1	04/07/23 00:00	04/07/23 00:00	-	Sheridan, WY 82801

2303969-005B T4-A (13-14.5) L1596677-05 Solid

Collected by | Collected date/time 03/15/23 10:45 | Received date/time 03/21/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2027283	1	04/07/23 00:00	04/07/23 00:00	-	Sheridan, WY 82801

2303969-006BT3-D (7.5-8.5) L1596677-06 Solid

Collected by | Collected date/time 03/15/23 14:05 | Received date/time 03/21/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2027283	1	04/07/23 00:00	04/07/23 00:00	-	Sheridan, WY 82801

2303969-007B T3-B2 (3.5-4.5) L1596677-07 Solid

Collected by | Collected date/time 03/15/23 14:32 | Received date/time 03/21/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2027283	1	04/07/23 00:00	04/07/23 00:00	-	Sheridan, WY 82801

2303969-008B T5-A (8-10) L1596677-08 Solid

Collected by | Collected date/time 03/15/23 15:53 | Received date/time 03/21/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2027283	1	04/07/23 00:00	04/07/23 00:00	-	Sheridan, WY 82801

2303969-009B T5-B (3-4) L1596677-09 Solid

			Collected by	Collected date/time	Received date/time	
				03/15/23 16:10	03/21/23 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2027283	1	04/07/23 00:00	04/07/23 00:00	-	Sheridan, WY 82801

2303969-010B T5-B (13-14) L1596677-10 Solid

			Collected by	Collected date/time	Received date/time	
				03/15/23 16:45	03/21/23 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2027283	1	04/07/23 00:00	04/07/23 00:00	-	Sheridan, WY 82801

2303969-011B PH-7 (4-5) L1596677-11 Solid

			Collected by	Collected date/time	Received date/time	
				03/16/23 11:21	03/21/23 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2027283	1	04/07/23 00:00	04/07/23 00:00	-	Sheridan, WY 82801

2303969-012B T6-A (5-6) L1596677-12 Solid

			Collected by	Collected date/time	Received date/time	
				03/16/23 12:05	03/21/23 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2027283	1	04/07/23 00:00	04/07/23 00:00	-	Sheridan, WY 82801

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

John Hawkins
Project Manager

Project Narrative

L1596677 -01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12 contains subout data that is included after the chain of custody.

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

SDG	Sample Delivery Group.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

CHAIN OF CUSTODY RECORD

PAGE: 1 OF: 1

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque NM
Website: www.hallenvironmental.com

A222

SUB CONTRATOR: Pace TN	COMPANY: PACE TN	PHONE: (800) 767-5859	FAX: (615) 758-5859
ADDRESS: 12065 Lebanon Rd		ACCOUNT #:	EMAIL:
CITY, STATE, ZIP: Mt. Juliet, TN 37122			

L591607

ITEM	SAMPLE	CLIENT SAMPLE ID	BOTTLE TYPE	MATRIX	COLLECTION DATE	# CONTAINERS	ANALYTICAL COMMENTS	
1	2303969-001B	T1-A (4'-5.5')	8OZGU	Soil	3/14/2023 11:44:00 AM	1	Cation Exchange Capacity	-01
2	2303969-002B	T1-B (4'-5')	8OZGU	Soil	3/14/2023 1:22:00 PM	1	Cation Exchange Capacity	-02
3	2303969-003B	T1-D (10'-11')	8OZGU	MeOH (Soil)	3/14/2023 3:20:00 PM	1	Cation Exchange Capacity	-03
4	2303969-004B	T1-D (15'-16')	8OZGU	MeOH (Soil)	3/14/2023 4:37:00 PM	1	Cation Exchange Capacity	-04
5	2303969-005B	T4-A (13'-14.5')	8OZGU	MeOH (Soil)	3/15/2023 10:45:00 AM	1	Cation Exchange Capacity	-05
6	2303969-006B	T3-D (7.5'-8.5')	8OZGU	MeOH (Soil)	3/15/2023 2:05:00 PM	1	Cation Exchange Capacity	-06
7	2303969-007B	T3-B2 (3.5'-4.5')	8OZGU	MeOH (Soil)	3/15/2023 2:32:00 PM	1	Cation Exchange Capacity	-07
8	2303969-008B	T5-A (8'-10')	8OZGU	MeOH (Soil)	3/15/2023 3:53:00 PM	1	Cation Exchange Capacity	-08
9	2303969-009B	T5-B (3'-4')	8OZGU	MeOH (Soil)	3/15/2023 4:10:00 PM	1	Cation Exchange Capacity	-09
10	2303969-010B	T5-B (13'-14')	8OZGU	MeOH (Soil)	3/15/2023 4:45:00 PM	1	Cation Exchange Capacity	-10
11	2303969-011B	PH-7 (4'-5')	8OZGU	Soil	3/16/2023 11:21:00 AM	1	Cation Exchange Capacity	-11
12	2303969-012B	T6-A (5'-6')	8OZGU	MeOH (Soil)	3/16/2023 12:05:00 PM	1	Cation Exchange Capacity	-12

Sample Receipt Checklist

COC Seal Present/Intact:	Y N	If Applicable	
COC Signed/Accurate:	Y N	VOA Zero Headspace:	Y N
Bottles arrive intact:	Y N	Pres.Correct/Check:	Y N
Correct bottles used:	Y N		
Sufficient volume sent:	Y N	6894 5470 0162	
RAD Screen <0.5 mR/hr:	Y N		

SPECIAL INSTRUCTIONS / COMMENTS:

Please include the LAB ID and the CLIENT SAMPLE ID on all final reports. Please e-mail results to lab@hallenvironmental.com. Pl

Relinquished By:	Date: 3/20/2023	Time: 11:02 AM	Received By:	Date: 3.21.23	Time: 0900
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

TAT: Standard ☑ RUSH Next BD ☐ 2nd BD ☐ 3rd BD ☐

REPORT TRANSMITTAL DESIRED:

☐ HARDCOPY (extra cost) ☐ FAX ☐ EMAIL ☐ ONLINE

FOR LAB USE ONLY

Temp of samples 3.1 °C Attempt to Cool ?

Comments:

Pace Analytical
1673 Terra Avenue Sheridan, WY 82801 ph: (307) 672-8945

Date: 4/7/2023

CLIENT: Pace National
Project: L1596677
Lab Order: S2303291

CASE NARRATIVE

Report ID: S2303291001

Entire Report Reviewed by: Crystal Herman

Crystal Herman, Mining Supervisor

Samples 2303969-001B T1-A (4-5.5), 2303969-002B T1-B (4-5), 2303969-003B T1-D (10-11), 2303969-004B T1-D (15-16), 2303969-005B T4-A (13-14.5), 2303969-006BT3-D (7.5-8.5), 2303969-007B T3-B2 (3.5-4.5), 2303969-008B T5-A (8-10), 2303969-009B T5-B (3-4), 2303969-010B T5-B (13-14), 2303969-011B PH-7 (4-5) and 2303969-012B T6-A (5-6) were received on March 22, 2023.

Samples were analyzed using the methods outlined in the following references:

U.S.E.P.A. 600/2-78-054 "Field and Laboratory Methods Applicable to Overburden and Mining Soils", 1978
American Society of Agronomy, Number 9, Part 2, 1982
USDA Handbook 60 "Diagnosis and Improvement of Saline and Alkali Soils", 1969
Wyoming Department of Environmental Quality, Land Quality Division, Guideline No. 1, 1984
New Mexico Overburden and Soils Inventory and Handling Guideline, March 1987
State of Utah, Division of Oil, Gas, and Mining: Guidelines for Management of Topsoil and Overburden for Underground and Surface Coal Mining, April 1988
Montana Department of State Lands, Reclamation Division: Soil, Overburden, and Regraded Spoil Guidelines, August 1998
State of Nevada Modified Sobek Procedure
Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

All Quality Control parameters met the acceptance criteria defined by EPA and Pace Analytical (Formerly Inter-Mountain Laboratories) except as indicated in this case narrative.

Pace Analytical
1673 Terra Avenue Sheridan, WY 82801 ph: (307) 672-8945

Date: 4/7/2023

Definitions

RL	Reporting Limit

Qualifiers

*	Value exceeds Maximum Contaminant Level
A	Check MSA specifications
B	Analyte detected in the associated Method Blank
C	Calculated Value
D	Report limit raised due to dilution
E	Value above quantitation range
G	Analyzed at Pace Gillette, WY laboratory
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
L	Analyzed by another laboratory
M	Value exceeds Monthly Ave or MCL or is less than LCL
ND	Not Detected at the Reporting Limit
O	Outside the Range of Dilutions
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
U	Analyte below method detection limit
X	Matrix Effect

Pace Analytical
1673 Terra Avenue Sheridan, WY 82801 ph: (307) 672-8945

Soil Analysis Report

Pace National
12065 Lebanon Road
Mt. Juliet, TN 37122

Report ID: S2303291001

Project: L1596677
Date Received: 3/22/2023

Date Reported: 4/7/2023
Work Order: S2303291

Lab ID	Sample ID	CEC meq/100g
S2303291-001	2303969-001B T1-A (4-5.5)	12
S2303291-002	2303969-002B T1-B (4-5)	14
S2303291-003	2303969-003B T1-D (10-11)	14
S2303291-004	2303969-004B T1-D (15-16)	6
S2303291-005	2303969-005B T4-A (13-14.5)	6
S2303291-006	2303969-006BT3-D (7.5-8.5)	8
S2303291-007	2303969-007B T3-B2 (3.5-4.5)	8
S2303291-008	2303969-008B T5-A (8-10)	10
S2303291-009	2303969-009B T5-B (3-4)	15
S2303291-010	2303969-010B T5-B (13-14)	24
S2303291-011	2303969-011B PH-7 (4-5)	11
S2303291-012	2303969-012B T6-A (5-6)	10

These results apply only to the samples tested.

Abbreviations for extractants: PE= Saturated Paste Extract, H20Sol= water soluble,AB-DTPA= Ammonium Bicarbonate-DTPA, AAO= Acid Ammonium Oxalate
Abbreviations used in acid base accounting: T.S.= Total Sulfur, AB= Acid Base, ABP= Acid Base Potential, PyrS= Pyritic Sulfur, Pyr+Org= Pyritic Sulfur + Organic Sulfur, Neutral. Pot.= Neutralization Potential
Miscellaneous Abbreviations: SAR= Sodium Adsorption Ratio, CEC= Cation Exchange Capacity, ESP= Exchangeable Sodium Percentage, TOC=Total Organic Carbon

Reviewed by: Crystal Herman
Crystal Herman, Mining Supervisor

Pace Analytical
1673 Terra Avenue Sheridan, WY 82801 ph: (307) 672-8945

ANALYTICAL QC SUMMARY REPORT

CLIENT: Pace National
Work Order: S2303291
Project: L1596677

Date: 4/7/2023
Report ID: S2303291001

Cation Exchange Capacity Sample Type **MBLK** Units: meq/100g

CEC BLK (04/06/23 17:07) RunNo: 209310

Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
Cation Exchange Capacity	ND	2					

CEC BLK (04/06/23 18:10) RunNo: 209310

Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
Cation Exchange Capacity	ND	2					

Cation Exchange Capacity Sample Type **LCS** Units: meq/100g

CEC QC (04/06/23 17:05) RunNo: 209310

Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
Cation Exchange Capacity	27	2	20.8		130	70 - 130	

CEC QC (04/06/23 18:08) RunNo: 209310

Analyte	Result	RL	Spike	Ref Samp	%REC	% Rec Limits	Qual
Cation Exchange Capacity	25	2	20.8		118	70 - 130	

Cation Exchange Capacity Sample Type **DUP** Units: meq/100g

S2303291-001AD (04/06/23 17:14) RunNo: 209310

Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
Cation Exchange Capacity	13	2	12	2.99		20	

S2303291-011AD (04/06/23 17:44) RunNo: 209310

Analyte	Result	RL	Ref Samp	%RPD	%REC	% RPD Limits	Qual
Cation Exchange Capacity	11	2	11	5.30		20	

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A — Required Client Information:

Company:	Pace Analytical
Address:	12065 Lebanon Rd.
	Mt. Juliet, TN 37122
Email:	MTJLSuboutTeam@pacelabs.com
Phone:	(615) 773-9756 Fax (615) 758-5859
Requested Due Date:	4-Apr

Section B — Required Project Information:

Report To:	Pace Analytical Subout Team
Copy To:	
Purchase Order #:	L1596677
Project Name:	
Project #:	

Section C — Invoice Information:

Attention:	Andy Freeman
Company Name:	
Address:	
Pace Quote:	
Pace Project Manager:	John Jacobs
Pace Profile #:	38076

Regulatory Agency

State / Location

WY 82801, WY 82801

Requested Analysis Filtered (Y/N)

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Analyses Test: Cation Exchange Capacity	Residual Chlorine (Y/N)
1	2303969-001B T1-A (4-5.5)	SL				14-Mar	11:44		1	1									X	
2	2303969-002B T1-B (4-5)	SL				14-Mar	13:22		1	1									X	
3	2303969-003B T1-D (10-11)	SL				14-Mar	15:20		1	1									X	
4	2303969-004B T1-D (15-16)	SL				14-Mar	16:37		1	1									X	
5	2303969-005B T4-A (13-14.5)	SL				15-Mar	10:45		1	1									X	
6	2303969-006BT3-D (7.5-8.5)	SL				15-Mar	14:05		1	1									X	
7	2303969-007B T3-B2 (3.5-4.5)	SL				15-Mar	14:32		1	1									X	
8	2303969-008B T5-A (8-10)	SL				15-Mar	15:53		1	1									X	
9	2303969-009B T5-B (3-4)	SL				15-Mar	16:10		1	1									X	
10	2303969-010B T5-B (13-14)	SL				15-Mar	16:45		1	1									X	
11	2303969-011B PH-7 (4-5)	SL				16-Mar	11:21		1	1									X	
12	2303969-012B T6-A (5-6)	SL				16-Mar	12:05		1	1									X	

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	James C Huckaba	21-Mar	14:43	PACE	3/21/23	1111		N	Y	Y
Pace Analytical Batch: WG2027283										
Pace Analytical SDGs: L1596677										
Location: Sheridan, WY 82801										

SAMPLER NAME AND SIGNATURE		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:					
SIGNATURE of SAMPLER:	DATE Signed:				

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2303969**

10-Apr-23

Client: Intera, Inc.

Project: Reed Estate 001

Sample ID: **MB-73801**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **73801**	RunNo: **95408**
Prep Date: **3/20/2023**	Analysis Date: **3/20/2023**	SeqNo: **3451612** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.30								
Chloride	ND	1.5								
Nitrogen, Nitrite (As N)	ND	0.30								
Bromide	ND	0.30								
Nitrogen, Nitrate (As N)	ND	0.30								
Sulfate	ND	1.5								

Sample ID: **LCS-73801**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **73801**	RunNo: **95408**
Prep Date: **3/20/2023**	Analysis Date: **3/20/2023**	SeqNo: **3451613** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.5	0.30	1.500	0	98.0	90	110			
Chloride	14	1.5	15.00	0	92.3	90	110			
Nitrogen, Nitrite (As N)	2.8	0.30	3.000	0	94.1	90	110			
Bromide	7.1	0.30	7.500	0	94.1	90	110			
Nitrogen, Nitrate (As N)	7.3	0.30	7.500	0	96.8	90	110			
Sulfate	28	1.5	30.00	0	94.3	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2303969**

10-Apr-23

Client: Intera, Inc.

Project: Reed Estate 001

Sample ID: **MB-73836**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **73836**	RunNo: **95454**
Prep Date: **3/21/2023**	Analysis Date: **3/22/2023**	SeqNo: **3453575** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.9		10.00		88.8	69	147			

Sample ID: **LCS-73836**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **73836**	RunNo: **95454**
Prep Date: **3/21/2023**	Analysis Date: **3/22/2023**	SeqNo: **3453577** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.8	61.9	130			
Surr: DNOP	4.7		5.000		93.6	69	147			

Sample ID: **MB-74022**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **74022**	RunNo: **95708**
Prep Date: **3/30/2023**	Analysis Date: **3/31/2023**	SeqNo: **3465046** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	12		10.00		118	69	147			

Sample ID: **LCS-74022**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **74022**	RunNo: **95708**
Prep Date: **3/30/2023**	Analysis Date: **3/31/2023**	SeqNo: **3465051** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	58	10	50.00	0	115	61.9	130			
Surr: DNOP	6.1		5.000		121	69	147			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2303969**

10-Apr-23

Client: Intera, Inc.

Project: Reed Estate 001

Sample ID: **lcs-73777**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **73777**	RunNo: **95394**
Prep Date: **3/17/2023**	Analysis Date: **3/20/2023**	SeqNo: **3451025** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	87.9	70	130			
Surr: BFB	1900		1000		189	37.7	212			

Sample ID: **mb-73777**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **73777**	RunNo: **95394**
Prep Date: **3/17/2023**	Analysis Date: **3/20/2023**	SeqNo: **3451026** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		103	37.7	212			

Sample ID: **2303969-008ams**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **T5-A (8'-10')**	Batch ID: **R95394**	RunNo: **95394**
Prep Date:	Analysis Date: **3/21/2023**	SeqNo: **3451309** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	3.8	18.92	0	96.8	70	130			
Surr: BFB	1500		757.0		196	37.7	212			

Sample ID: **2303969-008amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **T5-A (8'-10')**	Batch ID: **R95394**	RunNo: **95394**
Prep Date:	Analysis Date: **3/21/2023**	SeqNo: **3451310** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	3.8	18.92	0	97.4	70	130	0.700	20	
Surr: BFB	1500		757.0		198	37.7	212	0	0	

Sample ID: **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R95394**	RunNo: **95394**
Prep Date:	Analysis Date: **3/20/2023**	SeqNo: **3451335** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.5	70	130			
Surr: BFB	1900		1000		195	37.7	212			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **R95394**	RunNo: **95394**
Prep Date:	Analysis Date: **3/21/2023**	SeqNo: **3451336** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2303969**

10-Apr-23

Client: Intera, Inc.

Project: Reed Estate 001

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **R95394**	RunNo: **95394**
Prep Date:	Analysis Date: **3/21/2023**	SeqNo: **3451336** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	990		1000		98.8	37.7	212			

Sample ID: **lcs-73817**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **73817**	RunNo: **95411**
Prep Date: **3/20/2023**	Analysis Date: **3/21/2023**	SeqNo: **3451793** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.4	70	130			
Surr: BFB	2000		1000		196	37.7	212			

Sample ID: **mb-73817**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **73817**	RunNo: **95411**
Prep Date: **3/20/2023**	Analysis Date: **3/21/2023**	SeqNo: **3451794** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		101	37.7	212			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2303969**

10-Apr-23

Client: Intera, Inc.

Project: Reed Estate 001

Sample ID: **LCS-73777** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **73777** RunNo: **95394**

Prep Date: **3/17/2023** Analysis Date: **3/20/2023** SeqNo: **3451035** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	1.000	0	89.9	80	120			
Toluene	0.90	0.050	1.000	0	90.5	80	120			
Ethylbenzene	0.90	0.050	1.000	0	89.8	80	120			
Xylenes, Total	2.7	0.10	3.000	0	89.7	80	120			
Surr: 4-Bromofluorobenzene	0.97		1.000		96.9	70	130			

Sample ID: **mb-73777** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **73777** RunNo: **95394**

Prep Date: **3/17/2023** Analysis Date: **3/20/2023** SeqNo: **3451036** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.93		1.000		93.0	70	130			

Sample ID: **2303969-009ams** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **T5-B (3'-4')** Batch ID: **R95394** RunNo: **95394**

Prep Date: Analysis Date: **3/21/2023** SeqNo: **3451330** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	3.1	0.32	3.232	0	94.6	61.5	113			
Benzene	3.1	0.081	3.232	0	97.1	68.8	120			
Toluene	3.1	0.16	3.232	0.1332	92.6	73.6	124			
Ethylbenzene	3.1	0.16	3.232	0.07821	94.5	72.7	129			
Xylenes, Total	9.6	0.32	9.696	0.4053	94.6	75.7	126			
Surr: 4-Bromofluorobenzene	3.1		3.232		94.9	70	130			

Sample ID: **2303969-009amsd** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **T5-B (3'-4')** Batch ID: **R95394** RunNo: **95394**

Prep Date: Analysis Date: **3/21/2023** SeqNo: **3451331** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	3.2	0.32	3.232	0	98.1	61.5	113	3.65	20	
Benzene	3.2	0.081	3.232	0	98.5	68.8	120	1.46	20	
Toluene	3.2	0.16	3.232	0.1332	95.9	73.6	124	3.31	20	
Ethylbenzene	3.2	0.16	3.232	0.07821	96.5	72.7	129	2.03	20	
Xylenes, Total	9.8	0.32	9.696	0.4053	97.1	75.7	126	2.50	20	
Surr: 4-Bromofluorobenzene	3.1		3.232		96.1	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2303969**

10-Apr-23

Client: Intera, Inc.

Project: Reed Estate 001

Sample ID: **100ng btex lcs**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **R95394**	RunNo: **95394**
Prep Date:	Analysis Date: **3/21/2023**	SeqNo: **3451556** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.92	0.10	1.000	0	92.2	80	120			
Benzene	0.92	0.025	1.000	0	92.5	80	120			
Toluene	0.92	0.050	1.000	0	91.8	80	120			
Ethylbenzene	0.92	0.050	1.000	0	91.6	80	120			
Xylenes, Total	2.7	0.10	3.000	0	91.6	80	120			
Surr: 4-Bromofluorobenzene	0.90		1.000		90.4	70	130			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **R95394**	RunNo: **95394**
Prep Date:	Analysis Date: **3/21/2023**	SeqNo: **3451572** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.10								
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.89		1.000		89.4	70	130			

Sample ID: **LCS-73817**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **73817**	RunNo: **95411**
Prep Date: **3/20/2023**	Analysis Date: **3/21/2023**	SeqNo: **3451796** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	1.000	0	89.6	80	120			
Toluene	0.90	0.050	1.000	0	90.2	80	120			
Ethylbenzene	0.90	0.050	1.000	0	90.3	80	120			
Xylenes, Total	2.7	0.10	3.000	0	89.8	80	120			
Surr: 4-Bromofluorobenzene	0.94		1.000		93.8	70	130			

Sample ID: **mb-73817**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **73817**	RunNo: **95411**
Prep Date: **3/20/2023**	Analysis Date: **3/21/2023**	SeqNo: **3451797** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.92		1.000		92.5	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2303969**

10-Apr-23

Client: Intera, Inc.

Project: Reed Estate 001

Sample ID: **MB-73858**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS**	Batch ID: **73858**	RunNo: **95581**
Prep Date: **3/22/2023**	Analysis Date: **3/27/2023**	SeqNo: **3459073** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	50								
Potassium	ND	50								
Sodium	ND	50								

Sample ID: **LCS-73858**	SampType: **LCS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS**	Batch ID: **73858**	RunNo: **95581**
Prep Date: **3/22/2023**	Analysis Date: **3/27/2023**	SeqNo: **3459075** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	2100	50	2500	0	85.0	80	120			
Potassium	2100	50	2500	0	82.7	80	120			
Sodium	2200	50	2500	0	86.4	80	120			

Sample ID: **2303969-012AMS**	SampType: **MS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **T6-A (5'-6')**	Batch ID: **73858**	RunNo: **95581**
Prep Date: **3/22/2023**	Analysis Date: **3/27/2023**	SeqNo: **3459244** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	8900	100	2494	6475	97.8	75	125			
Potassium	3700	100	2494	1314	94.3	75	125			
Sodium	3500	100	2494	1089	94.8	75	125			

Sample ID: **2303969-012AMSD**	SampType: **MSD**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **T6-A (5'-6')**	Batch ID: **73858**	RunNo: **95581**
Prep Date: **3/22/2023**	Analysis Date: **3/27/2023**	SeqNo: **3459248** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	8400	100	2492	6475	78.9	75	125	5.45	20	
Potassium	3700	100	2492	1314	96.2	75	125	1.25	20	
Sodium	3500	100	2492	1089	95.0	75	125	0.0937	20	

Sample ID: **MB-73943**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS**	Batch ID: **73943**	RunNo: **95699**
Prep Date: **3/27/2023**	Analysis Date: **3/30/2023**	SeqNo: **3463454** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	50								
Magnesium	ND	50								
Potassium	ND	50								
Sodium	ND	50								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2303969**

10-Apr-23

Client: Intera, Inc.

Project: Reed Estate 001

Sample ID: **LCSLL-73943**	SampType: **LCSLL**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **BatchQC**	Batch ID: **73943**	RunNo: **95699**
Prep Date: **3/27/2023**	Analysis Date: **3/30/2023**	SeqNo: **3463455** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	50	25.00	0	113	50	150			
Magnesium	ND	50	25.00	0	95.3	50	150			
Potassium	ND	50	25.00	0	96.7	50	150			
Sodium	ND	50	25.00	0	111	50	150			

Sample ID: **LCS-73943**	SampType: **LCS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS**	Batch ID: **73943**	RunNo: **95699**
Prep Date: **3/27/2023**	Analysis Date: **3/30/2023**	SeqNo: **3463456** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	2300	50	2500	0	93.7	80	120			
Magnesium	2300	50	2500	0	92.7	80	120			
Potassium	2400	50	2500	0	94.2	80	120			
Sodium	2500	50	2500	0	99.1	80	120			

Sample ID: **MB-73858**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS**	Batch ID: **73858**	RunNo: **95804**
Prep Date: **3/22/2023**	Analysis Date: **4/5/2023**	SeqNo: **3467917** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	ND	50								

Sample ID: **LCSLL-73858**	SampType: **LCSLL**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **BatchQC**	Batch ID: **73858**	RunNo: **95804**
Prep Date: **3/22/2023**	Analysis Date: **4/5/2023**	SeqNo: **3467918** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	ND	50	25.00	0	91.3	50	150			

Sample ID: **LCS-73858**	SampType: **LCS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS**	Batch ID: **73858**	RunNo: **95804**
Prep Date: **3/22/2023**	Analysis Date: **4/5/2023**	SeqNo: **3467919** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	2400	50	2500	0	95.1	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2303969**

10-Apr-23

Client: Intera, Inc.

Project: Reed Estate 001

Sample ID:	**2303969-011ADUP**	SampType:	**DUP**		TestCode:	**SM4500H+B/EPA 9040C**					
Client ID:	**PH-7 (4'-5')**	Batch ID:	**R95633**		RunNo:	**95633**					
Prep Date:		Analysis Date:	**3/28/2023**		SeqNo:	**3460820**	Units:	**pH Units**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH		8.34									

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Intera, Inc. Work Order Number: 2303969 RcptNo: 1

Received By: Juan Rojas 3/17/2023 4:53:00 PM

Completed By: Cheyenne Cason 3/17/2023 4:58:04 PM

Reviewed By: JRL 3/20/23

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? Client

Log In

3. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☑ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
8. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes ☐ No ☐ NA ☑
10. Were any sample containers received broken? Yes ☐ No ☑
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
13. Is it clear what analyses were requested? Yes ☑ No ☐
14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: JRL 3/20/23

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Not Present	Morty		
2	3.6	Good	Not Present	Morty		

Chain-of-Custody Record

Client: INTERA

Mailing Address: 2440 Louisiana Blvd NE, Suite 700, ABQ, NM 87110

Phone #: 575-621-0885

email or Fax#: ewoolsey@intera.com

QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☑ EDD (Type) Excel

Turn-Around Time:
☐ Standard ☑ Rush Next Day (Cl only)

Project Name: Reed Estate #001

Project #: NMGSD.Moos.OLD-Reed001

Project Manager: Emily Woolsey

Sampler: Pedro Gutierrez

On Ice: ~~☑~~ Yes ☐ No

# of Coolers: 3 Marty

Cooler Temp(including CF): See Remark (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2303969	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO/DRO/MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	CEC	PH M4500 - H+B	Cations/Metal SW6010B			
03/14/23	1144	Soil	T1-A (4'-5.5')	~~4oz~~ 1 Jars	~~MeOH~~ None	001	X	X					X				X	X	X			
03/14/23	1322	Soil	T1-B (4'-5')	2 vials 2 jars	MeOH N/A	002	X	X					X				X	X	X			
03/14/23	1520	Soil	T1-D (10'-11')	2 vials 2 jars	MeOH N/A	003	X	X					X				X	X	X			
03/14/23	1637	Soil	T1-D (15'-16')	2 vials 2 jars	MeOH N/A	004	X	X					X				X	X	X			
03/15/23	1045	Soil	T4-A (13'-14.5')	2 vials 2 jars	MeOH N/A	005	X	X					X				X	X	X			
03/15/23	1405	Soil	T3-D (7.5'-8.5')	2 vials 2 jars	MeOH N/A	006	X	X					X				X	X	X			
03/15/23	1432	Soil	T3-B2 (3.5'-4.5')	2 jars 2 vials	N/A MeOH	007	X	X					X				X	X	X			
03/15/23	1553	Soil	T5-A (8'-10')	2 vials 2 jars	MeOH N/A	008	X	X					X				X	X	X			
03/15/23	1610	Soil	T5-B (3'-4')	2 vials 2 jars	MeOH N/A	009	X	X					X				X	X	X			
03/15/23	1645	Soil	T5-B (13'-14')	2 vials 2 jars	MeOH N/A	010	X	X					X				X	X	X			
03/16/23	1121	Soil	PH-7 (4'-5')	2 jars	N/A	011							X				X	X	X			
03/16/23	~~1205~~ 1637	~~Soil~~ Soil	~~PG-A (5'-6')~~ PG-A (5'-6')	2 vials 2 jars	MeOH 2 Jars	012	X	X					X				X	X	X			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
03/17/23	16:53	Pedro G. Gutierrez		CDO	3/17/23	16:53
Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time

Remarks: Priority on Cl
Quote: 2711
MeOH Blank -013
0.8+0.2=1.0
3.4+0.2=3.6

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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4901 Hawkins NE
Albuquerque, NM 87109
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Website: www.hallenvironmental.com

May 03, 2023

Emily Woolsey

Intera, Inc.
2440 Louisana Blvd NE Suite 700
Albuquerque, NM 87110
TEL: (505) 246-1600
FAX: (505) 246-2600

RE: OCD Reed Estate 001 OrderNo.: 2304C14

Dear Emily Woolsey:

Hall Environmental Analysis Laboratory received 3 sample(s) on 4/27/2023 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2304C14**
Date Reported: **5/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc.
Client Sample ID: PH-8 (4'-5')
Project: OCD Reed Estate 001
Collection Date: 3/16/2023 2:00:00 PM
Lab ID: 2304C14-001 **Matrix:** SOIL **Received Date:** 4/27/2023 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **SNS**	
Chloride	250	60	H	mg/Kg	20	5/1/2023 8:08:33 PM	74674

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2304C14**
Date Reported: **5/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** PH-2 (4'-5.5')
Project: OCD Reed Estate 001 **Collection Date:** 3/16/2023 2:30:00 PM
Lab ID: 2304C14-002 **Matrix:** SOIL **Received Date:** 4/27/2023 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **SNS**	
Chloride	ND	60	H	mg/Kg	20	5/1/2023 8:20:53 PM	74674

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2304C14**
Date Reported: **5/3/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc.
Client Sample ID: PH-11 (4.5'-5')
Project: OCD Reed Estate 001
Collection Date: 3/16/2023 10:48:00 AM
Lab ID: 2304C14-003 **Matrix:** SOIL **Received Date:** 4/27/2023 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **SNS**	
Chloride	570	60	H	mg/Kg	20	5/1/2023 8:33:13 PM	74674

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2304C14**

03-May-23

Client: Intera, Inc.

Project: OCD Reed Estate 001

Sample ID: **MB-74674**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **74674**	RunNo: **96419**							
Prep Date: **5/1/2023**	Analysis Date: **5/1/2023**	SeqNo: **3494434**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-74674**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **74674**	RunNo: **96419**							
Prep Date: **5/1/2023**	Analysis Date: **5/1/2023**	SeqNo: **3494435**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	16	1.5	15.00	0	109	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Intera, Inc. Work Order Number: 2304C14 RcptNo: 1

Received By: Joseph Alderette 4/27/2023 4:00:00 PM

Completed By: Desiree Dominguez 4/27/2023 4:28:08 PM

Reviewed By: 4-28-23

Chain of Custody

1. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Client		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: JN 4/28/23

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.1	Good	Not Present	Morty		

Chain-of-Custody Record

Client: Emily Woolsey / INTERA

Mailing Address: 2440 Louisiana Blvd NE Suite 700, ABQ

Phone #: 575-621-0885

email or Fax#: ewoolsey@interacorp.com

QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other

☑ EDD (Type) Excel

Turn-Around Time:
☐ Standard ☑ Rush ASAP

Project Name: OCD-Reed Estate #001

Project #: NMGSD.M005.OCD-Reed001

Project Manager: Emily Woolsey

Sampler: Pedro Gutierrez

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 5.1 - 0 = 5.1 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2304C14	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
3.16.23	1400	Soil	PH-8(4'-5')	2 jars	None	-001							X			
3.16.23	1430	Soil	PH-2(4'-5.5')	2 jars	None	-002							X			
3.16.23	1048	Soil	PH-11(4.5'-5')	2 jars	None	-003							X			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
04/27/23	1600	Pedro Gutierrez		CDO	4.27.23	16:00
Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time

Remarks: Please dispose vials if not needed for chlorides. Only analyze for Chlorides. Expedite analysis please

Appendix D

Drone Orthoimagery Mosaic, DEM, and Data Processing Summary Report

Lovington - Reed Estate #001

Captured: Jan 27, 2023, Processed: Jan 29, 2023

Map Details Summary

Project Name	Lovington - Reed Estate #001
Photogrammetry Engine	DroneDeploy Proprietary
Date Of Capture	Jan 27, 2023
Date Processed	Jan 29, 2023
GSD Orthomosaic (GSD DEM)	0.78in/px (**DEM** 3.10in/px)
Area Bounds (Coverage)	953243.48ft^2 (99%)
Image Sensors	Autel Robotics - XT706
Average GPS Trust	32.81ft

Quality & Accuracy Summary

Image Quality	High texture images
Median Shutter Speed	1/640
Images Uploaded (Aligned %)	260 (100%)
Camera Optimization	0.03% variation from reference intrinsics

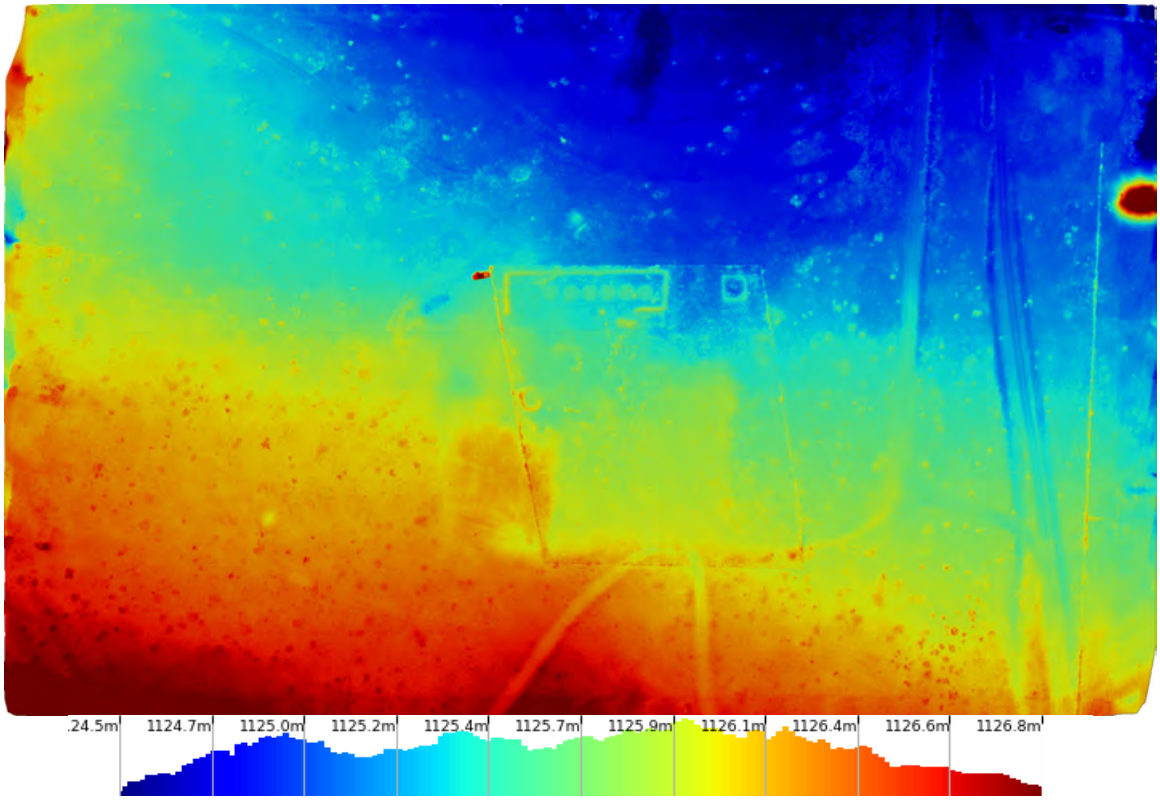
Lovington | Map from January 27, 2023

Powered by DroneDeploy

15m 30m
50ft 100ft

Digital Elevation Model ⓘ

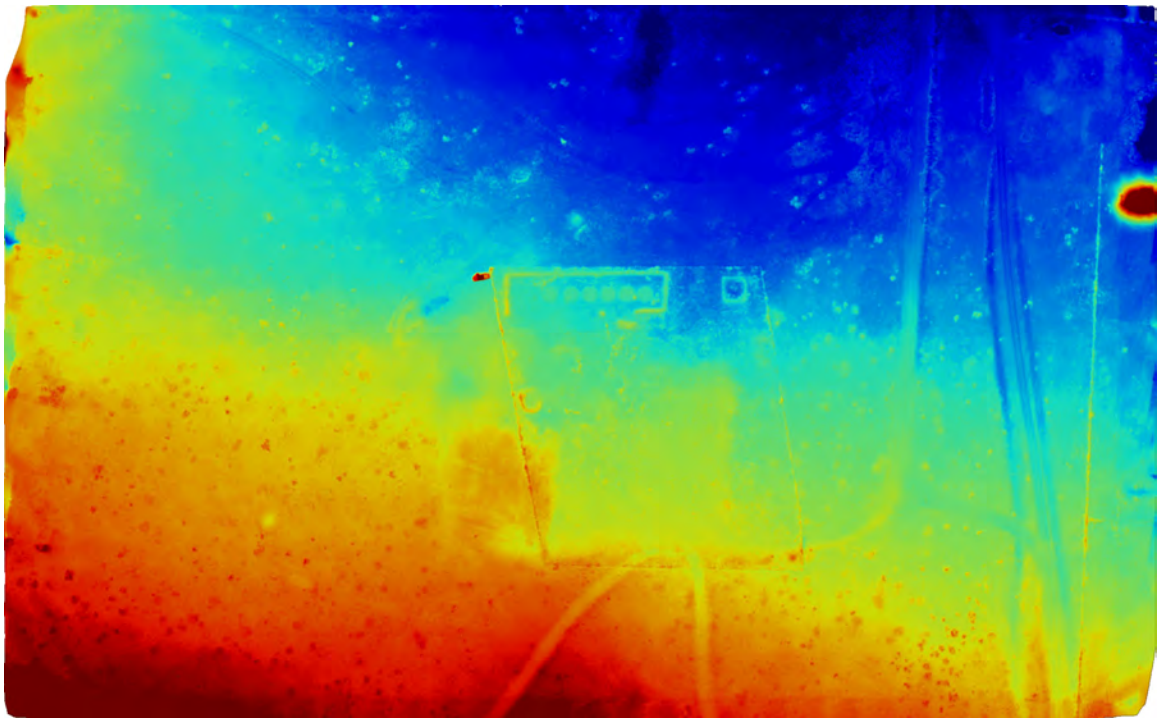
Mode	Generated from Mesh
DEM GSD	**DEM** 3.10in/px
Relative/Absolute	Absolute Altitude



DroneDeploy

This map and report was produced with proprietary cloud photogrammetry software from DroneDeploy. Provide feedback to improve this report

Preview ⓘ



District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 258096

CONDITIONS

Operator: HAL J RASMUSSEN OPER INC PO Box 10851 Midland, TX 79702	OGRID: 9809
	Action Number: 258096
	Action Type: [IM-SD] Incident File Support Doc (ENV) (IM-BNF)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	8/28/2023