Remediation and Reclamation Work Plan

Reed Estate #001 Orphan Wellsite

Lea County, New Mexico

Prepared for:

NEW MEXICO emnrd
Energy, Minerals and Natural Resources Department

State of New Mexico Energy, Minerals
& Natural Resources Department
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

Prepared by:

INTERA

INTERA Incorporated
2440 Louisiana Boulevard, Suite 700
Albuquerque, New Mexico 87110

AUGUST 2023

Table of Contents

List of Figures

List of Tables

List of Appendices

Acronyms and Abbreviations

°F	degrees Fahrenheit
API	American Petroleum Institute
bgs	below ground surface
BTEX	Benzene, Toluene, Ethylbenzene and Xylene
CY	cubic yard
DI	deionized
DRO	diesel range organics
EMNRD	New Mexico Energy, Minerals and Natural Resources Department
EPA	United States Environmental Protection Agency
eV	electron volt
ft	foot/feet
GPS	Global Positioning System
GRO	gasoline range organics
H_2O_2	hydrogen peroxide
H_2S	hydrogen sulfide
HEAL	Hall Environmental Analysis Laboratory
INTERA	INTERA Incorporated
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
mL	milliliter/milliliters
MRO	motor oil range organics
NMAC	New Mexico Administrative Code
NMGSD	State of New Mexico General Services Department
NORM	Naturally Occurring Radioactive Materials
NPDES	National Pollutant Discharge Elimination System
OCD	New Mexico Energy, Minerals and Natural Resources Department – Oil Conservation Division
OSHA	Occupational Safety and Health Administration
PLS	Pure Live Seed
PID	photoionization detector
PPE	Personal Protective Equipment
ppm	parts per million
QA/QC	quality assurance and quality control
RO	reverse osmosis
Site	Reed Estate #001 Wellsite (API 30-025-07258), Lea County, New Mexico
sq ft	square feet
SOP	Standard Operating Procedure
SOW	Scope of Work
SSHASP	Site Specific Health and Safety Plan
TPH	Total Petroleum Hydrocarbon
USDA NRCS	United States Department of Agriculture Natural Resources Conservation Service
USCS	Unified Soil Classification System
VOC	Volatile Organic Compound

1 Introduction

INTERA Incorporated (INTERA) has prepared this Work Plan for the New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD) for salvage, remediation, reclamation, and restoration services at the Reed Estate #001 orphaned wellsite located northeast of Lovington, New Mexico, in Lea County (Site). This Work Plan was developed under the State of New Mexico General Services Department (NMGSD) Contract No. 521000-0000073157 issued December 13, 2022, and Pricing Agreement No. 10-52100-21-06041, valid through June 22, 2023. The proposed work will be conducted under Contract No. 52100-0000074982 issued by NMGSD on July 28, 2023, through Price Agreement No. 30-00000-22-00001, valid through February 26, 2024.

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.

Results of a Site Assessment conducted in Spring 2023 indicate that the orphaned Reed Estate #001 Site is contaminated over an approximately 29,037 square feet (sq ft) area by a combination of historical releases of petroleum products from the former tank battery and oil and gas well (INTERA, 2023). A conservative subsurface volume estimate of up to 10,900 cubic yards (CY) of hydrocarbon-impacted soil needs remediation. In addition, elevated chloride concentrations above the closure criteria limit were detected on the periphery of the delineated hydrocarbon-impacted area in two isolated locations that also require remediation.

Unlimited Construction II, of Carlsbad, New Mexico, will be the environmental services contractor to OCD to perform the excavation and remediation of impacted soils, salvage of remaining infrastructure, surface reclamation, and restoration activities at the Site. INTERA personnel will be on-site to oversee the soil excavation and remediation process, collect confirmation soil samples, and guide the extent of excavation based on field screening observations and laboratory results. INTERA will also conduct the subsequent Site closure reporting. If changes to the activities or approach described herein are warranted based on preliminary field results, the proposed changes will be discussed with the OCD prior to implementation.

This Work Plan was developed based on the field and laboratory analyses presented in the Site Assessment and Characterization Report (INTERA, 2023) and the horizontal and vertical delineation of impacted material determined from those analyses. The following subsections provide a brief project background and a summary of Site conditions. Section 2.0 discusses the remediation strategy for the estimated volume of impacted material. Section 3.0 presents the proposed Scope of Work (SOW), including the sampling plan and methodology, and subsequent closure reporting. Section 4.0 provides a weekly schedule for conducting the work proposed herein.

1.1 Remediation Plan Requirements

In accordance with Subsection C, Paragraph 1 of 19.15.29.12 NMAC and Remediation Plan Form C-141, the proposed remediation plan must include the following:

- **(a)** delineation results, including laboratory analysis;
- **(b)** scaled sitemap showing release area with horizontal and vertical delineation points;
- **(c)** estimated volume of impacted material to be remediated;
- **(d)** proposed remediation technique; and
- **(e)** proposed timeline for remediation activities.

The remediation plan must also be developed and completed pursuant to Subsection C, Paragraphs (2), (3) and (4) of 19.15.29.12 NMAC. Remediation must meet the closure criteria for a release contained in Table I of 19.15.29.12 NMAC. Form C-141 will be submitted prior to initiating remediation.

1.2 Site Location and Conditions

The Reed Estate #001 Site, 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**) with the monument location at latitude 33.00091 and longitude -103.08244. The Site was formerly operated by Hal J Rasmussen Operating, Inc., and is now considered an orphaned wellsite under the responsibility of the OCD. The former oil and gas well was plugged and abandoned by the OCD on March 7, 2015, and marked with an abandoned well monument. 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**). 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.

The Site is relatively flat, sloping down gently to the north towards the playa lake located within 100 ft of the northern wellsite fence boundary. The well pad is a partially vegetated caliche pad with an area of approximately 93,370 sq ft. 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. Soils in the vicinity of the former tank battery and well are stained dark brown and emit a strong hydrocarbon odor. Electrical equipment debris associated with the former tank battery remain on-site, as well as polyline segments, well components, and various debris piles of metal, rubber, plastic, wood, and general trash. 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.

1.3 Contamination Delineation Summary

INTERA conducted a subsurface trenching investigation in March of 2023 to delineate the horizontal and vertical extent of contamination resulting from the combined historical releases from the former tank battery and leaking well. **Figures 3, 4, 5a, 5b, 5c, 6a,** and **6b** show the results and data interpretations of this field investigation.

The surface area expression of the minimum and maximum extents of contamination are illustrated in **Figure 3**. The minimum hydrocarbon areal extent (red dashed line) was estimated at approximately 14,381 sq ft, based 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 (**Figures 5a, 5b, and 5c**) 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.

The chloride boundary (green dashed line) is only partially delineated in **Figure 3** based on limited data. All lab-derived chloride results, including the three locations that exceed the regulatory limit of 600 milligrams per kilogram (mg/kg) (T-1A, T-1B, and T-6A), are identified on the Site map as **Figure 4**. 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 total petroleum hydrocarbon (TPH) or benzene, toluene, ethylbenzene, and total xylenes (BTEX) exceedance.

Three cross-section lines, A-A', B-B', and C-C', were drawn to transect the investigation areas where samples were collected. Analytical results for the soil samples collected during the Spring 2023 investigation are included as **Appendix A** and displayed on the cross-section profiles in **Figures 5a, 5b,** and **5c**. Summary tables and data interpretations are provided in the Site Assessment and Characterization Report (INTERA, 2023).

The estimated maximum and minimum hydrocarbon contamination boundaries identified in the cross-sections were utilized to estimate the volume of hydrocarbon-contaminated material ranging from approximately 2,400 CY for the minimum hydrocarbon contamination boundary (**Figure 6a**) to 10,900 CY for the maximum hydrocarbon boundary (**Figure 6b**). The average depth is 4 to 6 ft below ground surface (bgs), with contamination extending as deep as 14 ft bgs near the now plugged oil and gas well for the minimum hydrocarbon boundary. 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 depth interval.

1.4 Groundwater and Surface Water

Active wells within a 5-mile radius of the Reed Estate #001 well exhibit a wide range of water levels between 40 to ~400 ft bgs (NMOSE, 2023). Based on regional data and trends, the depth to water is likely between 50 to 100 ft bgs at the Site (INTERA, 2023). Surface water is intermittently present within a playa lake located north of the Site within 100 ft of the northern extent of the release. The most significant surface watercourse in the region is the Pecos River located over 70 miles west of the Site.

1.5 Regulatory Standards & Closure Requirements

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***	EPA Method 300.0	600 mg/kg
TPH (GRO+DRO+MRO)	EPA Method 8015M/D	100 mg/kg
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.
EPA = Environmental Protection Agency, United States.
DRO = diesel-rage organics
GRO = gasoline-range organics
MRO = motor oil-range organics

As required by Subsection D, Paragraph 1(a), INTERA will notify OCD 2 business days prior to conducting final sampling. If all composite and grab sample contaminant concentrations are less than or equal to their respective parameters in Table I, then any excavated areas may be backfilled (Subsection D, Paragraph 2 of 19.15.29.12 NMAC). A 1-ft soil cover and a minimum of 4 ft of uncontaminated, non-waste containing earthen material with chloride concentrations less than 600 mg/kg will be placed during reclamation (Subsection D, Paragraph 1 of 19.15.29.13 NMAC); this material will be sourced from a borrow area meeting these standards.

Upon completion of remediation activities, INTERA will submit to OCD a closure report, along with form C-141 and all required attachments. The final closure report must include the following (Subsection E, Paragraph 1 of 19.15.29.12 NMAC):

(a) a scaled site and sampling diagram;

(b) photographs of the remediated site prior to backfill;

(c) laboratory analyses of final sampling; and

(d) a description of all remedial activities.

Subsection E of 19.15.29.12 NMAC requires that the closure report and form C-141 be submitted to OCD within 90 days of the remediation plan approval; however, an application for additional time to submit the final closure report may be submitted. The schedule for remediation activities and closure report submission is discussed in Section 4.

2 Recommended Soil Remediation Strategy

INTERA (2023) and Unlimited Construction II have evaluated soil remediation options for the Site based on the investigation findings and recommend a combination of soil shredding and dig and haul methods to accomplish remediation goals of the two major types of contamination encountered. Soil shredding is recommended to treat the hydrocarbon-impacted soils in conjunction with dig and haul for chloride-impacted soils. Dig and haul may also be preferred for large, well-cemented caliche blocks that are not suitable for the mechanical particle-size reduction technique involved in soil shredding.

Soil shredding is an ex-situ remediation process that will be conducted on-site. Contaminated soils are first mechanically broken down into smaller particle sizes to increase surface area and encourage contaminant volatilization. A treatment solution containing hydrogen peroxide (H_2O_2) is then applied. The H_2O_2 reacts with the contaminated soil through an oxidative process that removes organic contamination from the impacted soil by breaking down organic contaminants into non-toxic compounds, primarily water and carbon dioxide (Watts and Stanton, 1994). Fenton treatment processes are common in soil remediation (e.g., Watts, 1992; Watts et al., 1994; Beal et al., 2020) and involve H_2O_2 decomposition that is catalyzed by the iron mineral content of the soils or soil amendments, resulting in the degradation of pollutants. The chemistry of the process, known as Fenton's Reagent, is well documented (Fenton, 1894; Kolthoff and Medalia, 1949; Walling, 1975).

Chemical amendments are blended on-site and are comprised of environmentally friendly oxidants and soil conditioners. The specific chemical treatment intended to treat the hydrocarbon-contaminated soils at Reed Estate #001 was designed by Unlimited Construction II based on soil analytical data and will consist of a 30-45% by volume solution of H_2O_2. The percentage range will be adjusted within the first few rounds of treatment results to dial in the most efficient solution. An ISO holding tank of 50% H_2O_2 solution will remain on-site on a double-walled trailer and be diluted with water during the treatment process. A berm will be constructed around the trailer containing the H_2O_2 tank.

Contaminated soil will be excavated and temporarily stockpiled on-site before being loaded into a soil processing unit, which pulverizes and screens the material to a diameter of <0.5 inches. A chemical treatment will be applied with a sprayer as the soil passes along a conveyor belt. The treated material will then be stacked into process piles and given 24 hours for reaction time prior to sampling and lab testing. The treated material can be used as backfill in the excavation once contamination has been reduced below the regulatory threshold. The initial process pile size will be 100 CY of material each. Once a consecutive total of 1,000 CY of treated soil is sampled with no fails, then process pile size will be increased to 500 CY each, if approved by OCD.

The soil shredding method is not suitable for soil chloride treatment, and therefore chloride-contaminated soil will be excavated and sent to an OCD-approved landfarm or landfill (i.e., R360 CRI) for remediation. Areas excavated and hauled away will need to 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. The borrow area will be sampled, field screened, and lab confirmed as suitable material before being approved as fill for the excavation.

Soil remediation options will be followed by compaction of the backfilled excavations, topsoil placement, and contouring of the Site as described in the following section. All actions pertaining to remediation and restoration of the Site would follow NMAC 19.15.29.

3 Scope of Work

This SOW includes soil remediation, extensive confirmation sampling and analysis, surface reclamation, field operations oversight, and a final Site closure report deliverable. INTERA has divided the project SOW into the following tasks:

- Task 1 – Project Management and Planning
- Task 2 – Soil Remediation and Sampling Plan
- Task 3 – Surface Reclamation Activities
- Task 4 – Closure Reporting

3.1 Task 1 - Project Management and Planning

Prior to starting field work, several activities need to be completed to ensure that the data needed to meet remediation and reclamation objectives will be collected safely and of appropriate quality to support Site closure. The objectives and related activities of Task 1 are as follows:

- Schedule field activities with OCD and Unlimited Construction II.
- Review and update the Site-Specific Health and Safety Plan (SSHASP).
- Place ongoing sample kit order with Hall Environmental Analysis Laboratory (HEAL).
- Collect sample from the Angell Ranch well located within ¼ mile from the Site to ensure that the locally sourced water is a viable option for remediation use.
- Refine field forms for consistent data collection management.
- Review the waste disposal route map (**Figure 7**) indicating the truck haul route and location of the OCD-approved landfill and
- Rent safety signage (i.e., “Trucks Turning” signs) to be set on the highway near the county road providing access to the Site.
- Re-validate New Mexico One Call underground utility clearance ticket to cover the excavation fieldwork window prior to performing any ground-disturbing activities.
- Print Davis Bacon Act posters to display on-site.
- Arrange office support for field activities including review of incoming laboratory analysis reports for ongoing confirmation sampling to relay pass/fail info to field crew.
- Schedule coordination, status meetings, client briefings, and invoicing.

3.1.1 Site-Specific Health and Safety Plan

Prior to conducting any remediation field work, the SSHASP will be reviewed by all on-site personnel to comply with INTERA safety requirements. The SSHASP is a dynamic document that is subject to change during the performance of the SOW 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. Implementation of INTERA's corporate and site-specific health and safety programs will include a daily tailgate safety meeting and activity-specific job risk assessments to ensure that work is completed safely.

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 will be required during all Site activities.

Unlimited Construction II will utilize a H_2O_2 solution during remediation activities for soil treatment. A chemical resistant Tyvec suit will be worn by Unlimited Construction II personnel while working in close proximity to the H_2O_2 solution including refilling tanks, attaching hoses, etc. INTERA will have extra Tyvec suits on hand but does not plan to assist with chemical treatment activities.

3.1.2 Water Source Evaluation

The landowner has offered to provide water for remediation efforts at a cost of $1 per barrel from a private well within ¼ mile of the Site. INTERA will conduct sampling of the private well prior to beginning remediation activities to ensure the potential water source meets groundwater and irrigation quality standards. Previous attempts to sample the well were delayed due to pump issues and a power outage. If the private well has elevated chlorides or otherwise does not meet quality standards, water will be hauled in from the Lovington area for remediation activities.

3.1.3 Waste Disposal Route

Figure 7 displays the route provided by R360 for hauling contaminated soil from the Site to the OCD-approved R360 landfill facility. The figure also indicates locations for placement of "Trucks Turning" signage along Highway 769 that will be installed for the duration of hauling events.

3.1.4 Stormwater Management

The National Pollutant Discharge Elimination System (NPDES) Stormwater Program, established under Section 402 of the Federal Clean Water Act, plays a role in safeguarding surface water quality in the State of New Mexico by regulating point-source discharges of pollutants into surface watercourses. According to Section 402(l) (2) of the Clean Water Act, oil and gas sites are exempt from the requirement to submit a 402 permit for stormwater runoff. This exemption applies to both construction and industrial activities associated with oil and gas exploration, production, processing or treatment operations, or transmission facilities.

Despite this exemption, best management practices will be implemented at the Site to minimize impacts on stormwater runoff, including the construction of berms around the excavation area and a berm on the north side of the Site to prevent stormwater runoff from reaching the adjacent playa lake. Precipitation accumulation in the excavated area will be removed with a vacuum truck and transported to an approved facility for proper disposal.

3.1.5 Utility Locate

INTERA will contact New Mexico One Call System, Inc., for utility locate services prior to the remediation field work to re-validate the utility clearance ticket before performing any ground-disturbing activities. New Mexico One Call previously determined that buried utilities maintained by New Mexico One Call subscribers are not located within the Site boundaries.

3.1.6 Field Equipment

Field equipment will include light-duty pickup trucks, first aid kit, H_2S monitors, Personal Protective Equipment (PPE), decontamination supplies, tablet and Global Positioning System (GPS) unit (or smartphone with same capabilities), digital camera, photoionization detector (PID), YSI multi-meter, colorimeter, hand auger, hand trowel, mixing bowl, deionized (DI) water, toolbox, measuring tape, flagging material, survey lathe, sample jars, sample coolers, ice, log book, field forms, sample chain-of-custody forms, and a satellite communication device for use in remote areas (if necessary). Heavy equipment to be operated by Unlimited Construction II includes an excavator/trackhoe, water truck, haul truck, dump truck, loader, tractor, and support vehicles.

3.2 Soil Remediation and Sampling Plan

Unlimited Construction II will excavate and treat up to an estimated 10,900 CY of hydrocarbon contaminated soil at Reed Estate #001. Contaminated soils will be treated using the soil shredding method described in Section 2 or transported to the nearest OCD-approved landfarm, R360 CRI (Permit No. NM-01-006) for disposal. INTERA staff will be on site to provide field operations oversight, document contaminated soil removal, and perform soil sample screening and confirmation sample collection to guide the excavation activities. INTERA field staff will log samples in accordance with Unified Soil Classification System (USCS), record pertinent observations such as soil staining or hydrocarbon odors, and conduct field screening to evaluate the presence of contamination. Excavation is planned to begin in the northeast corner of the delineated contaminated area and extend to the southwest in accordance with soil sampling results. Unlimited Construction II will follow manifesting procedures for any waste removed from the Site. Daily and weekly summary logs will be completed throughout the project to document field activities (**Appendix B**). Daily report forms will include estimated volumes of material excavated and treated, as well as quantities of samples collected. Weekly report forms will provide a general overview of field activities conducted during the week.

The objectives of the soil sampling to be completed at the Site are:

- Confirmation sampling of Site soils to provide evidence that soils designated to remain in place do not exceed contamination limits;

- Sampling of treatment piles to determine if the soil shredding and chemical treatment process was effective at reducing contamination to below the regulatory threshold;
- Sampling of overburden soils to determine materials impacted with contaminants of concern above regulatory standards are not reused as fill material on site; and,
- Sampling of stockpiles of waste soil to provide analytical data sufficient for waste characterization and disposal purposes.

Excavation activities will be conducted according to OSHA standards. The excavation is not anticipated to exceed 20 feet depth below ground surface and there is no intention to have workers enter the excavation during any of the remediation activities. If contamination in exceedance of the remediation criteria occurs at a depth of 20 feet, excavation in that location would be placed on hold for further evaluation, as excavations over 20 feet in depth must be designed in advance by a professional engineer registered in the state where the work will be performed. In the case that a worker must enter the excavation, steps, ladders, or ramps must be installed within 25 feet of the workers to ensure a safe entry and exit. Ladders must extend 3 feet above the surface of the excavation and should be tied off if necessary.

3.2.1 Field Screening Procedures

Samples will be 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. Background proxy readings will be collected from clean, undisturbed areas adjacent to the Site for a baseline condition comparison. Field screening data will be recorded on the relevant field forms (**Appendix B**).

3.2.1.1 Hydrocarbon Field Screening

A PID and heated headspace methods will be utilized to screen for the presence of volatile organic compounds (VOCs) in soil samples to guide excavation and the selection of samples to be further analyzed by the laboratory. Prior to conducting field screening, the PID will be calibrated daily using 100-parts per million (ppm) isobutylene gas. The PID is equipped with a 10.6-electron volt (eV) lamp in accordance with INTERA's soil field screening Standard Operating Procedure (SOP) (INTERA, 2020a). The following protocol will be utilized to detect VOCs with the headspace method:

- Fill a 16-ounce or larger clean glass jar half full of soil sample. Swiftly cover the top of jar with clean aluminum foil. Use a lid ring to effectively seal the sample jar.
- Place sample jar in an area away from direct sunlight where it can reach a temperature between 60 degrees Fahrenheit (°F) to 80°F. Allow hydrocarbon vapor concentrations to develop in the headspace of the sample jar for approximately 10 minutes and shake the jar vigorously for 1 minute during the initial and final stages of headspace development.
- After headspace development, carefully pierce foil with the sensor probe to the center of the headspace area. Observe the instrument readout and record the highest reading on a field screening form.

3.2.1.2 Chloride Field Screening

Field proxy screening for chloride will be conducted by mixing soil and DI water in jar at a 1:1 ratio (1 gram of soil to 1 milliliter [mL] of DI water) to measure specific conductivity readings using a YSI multi-meter. The jar will be 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.

Two additional chloride screening methods are recommended to help guide chloride contamination delineation including the HACH Chloride QuanTab® test strips and the Hach Chloride Test Kit. Screening results will be evaluated to see if a particular method shows a stronger correlation to laboratory results.

The QuanTab® test strips are used as described below:

- Add 90 mL of hot water (DI) to 10 g of finely ground sample in a 200-mL beaker.
- Stir vigorously for 30 seconds.
- Wait 1 minute, and stir again for 30 seconds.
- Place filter paper folded in a cone-shaped cup into the beaker and lower the QuanTab® test strip into the filtrate solution no further than 1.0 inches.
- After 30 seconds the moisture sensitive signal string at top of test strip turns dark, record reading.
- Convert reading to ppm chloride using the calibration chart located on the label.

The Hach Chloride Test Kit are used as described below:

- Mix a small amount of finely ground soil sample with DI water in the sample measuring tube.
- Pour the soil/water mixture into the mixing bottle.
- Add one chloride indicator powder packet.
- Turn the bottle left and right to mix.
- Add Silver Nitrate Titrant by individual drops.
- Shake vigorously with a cap on the bottle after each drop.
- The drops are counted until the solution color changes from yellow to reddish-brown.
- In the case that the precipitate is orange, but the solution color is yellow, start the test again with a new sample and shake the sample more.
- Multiply the total number of drops by 500 to get the result in milligrams per liter (mg/L).

3.2.2 Sampling Structure

Samples collected during field activities will be labeled with a unique identifier that corresponds to the type of sample, its location, and the sequence number. The following naming convention will be used for all confirmation and grab samples: Sequential Number_Sample Type/Wall or Floor_Depth. For example, sample name **011_CW_5.5** indicates that this was the eleventh sample collected and is a composite confirmation sample collected from the wall at a depth of 5.5 ft bgs. Sample information recorded on Field Forms A and C will be added to a running Sample Control Log that will be updated as additional samples are taken so that no number is used twice. Additional naming conventions for other

types of samples (i.e., treatment pile samples, overburden samples, etc.) are discussed in the subsections below.

Sample containers will be affixed with a label to avoid misidentification of samples. The label will include, at a minimum, the following information:

- Project name and number;
- Sample identification number;
- Initials of collector;
- Date and time of collection; and
- Sample type and preservative (if applicable).

Soil will be classified according to the USCS for each sample section of the excavation. Soil characteristics, along with any field observations, such as staining or odor, will be recorded on the appropriate sampling field form.

3.2.2.1 Laboratory Confirmation Samples

Once field screening results appear to be clean, the remediated areas must be lab tested for contamination with representative five-point composite samples from the walls and base of the excavation to confirm successful contaminant removal before backfilling with treated and/or clean material. Each composite sample shall represent an area of no more than 200 sq ft of a respective wall or base area. Individual grab samples will be collected from any wet or discolored areas on the sidewalls and base of the excavation for laboratory confirmation.

Confirmation samples will be named using the convention discussed above. Each sample will be properly labeled and stored in a cooler on ice. Samples will be transported under the chain of custody to HEAL in Albuquerque, New Mexico, utilizing HEAL's courier service in the Lovington area or via overnight shipping. Soil samples will be analyzed for the following:

- Chloride by EPA Method 300.0.
- BTEX 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.

Soil samples will be collected in 4-ounce jars for chloride analysis and in 40-mL vials for BTEX and TPH analysis. Samples will be properly labeled and stored in a cooler on ice. Samples will be transported under the chain of custody to the laboratory in Albuquerque either by utilizing HEAL's courier service in the Lovington area or via overnight shipping.

- The five-point composite soil samples collected from the treatment piles and within the excavation for BTEX and TPH will be collected between 3 inches and 6 inches from the surface to obtain samples below the surficial material where volatilization will have been the greatest. When collecting a sample from a treatment pile or within the excavation, the sampler will scrape off approximately 3 inches to 5 inches of material to reveal a freshly exposed surface to immediately collect plugs of sample using a syringe extraction and methanol preservation

method. When collecting confirmation samples from an excavator bucket, interior soil clods or clumps that did not come in contact with the bucket will be targeted and broken in half to collect a sample from the freshly revealed surface. This process will be repeated at five points within each 200-sq ft area of the excavation to gather representative composite samples.

- The five-point composite soil samples for chloride will be collected within the same vicinity of where the BTEX and TPH samples were obtained within each treatment pile and each 200-sq ft area of the excavation. When collecting a sample from a treatment pile or within the excavation, the five-point composite materials will be collected from between 3 inches to 6 inches in depth and combined in a bowl and mixed before transferring an aliquot to the 4-ounce sample jar for analysis. When collecting samples from an excavator bucket, the same methodology will be applied to soil collected from the interior of the bucket as described above.

Soil sample locations will be logged on sample field logs (Field Forms A and C, **Appendix B**) and/or georeferenced, as appropriate, on the digital site map in real-time using GPS units.

3.2.2.2 Treatment Pile Sampling

Contaminated soil that has undergone the initial soil shredding and chemical treatment application process will be stacked in piles and given at least 24 hours of treatment processing time. Treatment piles will be assigned identification numbers (i.e., TP01, TP02, TP03, etc.) and laid out on a letter-based grid system. Individual treatment pile locations will be logged on sample field forms (Field Form B, **Appendix B**) and on the digital site map with GPS coordinates. Treatment pile laboratory samples will consist of five-point composite samples and will be collected using the methods discussed above in Section 3.2.2.1. Treatment pile samples will be named using this convention: **TP01_X_MMDD** where TP01 is the sequential pile number, X is the letter location of the pile on the grid, and MMDD is the month and day that the sample was collected. Field Form B (**Appendix B**) will be used to record sample name and collection information, as well as the chemical treatment application date/time and duration prior to sampling.

3.2.2.3 Overburden and Borrow Area Sampling

Excavated soil from areas where previous samples did not indicate contamination concentrations in exceedance of regulatory standards may be stockpiled on-site for use as fill material in the completed excavation. Samples will be composites of soil taken from five separate areas of the overburden stockpile and will be labeled by sequential numbering with the prefix OBS (i.e., the first overburden stockpile sample will be **OBS_001_MMDD**, where MM is the month and DD is the day). The field book will be used to record and keep track of which excavation area(s) contributed to the stockpile. Overburden stockpile samples will be recorded in the field logbook and on Field Form C (**Appendix B**) as each sample is taken. The “Notes” column on Field Form C will also include information on which excavation area(s) contributed to the stockpile. Additionally, georeferenced locations and field photos of the overburden stockpiles will be recorded at the time of each overburden stockpile sampling. The digital site map will indicate the overburden stockpiles on site that day and the overburden stockpile sample locations and sample numbers.

The landowner has offered a source of clean fill and topsoil from an area within a half mile of the Site. This fill will need to be sampled to ensure that it meets regulatory standards for chloride concentrations

(less than 600 mg/kg as analyzed by EPA Method 300.0) prior to being used to backfill the Site. Samples will be composites of soil taken from five separate areas of every 250 CY of material and will be labeled by sequential number and sampling date with the prefix BAS (i.e., the first borrow area sample will be **BAS_001_MMDD**, where MM is the month and DD is the day). Once three consecutive samples come back clean, the sample frequency can be reduced to a five-point composite sample every 500 CY. Samples will be recorded both in the field logbook and on Field Form C (**Appendix B**).

3.2.2.4 Quality Assurance and Quality Control

The field quality assurance and quality control (QA/QC) program will be implemented through maintenance of acceptable field reporting and chain-of-custody procedures; proper use, calibration, and decontamination of field equipment; use of appropriate sample containers; and submission of blank and duplicate samples. Duplicate soil samples will be collected based on collecting one QA/QC sample per 20 field samples. These samples will be handled identically and analyzed for the same parameters as primary samples. Duplicate samples will be labeled and recorded with fictitious sample IDs and sample times with other information correct. The following naming convention will be using for duplicate samples: Sequential Primary Sample Number + 1_D/Wall or Floor_Depth. For example, if primary sample number 20 was collected and named 020_CW_5.5, then the duplicate sample would be named **021_DW_5.5**. The duplicate ID number and corresponding sample ID number will be noted in the field logbook, sample field form, and the digital sample control log.

3.3 Surface Reclamation Activities

Restoration, reclamation, and re-vegetation activities at the Site will be performed by Unlimited Construction II in accordance with 19.15.29.13 NMAC with oversight from INTERA. Treated material removed during excavation will be replaced to approximate original positions and will be contoured in a manner that ensures long-term stability, erosion control, and preservation of surface water flow patterns. Release-impacted surface areas shall be restored to the condition that existed prior to the release or their final land use, which the landowner intends to be cattle grazing.

3.3.1 Backfill and Grading

To confirm successful contaminant removal before backfilling with clean material, the remediated areas will be sampled with representative five-point composite samples from the walls and base of the excavation, and individual grab samples from any wet or discolored areas. The samples will be analyzed in the lab for the constituents listed in Table I of 19.15.29.12 NMAC. If the constituent concentrations of the composite and grab samples are less than or equal to the parameters in Table I of 19.15.29.12 NMAC, then any excavated areas may be backfilled.

The Site will be backfilled with treated material from stockpiles once analytical records of the stockpile composite samples pass the remediation standards. According to Subsection D, Paragraph 1 of 19.15.29.13 NMAC, the excavation reclamation must contain a minimum of four feet of non-waste containing, uncontaminated, earthen material. One (1) ft of topsoil will be spread as the uppermost layer of clean backfill material to re-introduce organic matter and soil microbes to help establish vegetation. Clean fill and topsoil borrow areas will be provided by the landowner in close proximity to

the Site. The topsoil will be lightly graded to reflect the surrounding natural topography, promote drainage, and prevent ponding.

3.3.2 Salvage and Debris Disposal

In general, the proposed surface reclamation activities for the Reed Estate #001 well pad and former tank battery area are as follows:

- Pick up, stockpile, and dispose of general trash and debris in a solid waste landfill. Recycle scrap metal.
  - An official naturally occurring radioactive material [NORM] survey may be required on materials, such as polyethylene flow lines which contained crude oil, prior to acceptance at most recycling facilities. A preliminary sitewide screening conducted by INTERA (2023) using a Ludlum 19 did not detect any radiation exposure of concern.
- Remove partially buried equipment and infrastructure including perimeter fencing, remnant foundations of former tanks, and associated plumbing.
- Break up caliche well pad foundation material and haul away for disposal or bury on location in the base of the excavation if the caliche is clean and additional fill is needed. Caliche impacted with contaminants or otherwise cannot be reused will need to be disposed of in an approved facility.
- Remove power poles, transformers, and power lines that are no longer needed. Other electrical debris to be removed include old pump control boxes, loose wiring, etc.
  - Power poles will be removed by licensed electricians.

3.3.3 Seeding

Upon completion of the excavation backfill and placement of a suitable soil cover over, all disturbed areas will be reseeded with an approved seed mixture to help restore native grasslands. Per the landowner's request, Kleingrass seed will be broadcast applied and placed ¼ to ½ inch into the topsoil. Kleingrass is drought hardy, tolerates moderate salinity and is adapted to the climatic conditions of the site (Glover et al., 1997; USDA NRCS, 2014). It is also an excellent forage for grazing cattle, which is the primary use of the land surrounding the site. However, Kleingrass can cause photosensitization—a disease associated with hypersensitivity to sunlight—in horses, sheep, and goats. It provides fair grazing and seed for wildlife. The United States Department of Agriculture Natural Resources Conservation Service (USDA NRCS) Plant Fact Sheet for Kleingrass (*Pancium coloratum* L.) is included in **Appendix C**.

Reclamation of all disturbed areas is considered complete when uniform vegetative cover has been established that reflects a life-form ratio of ± 50% of pre-disturbance levels and a total percent plant cover of at least 70% of pre-disturbance levels, excluding noxious weeds (Subsection D, Paragraph 3 of 19.15.29.13 NMAC). The ideal seeding time frame for planting Kleingrass is in late spring after the soil temperature reaches 60°F, and before the monsoonal rains that arrive in the summer; fertilization may be necessary for optimal growth. Disturbed areas should be reseeded in the first favorable growing season following closure. Kleingrass should be planted at 1.5 to 2 pounds of Pure Live Seed (PLS) per

acre and grazing should be deferred for at least twelve months to ensure the plants have enough time to become well established (USDA NRCS, 2014).

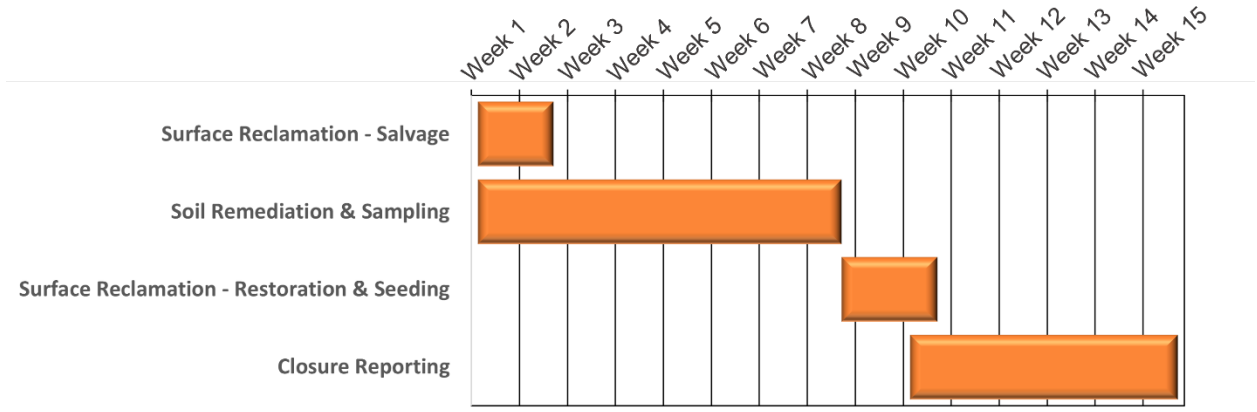
3.4 Task 4: Closure Reporting

Upon completion of all remediation activities and receipt of laboratory analytical results, INTERA will submit to OCD a closure report, along with form C-141 and all required attachments in accordance with Subsection E, Paragraph 1 of 19.15.29.12 NMAC. The report will contain a description of remedial activities conducted with excavation procedures and sampling diagrams, sampling methods, waste disposal documentation, field notes, a photolog, and analytical results.

4 Schedule

INTERA and Unlimited Construction II are prepared to begin fieldwork in September of 2023, following OCD approval of this Work Plan. The anticipated duration for soil remediation and surface reclamation is 10 weeks from initial mobilization. The process of closing the Site includes excavation and remediation or disposal of contaminated soil, field screening analysis, collection of composite and grab samples of the subgrade soil, lab results analysis of confirmation samples and treatment pile samples, backfill and compaction of the excavation area, regrading of the excavation area, and seeding of all disturbed areas. The chart below provides a summary of all anticipated remediation and reclamation activities for Site closure. The timeline provided is an estimate and is subject to change pending field conditions such as weather delays.

Table 1. Proposed Schedule for Field Activities and Closure Reporting



The proposed field schedule assumes the following:

- Task 1 - Project Management and Planning
  - Project management will continue through the duration of the project.
- Task 2 – Soil Remediation and Sampling
  - Up to 8 weeks of soil remediation fieldwork with one INTERA field staff present each week for excavation and sampling. On heavy sampling days an additional INTERA field support staff will be present for sample collection and coordination.
  - Assuming the maximum contamination and excavation depth is ≤ 20 ft below the surface.
  - This 8-week estimate does not include delays due to weather or supply chain issues.
- Task 3 - Surface Reclamation Activities
  - 2 weeks of additional surface reclamation (restoration and seeding) following soil remediation fieldwork.
  - If seeding timeframe is not favorable, re-seeding may be postponed till spring 2024.

- Task 4 - Closure Reporting (due w/in 90 days of remediation and reclamation)
  - Assuming approximately 4 weeks for data analysis and closure reporting.
  - Project end week includes an additional 2-week buffer to account for unforeseen delays.

5 References

Ash, Sidney R. 1963. Groundwater conditions in northern Lea County, New Mexico. U.S. Geological Survey Hydrologic Investigations Atlas HA-62.

Beal, S. A., Mossell, A. M., Affleck, R. T., Clausen, J. L., and Williams, N. D. 2020. Fenton's Reagent Treatability Study for Hydrocarbon-Contaminated Soils, McMurdo Station, Antarctica. Engineering for Polar Operations, Logisticshttps://apps.dtic.mil/sti/pdfs/AD1099730.pdf

Fenton, H. J. H. 1894. Oxidation of Tartaric Acid in Presence of Iron. Journal of the Chemical Society, 65: 899.

Glover, C. R., Foster, C. L., and Baker, R. D. 1997. Irrigated Pastures for New Mexico. New Mexico State University College of Agriculture and Home Economics, Cooperative Extension Service Circular 494. Revised for electronic distribution February 1997. https://irrigationtoolbox.com/ReferenceDocuments/Extension/New%20Mexico/circ494.pdf

INTERA Incorporated (INTERA). 2023. Site Assessment and Characterization – Delineation Report, Reed Estate #001 Orphan Wellsite, Lea County, New Mexico, prepared for New Mexico Energy, Minerals and Natural Resources Department - Oil Conservation Division. August 2023.

_____. 2020a. Standard Operating Procedure 23, Soil Field Screening. Revision 2015.2. January.

Kolthoff, I. M., and Medalia, A. I. 1949. The Reaction Between Ferrous Iron and Peroxides. II. Rection with Hydrogen Peroxide in the Presence of Oxygen. Journal of the American Chemical Society, 71: 3784.

New Mexico Office of the State Engineer (NMOSE). 2023. OSE Point of Diversions (POD) Dataset [Feature layer]. https://geospatialdata-ose.opendata.arcgis.com/datasets/OSE::ose-pods/about

United States Department of Agriculture, Natural Resources Conservation Service (USDA NRCS). 2014. Kleingrass (*Pancium coloratum* L.) Plant Fact Sheet. https://browningseed.com/wp-content/uploads/2020/09/Kleingrass.pdf

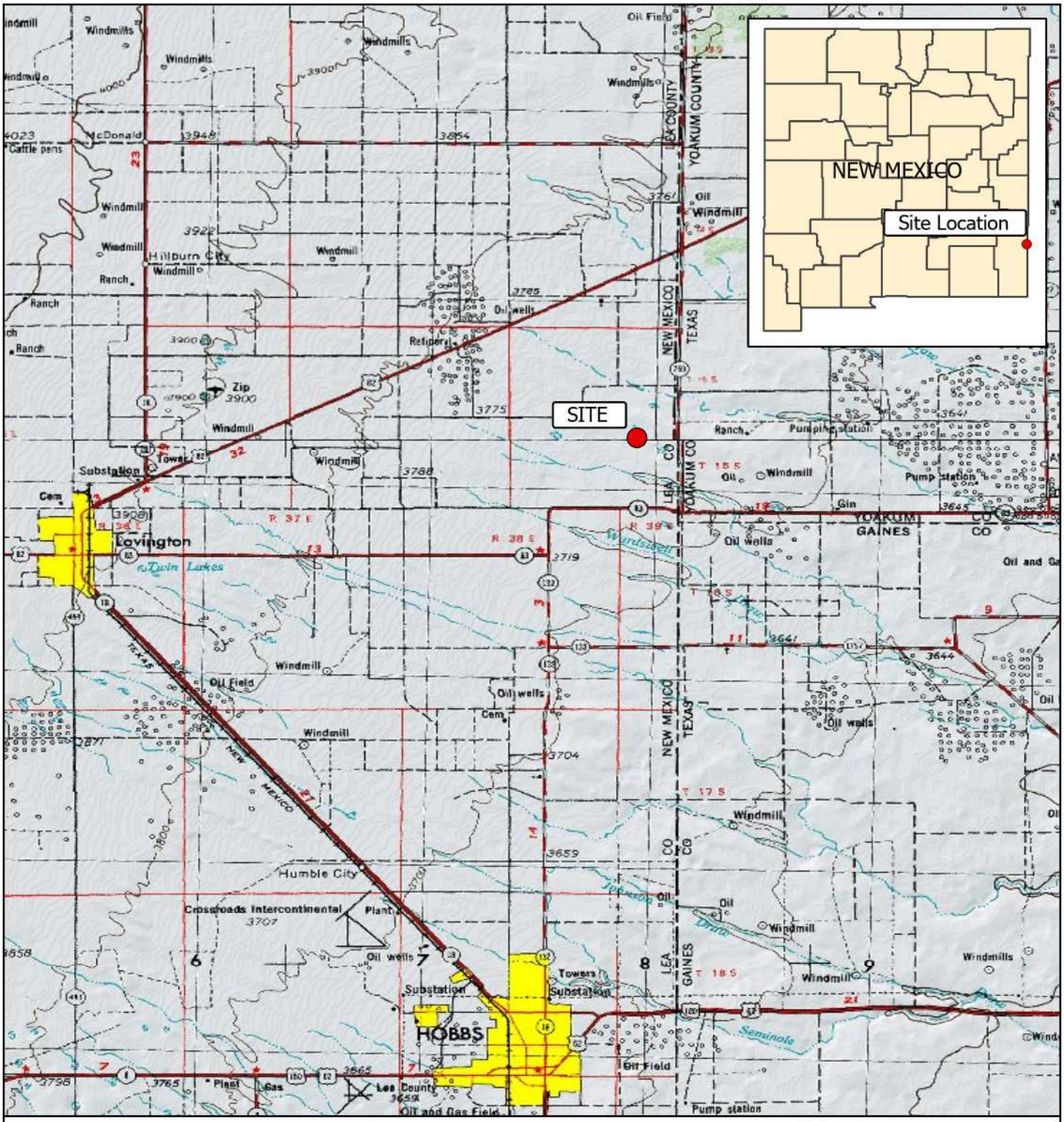
Walling, C. 1975. Fenton's Reagent Revisited. Accounts of Chemical Research, 8: 125.

Watts, R.J. 1992. Hydrogen peroxide for physicochemically degrading petroleum-contaminated soils. Remediation, 2: 413-425. https://doi.org/10.1002/rem.3440020407

Watts, R. J., Spencer, S. J., and Stanton, P. C. 1994. On Site Treatment of Contaminated Soils Using Hydrogen Peroxide (Report No. WA-RD 338.1), Final Report for Research Project T9234-06. Prepared for Washington State Transportation Commission, Department of Transportation. August.

Watts, R. J. and Stanton, P. C. 1994. Process Conditions for the Total Oxidation of Hydrocarbons (report No. WA-RD 337.1), Final Report for Research Project T9234-08. Prepared for Washington State Transportation Commission, Department of Transportation. July. https://www.wsdot.wa.gov/research/reports/fullreports/337.1.pdf

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
Remediation Work Plan

INTERA

FILE: S:\ABQ\NMGSD.M005.OCD\Reed_Estate\Graphics\MapDocs\OCD_Reed_Estate.aprx Layout: Figure 1 Date: 5/5/2023

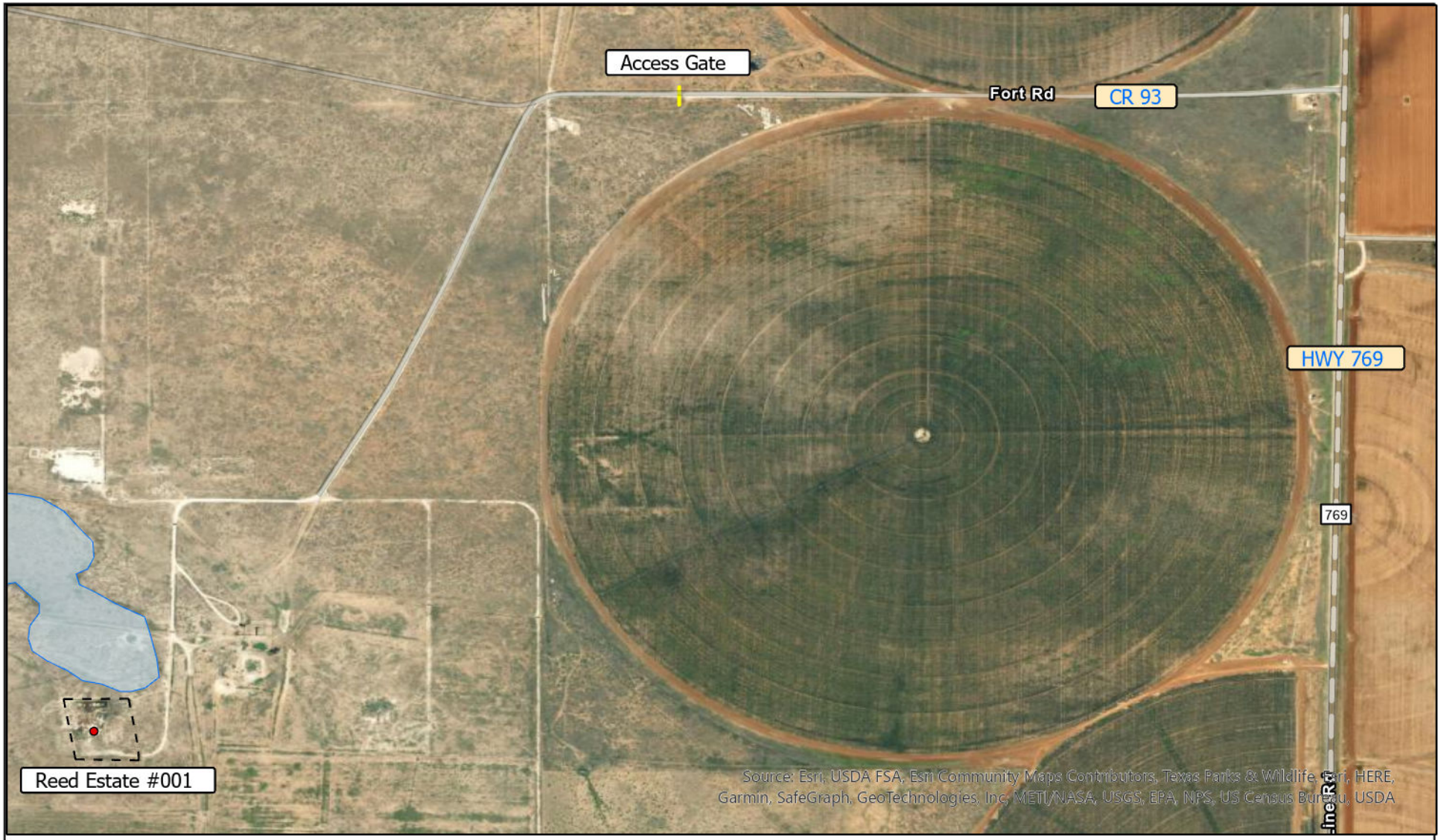
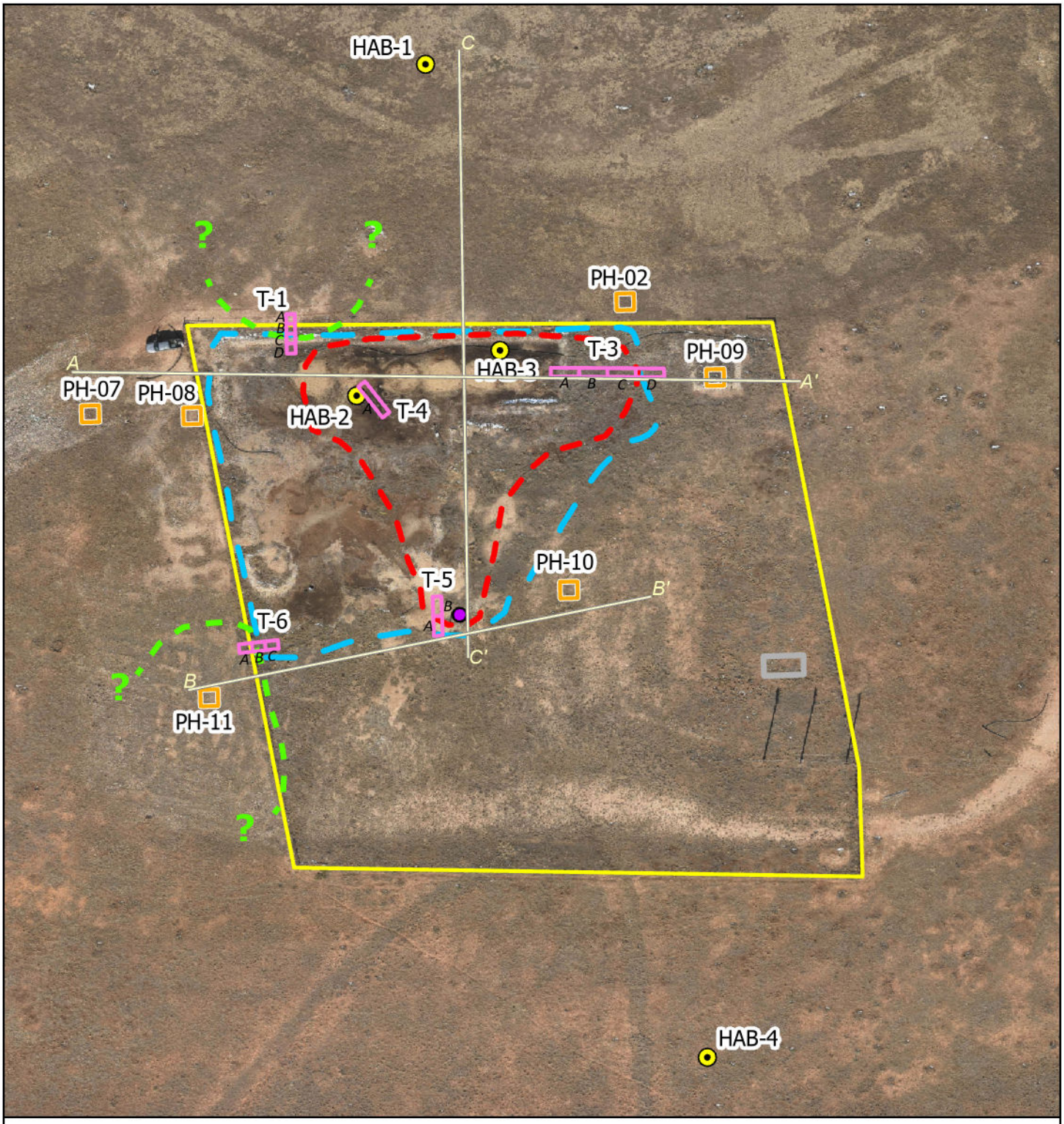


Figure 2
Site Access Map
Reed Estate #001 Orphan Wellsite
Lea County, NM
Remediation Work Plan

FILE: S:\ABQ\NMGSD.M005.OCD\Reed_Estate\Graphics\MapDocs\OCD_Reed_Estate.aprx Layout: Figure 2 Date: 8/21/2023



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

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

N

80 40 0 80

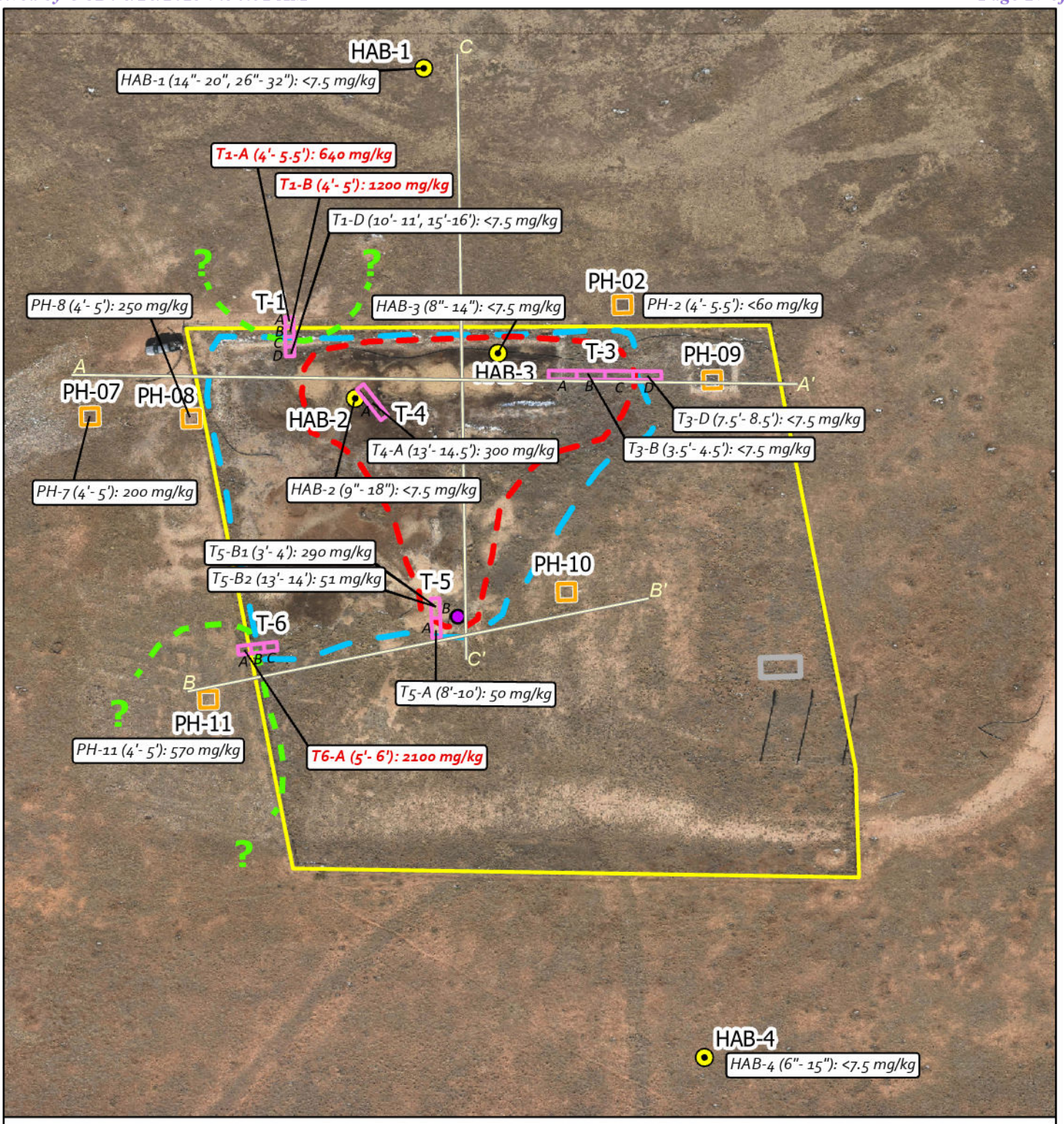
Feet

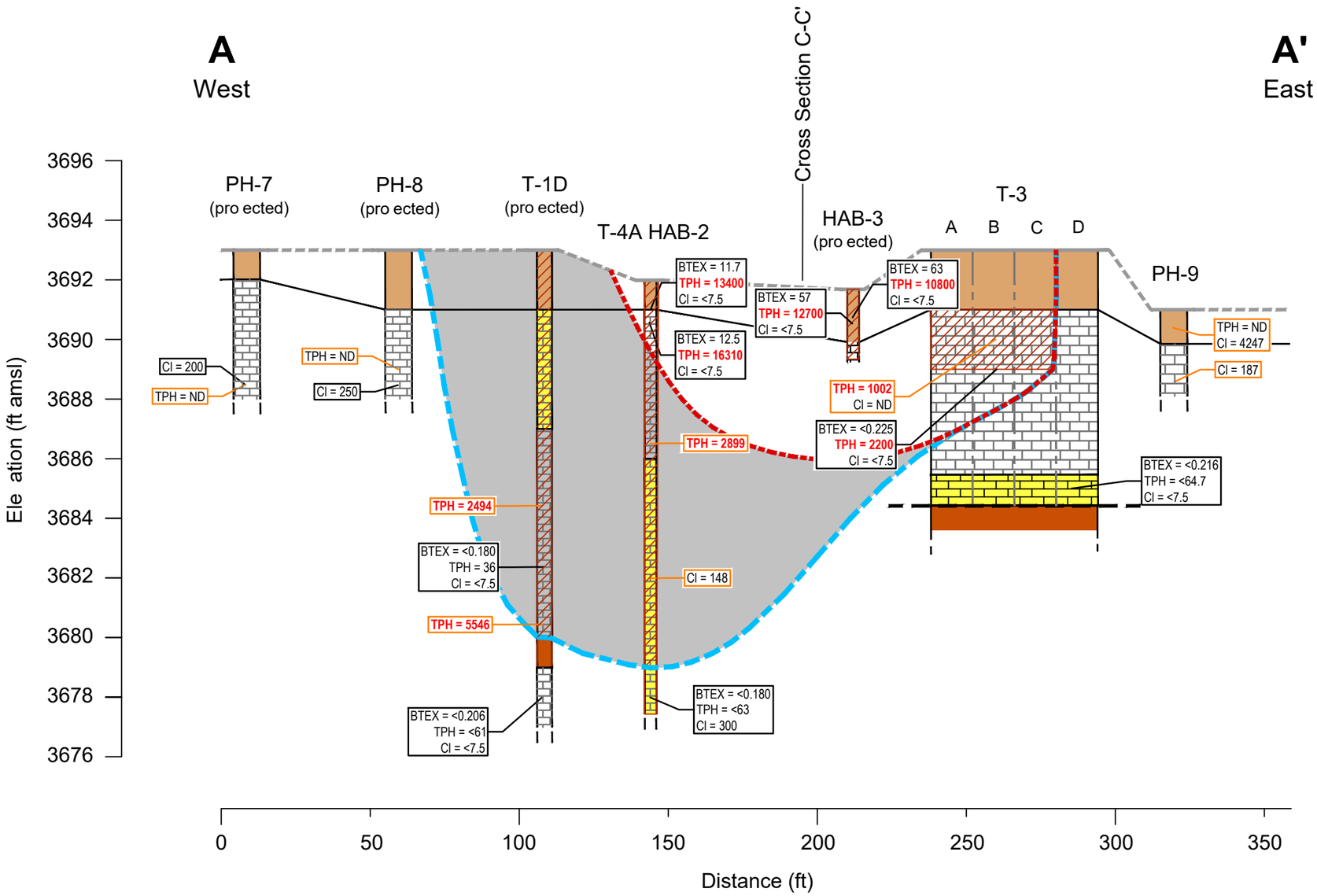
INTERA

Source(s): INTERA drone imagery (2023)

Figure 3
Soil Contamination Delineation
Reed Estate #001
Lea County, NM
Remediation Work Plan

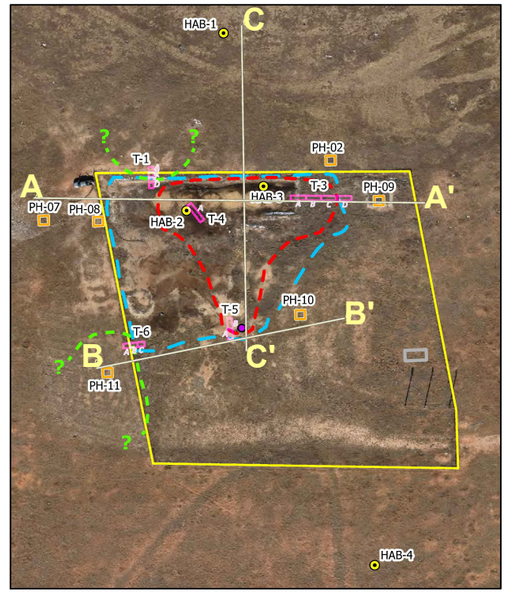
FILE: S:\ABQ\NMGSD.M005.OCD\Reed_Estate\Graphics\MapDocs\OCD_Reed_Estate_remediation.aprx Layout: Soil Contamination Date: 8/21/2023


HAB-1
HAB-1 (14"- 20", 26"- 32"): <7.5 mg/kg
T1-A (4'- 5.5'): 640 mg/kg
T1-B (4'- 5'): 1200 mg/kg
T1-D (10'- 11', 15'-16'): <7.5 mg/kg
PH-8 (4'- 5'): 250 mg/kg
T-1
HAB-3 (8"- 14"): <7.5 mg/kg
PH-02
PH-2 (4'- 5.5'): <60 mg/kg
HAB-3
T-3
PH-09
PH-07
PH-08
HAB-2
T-4
T3-D (7.5'- 8.5'): <7.5 mg/kg
T4-A (13'- 14.5'): 300 mg/kg
T3-B (3.5'- 4.5'): <7.5 mg/kg
PH-7 (4'- 5'): 200 mg/kg
HAB-2 (9"- 18"): <7.5 mg/kg
T5-B1 (3'- 4'): 290 mg/kg
T5-B2 (13'- 14'): 51 mg/kg
T-5
PH-10
T-6
T5-A (8'-10'): 50 mg/kg
PH-11
PH-11 (4'- 5'): 570 mg/kg
T6-A (5'- 6'): 2100 mg/kg
HAB-4
HAB-4 (6"- 15"): <7.5 mg/kg
Hand Auger Boring (HAB) and Sampling Locations
Well Monument Location
Test Pit (T) (not to scale)
Pothole (PH) (not to scale)
Debris Pile
Fence
Sample ID (Depth Range): Cl- results
Bold/Red/Italic indicates value in excess of release limit: 600 mg/kg
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
Note(s): *Remediation requirement in 19.15.29.12 NMAC where depth to groundwater is <50 ft
All samples were collected on March 14-16 2023.
N
80 40 0 80
Feet
INTERA
Source(s): INTERA drone imagery (2023)
Figure 4
Soil Chloride Contamination
Reed Estate #001, Lea County, NM
Remediation Work Plan
FILE: S:\ABQ\NMGSD.M005.OCD\Reed_Estate\Graphics\MapDocs\OCD_Reed_Estate_remediation.aprx Layout: Soil Cl contamination Date: 8/21/2023



Note(s):
Red/Bold indicates alues in excess of 19.15.29 NMAC Release Limits
(TPH 100 mg kg CI 600 mg kg BTEX 50 mg kg Ben ene 10mg kg).
Ft amsl: feet abo e mean sea le el.
ND: Non-detect
BTEX: ben ene ethylben ene toluene xylenes.
TPH: MRO DRO GRO

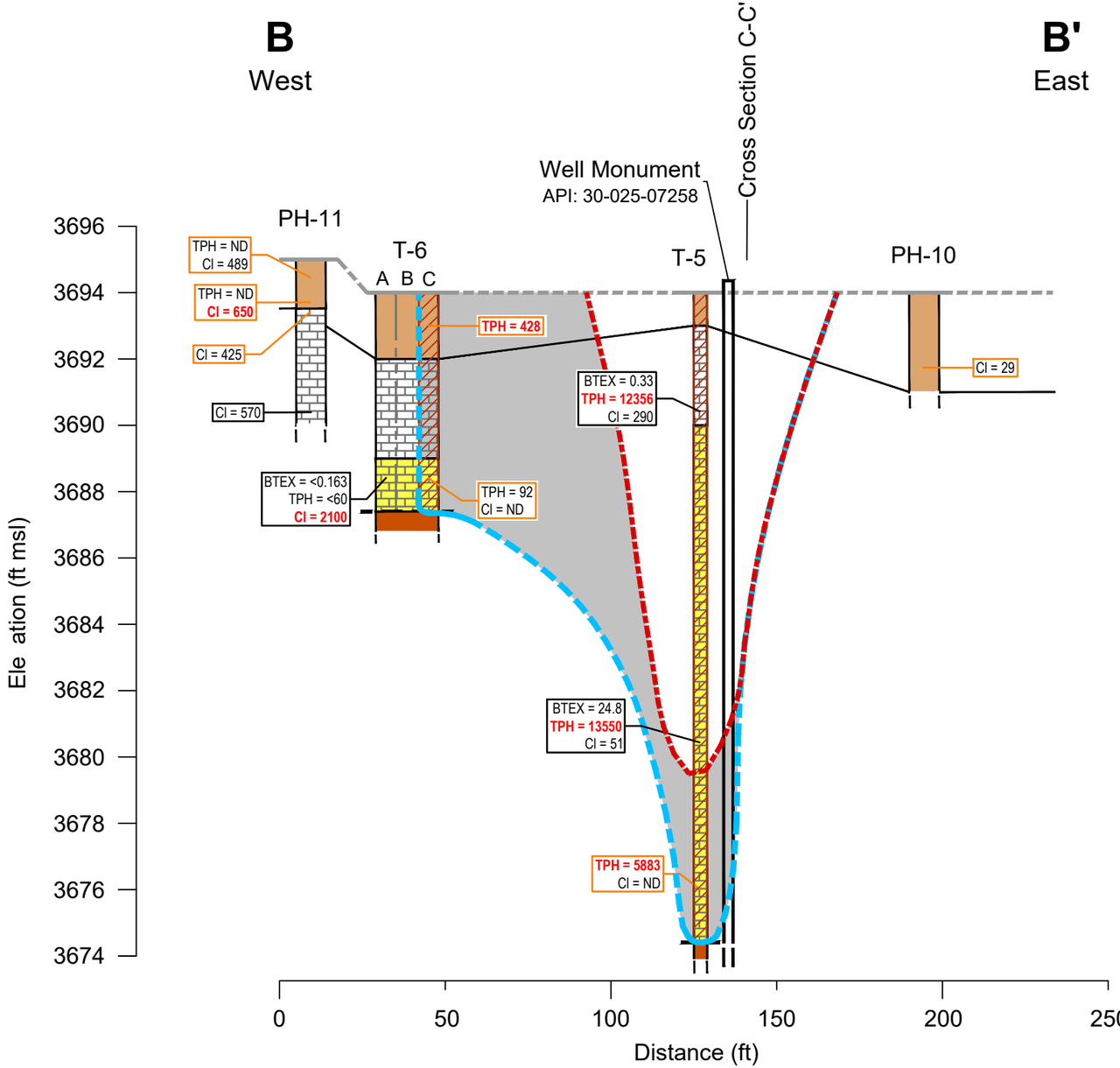
- Minimum hydrocarbon boundary based on lab results
- Maximum hydrocarbon boundary based on field obser ations and field proxy data



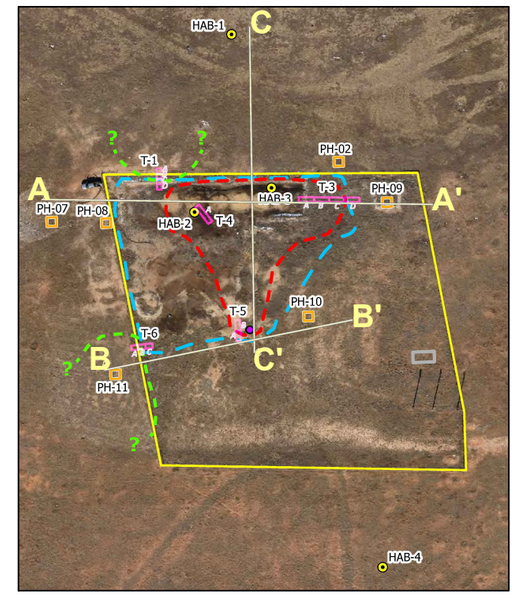
Cross Section Location Map

Figure 5a
A - A' Cross-section
Reed Estate #001 Orphan Wellsite Lea County, NM
Remediation Work Plan

S:\ABQ\NMGSD.M005.OCD\Reed_Estate\Graphics\Autocad\CrossSections.dwg



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



Cross Section Location Map

Note(s):
Red/Bold indicates alues in excess of 19.15.29 NMAC Release Limits (TPH 100 mg kg Cl 600 mg kg BTEX 50 mg kg Ben ene 10mg kg).
Ft amsl: feet abo e mean sea le el.
ND: Non-detect
BTEX: ben ene ethylben ene toluene xylenes.
TPH: MRO DRO GRO

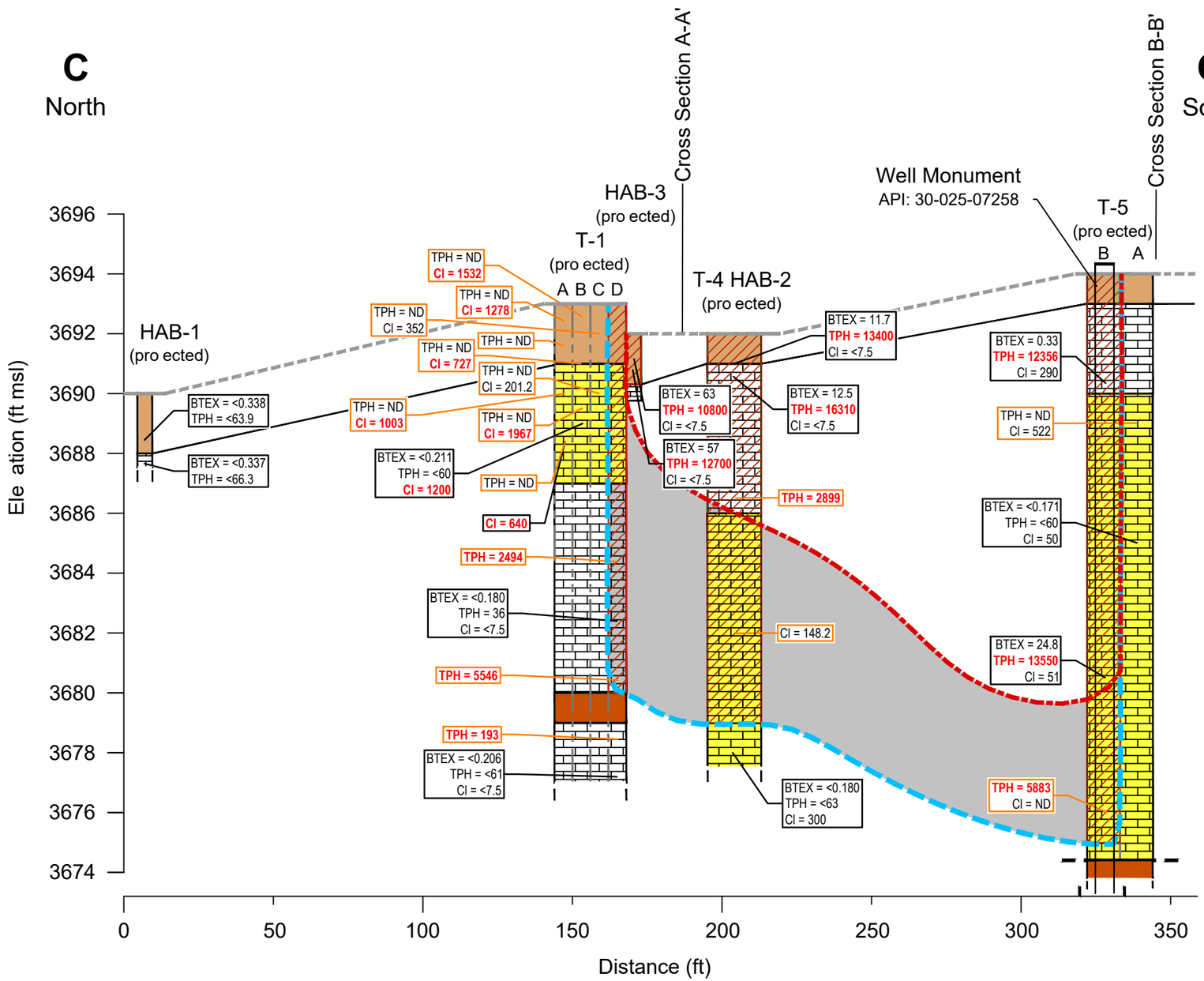
- Minimum hydrocarbon boundary based on lab results
- Maximum hydrocarbon boundary based on field obser ations and field proxy data

XX = XX — Lab Data (mg kg)
XX = XX — Field Proxy Data (mg kg)

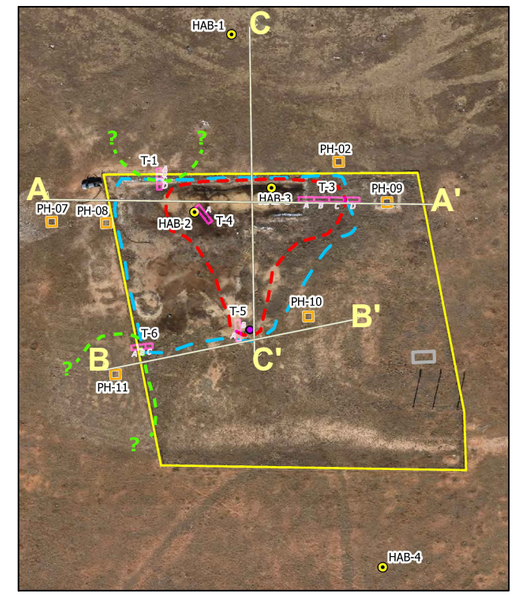
Figure 5b
B - B' Cross-section
Reed Estate #001 Orphan Wellsite Lea County, NM
Remediation Work Plan

INTERA

S:\ABQ\NMGSD.M005.OCD\Reed_Estate\Graphics\Autocad\CrossSections.dwg



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



Cross Section Location Map

Note(s):
Red/Bold indicates alues in excess of 19.15.29 NMAC Release Limits
(TPH 100 mg kg CI 600 mg kg BTEX 50 mg kg Ben ene 10mg kg).
Ft amsl: feet abo e mean sea le el.
ND: Non-detect
BTEX: ben ene ethylben ene toluene xylenes.
TPH: MRO DRO GRO

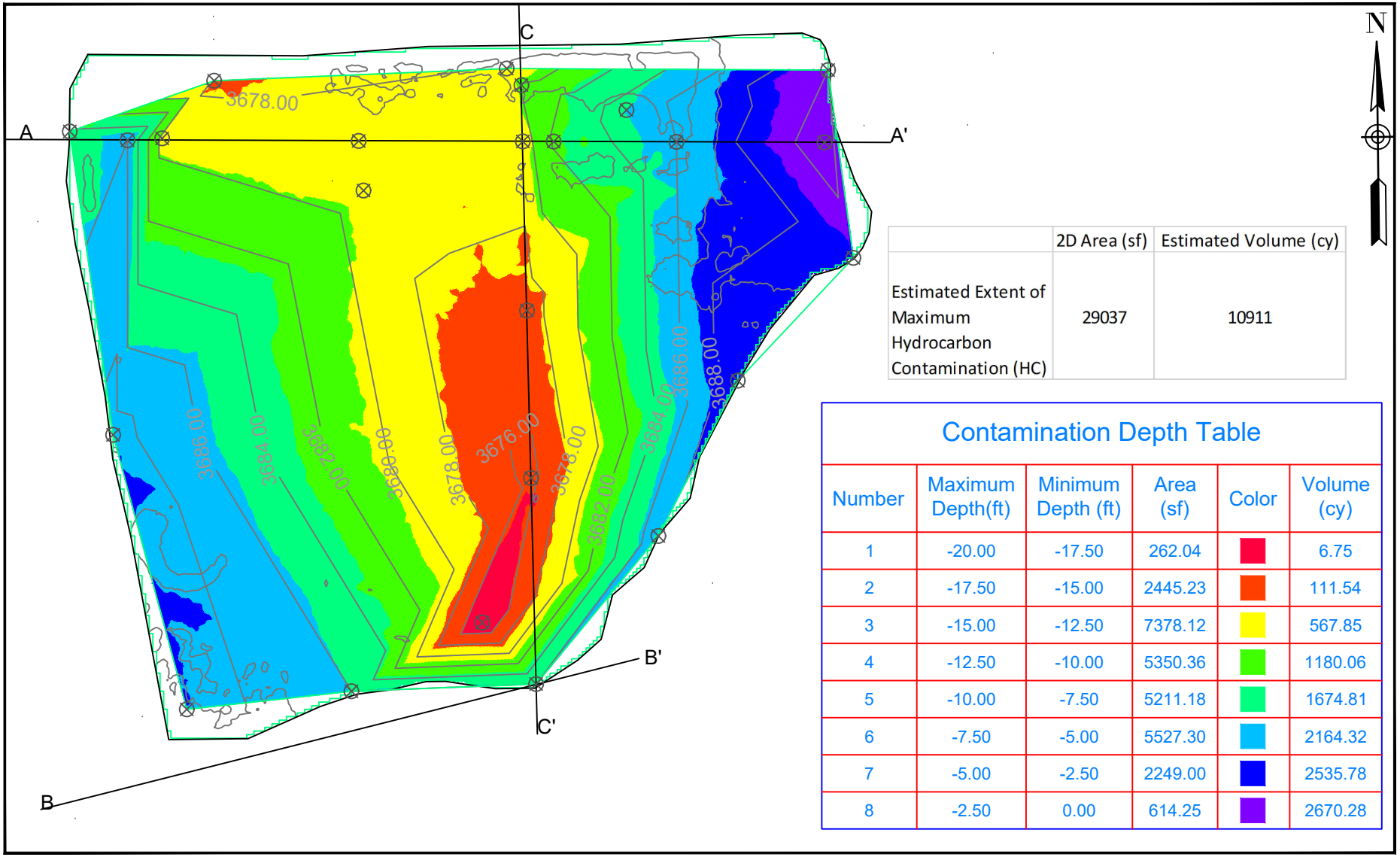
- Minimum hydrocarbon boundary based on lab results
- Maximum hydrocarbon boundary based on field obser ations and field proxy data

XX = XX — Lab Data (mg kg)
XX = XX — Field Proxy Data (mg kg)

Figure 5c
C - C' Cross-section
Reed Estate #001 Orphan Wellsite Lea County, NM
Remediation Work Plan

INTERA

S:\ABQ\NMGSD.M005.OCD\Reed_Estate\Graphics\Autocad\CrossSections.dwg



	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

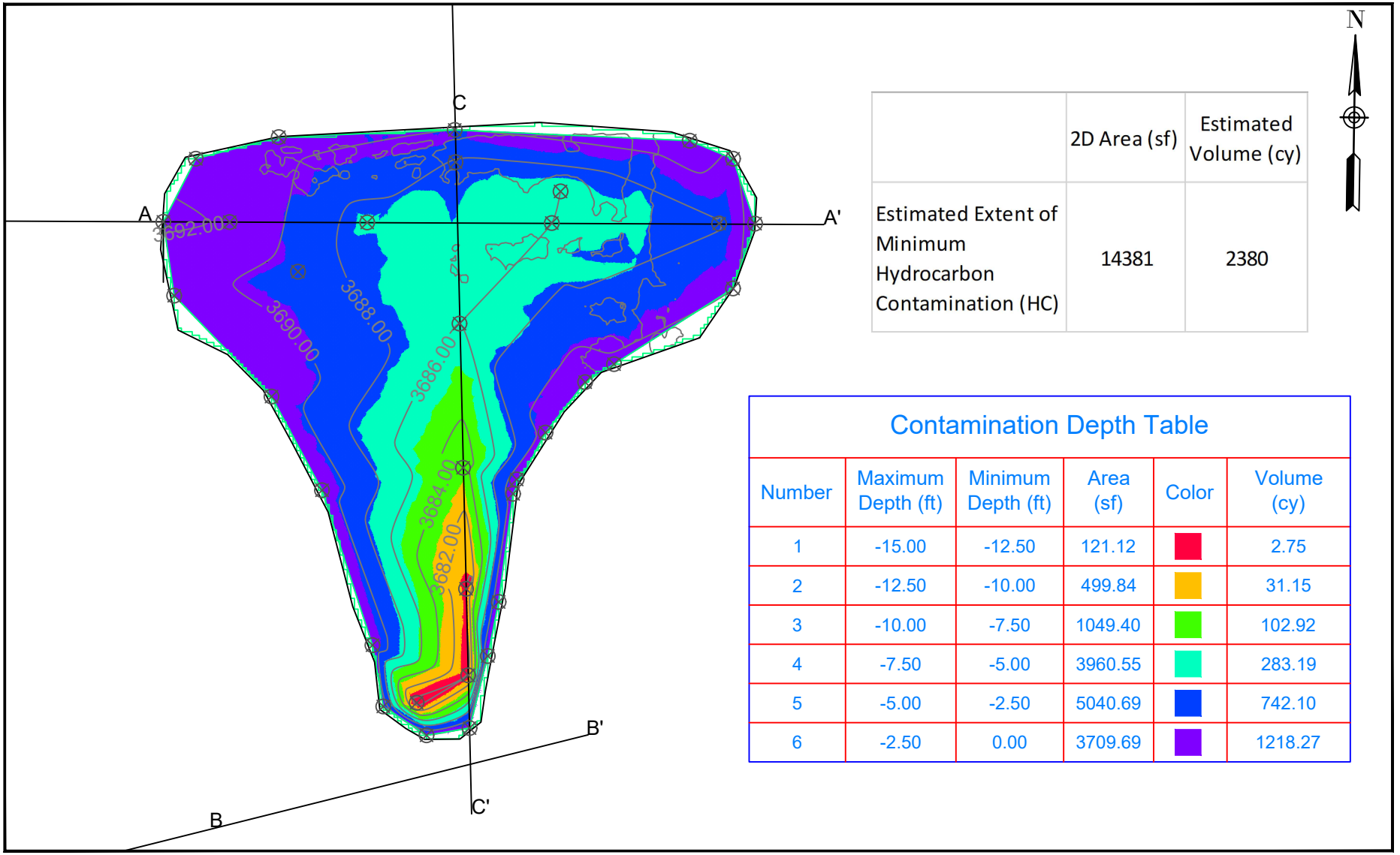
Legend

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

Figure 6a. Volume Estimate for Maximum Hydrocarbon Contamination Extent

Reed Estate #001
Lea County, NM
Remediation Work Plan

S:\ABQ\NMGSD.M005.OCD\Reed_Estate\Graphics\CAD\Contaminant_Vol_6_1_Max.dwg



	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

Figure 6b. Volume Estimate for Minimum Hydrocarbon Contamination Extent

Reed Estate #001 Orphan Wellsite
Lea County, NM
Remediation Work Plan

S:\ABQ\NMGSD.M005.OCD\Reed_Estate\Graphics\CAD\Contaminant_Vol_6_1_Min.dwg

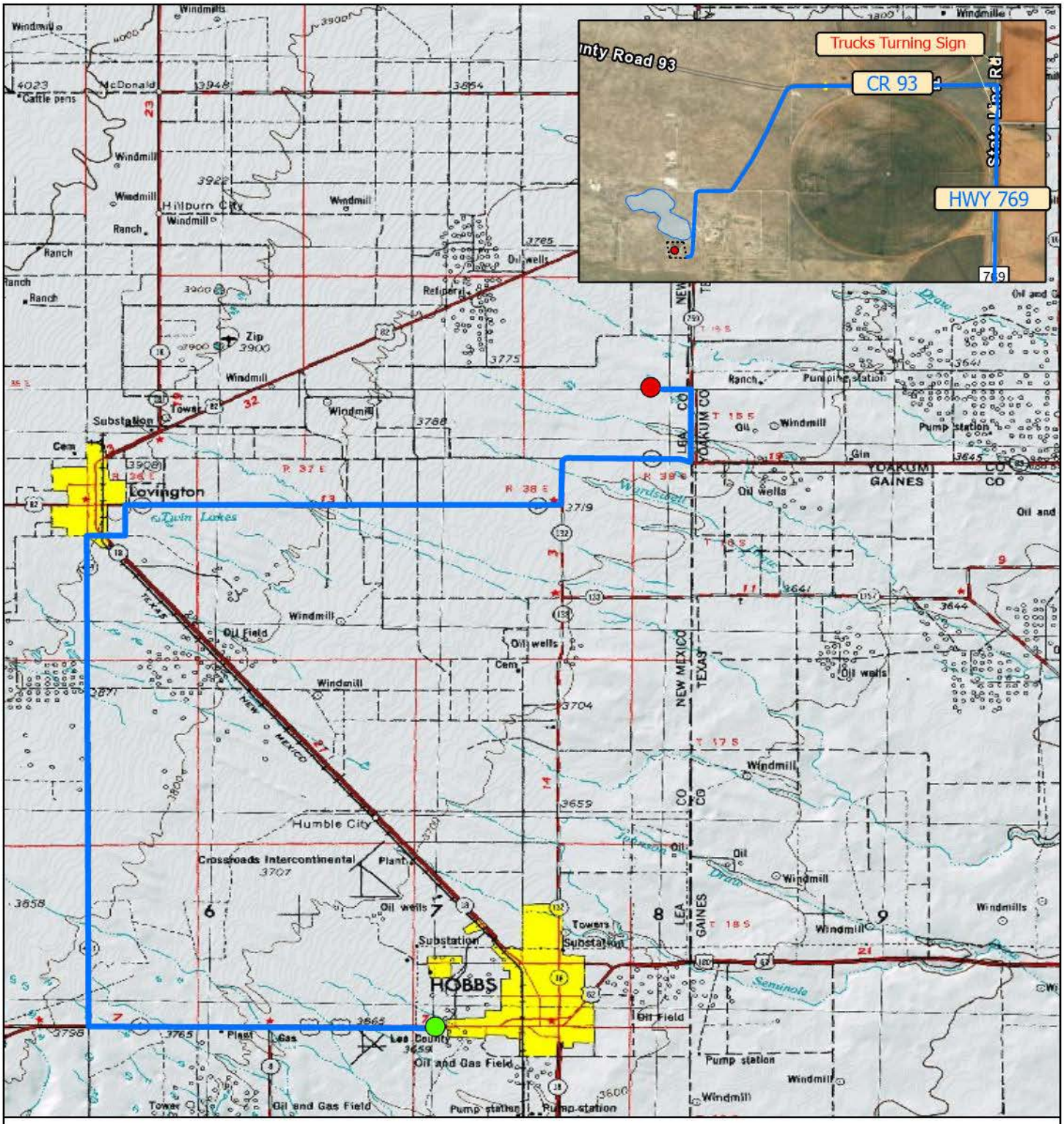


Figure 7
Waste Disposal Route
Reed Estate #001 Orphan Wellsite
Lea County, NM
Remediation Work Plan

INTERA

Source(s): USGS 7.5 Minute Topographic Maps:
Lovington Quadrangle, 1996; Contour Interval 10 Feet
Inset Map: 2020 NAIP Digital Ortho Photo Imagery

FILE: S:\ABQ\NMGSD.M005.OCD\Reed_Estate\Graphics\MapDocs\OCD_Reed_Estate.aprx Layout: Haul Route Map Date: 6/9/2023

Appendix A

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 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			

LR5807416

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	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		
RAD Screen <0.5 mR/hr:	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	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	12:30		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.NM05.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)

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. 2301A94	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)
1/27/23	0915	SOIL	HAB1 - 14"-20"	3) 4 oz Jars a) 40 mL	NA MeOH	001	X	X					X				X	X	X
	0915		HAB2 - 26"-32"			002	X	X					X				X	X	X
	1020		HAB3 - 9"-15"			003	X	X					X				X	X	X
	1040		HAB4 - 15"-18"			004	X	X					X				X	X	X
	1140		HAB5 - 8"-13"			005	X	X					X				X	X	X
	1250		HAB6 - 13"-14"			006	X	X					X				X	X	X
	1345		HAB7 - 6"-12"			007	X	X					X				X	X	X
	1355		HAB8 - 12"-15"			008	X	X					X				X	X	X

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

Remarks: Quote: 2711

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

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. [illegible] 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
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
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.		

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

Hall Environmental Analysis Laboratory, Inc.

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	Received date/time
	03/14/23 11:44	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	Received date/time
	03/14/23 13:22	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	Received date/time
	03/14/23 15:20	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	Received date/time
	03/14/23 16:37	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	Received date/time
	03/15/23 10:45	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

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

Collected by	Collected date/time	Received date/time
	03/15/23 14:05	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

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

Collected by	Collected date/time	Received date/time
	03/15/23 14:32	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	Received date/time
	03/15/23 15:53	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				

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

4591607

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:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Pace Analytical	Report To:	Pace Analytical Subout Team	Attention:	Andy Freeman
Address:	12065 Lebanon Rd.	Copy To:		Company Name:	
Mt. Juliet, TN 37122				Address:	
Email:	MTJLSuboutTeam@pacelabs.com	Purchase Order #:	L1596677	Pace Quote:	
Phone:	(615) 773-9756 Fax (615) 758-5859	Project Name:		Pace Project Manager:	John Jacobs
Requested Due Date:	4-Apr	Project #:		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): 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.
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: **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: JGL 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: JGL 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')~~	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

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
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
3.16.23	1400	Soil	PH-8(4'-5')	2 jars	None	-001
3.16.23	1430	Soil	PH-2(4'-5.5')	2 jars	None	-002
3.16.23	1048	Soil	PH-11(4.5'-5')	2 jars	None	-003

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)
						X			
						X			
						X			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
04/27/23	1600	Pedro Gutierrez		CDD	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 B

Field Form Templates

INTERA GEOSCIENCE & ENGINEERING SOLUTIONS

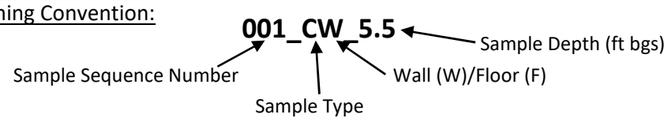
Project: _____ Date(s): _____

Field Staff: _____ Area of Site: _____

DRAFT Field Form A - Excavation & Confirmation Samples
Site Remediation Sampling

SAMPLE TYPE	SAMPLE NAME / ID	DATE	TIME	LOCATION IN EXCAVATION	DEPTH INTERVAL (ft bgs)	SOIL DESCRIPTION & OBSERVATIONS (STAINING, ODOR, ETC.)	Field Readings			LAB (Y/N)	DUPE #	NOTES
							PID ppm	SPC uS/cm	Cl [units]			

Sample Naming Convention:



***Collect a duplicate every 20 samples**

Definitions:

Grab Sampling- grab samples collected at targeted depths/locations that aid and guide excavation activities

Confirmation Sampling- sampling completed to verify concentrations meet site cleanup goals (5 point composite; 200 sq ft, unless variance approved)

Overburden Sampling- sampling of "clean" material that was excavated and can likely be replaced in excavation without treatment

Treatment Pile Sampling- composite (5 point) sample from treatment piles after treatment round is completed **use Field Form B*

Borrow Area Sampling- sampling of borrow area that will be used as fill

Excavation Area & Sample Location Diagram

△Wall ⊕Floor

Scale: ☐ = _____ feet

Column Heading Descriptions:

Sample Type: C = Confirmation; G = Grab; O = Overburden; D = Duplicate**;** B = Borrow

Sample Name/ID: Name of Sample collected *use Sample Naming Convention Above

Date: Date Sample Collected (MM/DD/YY)

Time: Time Sample Collected (Ex: 0900 or 1330)

Location in Excavation: Wall (W) vs Floor (F), Direction (N, S, E, W, or combination)

Depth Interval: Depth below ground surface where sample was collected (Ex: 1.5' - 4.5')

Soil Description & Observations: describe soil type, color, etc; note visible staining, odors

Field Readings: PID = heated headspace sample reading;
SPC = specific conductivity reading;
Cl = chloride reading using colorimeter

Lab (Y/N): Y = Sample sent to lab for analysis;
N = Sample not sent to lab (recorded for field readings/visual observations)

DUPE #: Column used to keep track of where we are in the duplicate sample cycle
(Ex: [Dupe ID]-# where # is the number 1 through 20)

Notes: Additional notes/comments for the sample (Ex: collected using trackhoe bucket)

DRAFT Field Form B - Treatment Pile Sampling

INTERA GEOSCIENCE & ENGINEERING SOLUTIONS

Project Name/No.: _____ **Date(s):** _____

Field Staff: _____

SAMPLE			TREATMENT PILE			CHEMICAL TREATMENT		LOGGED ON TABLET? *Initials*	Pass / Fail?	NOTES
Name / ID	Date Collected	Time Collected	No. / ID	Location/ Coordinates	Approx. Size (cubic yards)	Date & Time Applied	Duration (hours)			

*All samples collected from treatment piles should be **5-point composite samples after ≥24 hours of treatment is completed**

Sample Naming Convention:

TP01_X_0715

Treatment Pile Number | Grid Location Letter | Sample Date (MMDD)

Additional Remarks:

Column Heading Descriptions:

SAMPLE
- **Name/ID:** Name of sample collected **use Sample Naming Convention*
- **Date:** Date Sample Collected (MM/DD/YY)
- **Time:** Time Sample Collected (Ex: 0900 or 1330)

TREATMENT PILE
- **No./ID:** Number/ID of treatment pile (Ex: TP01)
- **Location/Coordinates:** Location on grid or lat/long
- **Approx. Size:** Estimated volume of treatment pile in cubic yards

CHEMICAL TREATMENT
- **Date & Time Applied:** When chemical treatment was applied to pile
- **Duration:** Amount of time between treatment application & sampling

Logged on tablet?: Write initals after entering treatment pile location/info in tablet

Pass/Fail?: Did the sample lab analysis pass (P) or fail (F) cleanup standards?

Notes: Additional info about sample and/or treatment process, as necessary (Ex: variations in treatment type, visual observations)

DRAFT Field Form C - Additional Remediation Sampling

INTERA GEOSCIENCE & ENGINEERING SOLUTIONS

Project Name/No.: _____ **Date(s):** _____

Field Staff: _____

SAMPLE TYPE	SAMPLE NAME / ID	DATE	TIME	LOCATION COORDINATES		DEPTH INTERVAL (ft bgs)	SOIL DESCRIPTION & OBSERVATIONS (STAINING, ODOR, ETC.)	FIELD READINGS			LAB (Y/N)	DUPE #	NOTES
				Lat/Long	Logged in Tablet?			PID ppm	SPC uS/cm	Cl [units]			

Sample Type: C = Confirmation; G = Grab; O = Overburden; D = Duplicate; B = Borrow

**Collect duplicate sample every 20 primary sampl*

Sample Naming Convention (Grab): **001_X_2.5** (Sample Depth; Sample Sequence Number; Sample Type)

Definitions:

Grab Sampling- grab samples collected at targeted depths/locations that aid and guide excavation activities

Confirmation Sampling- completed to verify concentrations meet site cleanup goals (5 point composite; 200 sq ft, unless variance approved)

Treatment Pile Sampling- composite (5 point) sample from treatment piles after treatment round is completed **use Field Form B*

Overburden Sampling- sampling of "clean" material that was excavated and can likely be replaced in excavation without treatment

Borrow Area Sampling- sampling of borrow area that will be used as fill

Sample Naming Convention (OBS & BAS):

OBS_001_MMDD

BAS_001_MMDD

Column heading descriptions on back of form

Column Heading Descriptions:

Sample Type: C = Confirmation; G = Grab; O = Overburden; D = Duplicate**;** B = Borrow

Sample Name/ID: Name of Sample collected *use Sample Naming Convention

Date: Date sample collected (MM/DD/YY)

Time: Time sample collected (Ex: 0900 or 1330)

Location Coordinates:

Lat/Long: Record latitude and longitude values of sample location

Logged in Tablet?: Initial once sample location is recorded on tablet

Depth Interval: Depth below ground surface where sample was collected from, in decimal feet (Ex: 1.5' - 4.5')

Soil Description & Observations: describe the soil type, color, etc., and note any visible staining, odors

Field Readings: PID = heated headspace sample reading; SC = specific conductivity reading; Cl = chloride reading using colorimeter

Lab (Y/N): Y = Sample sent to lab for analysis; N = Sample not sent to lab (usually recorded for field readings/visual observations)

DUPE #: Column used to keep track of where we are in the duplicate sample cycle (Ex: [Dupe ID]-# where # is the number 1 through 20)

Notes: Any additional notes/comments that should be known for the sample (Ex: collected using trackhoe bucket)

Column heading descriptions on back of form

INTERA GEOSCIENCE & ENGINEERING SOLUTIONS

DRAFT Field Form - Daily Report
Site Remediation

DATE: _____ **PROJECT NAME/NO.:** _____

FIELD PERSONNEL

INTERA PERSONNEL: _____

_____

OTHER CONTRACTOR(S): _____

_____

ADDITIONAL PERSONNEL: _____

ACTIVITY SUMMARY

_____

_____

_____

_____

_____

_____

_____

SAMPLES COLLECTED	
TYPE	**NUMBER**
Excavation	
Treatment Pile	
Overburden	
Confirmation	
Duplicates	
TOTAL:	

PRIMARY WORK AREA OF SITE: _____

VOLUME OF MATERIAL EXCAVATED: _____

NUMBER OF TREATMENT PILES (AT END OF DAY): _____

VOLUME OF MATERIAL TREATED: _____

Note: *All volumes are estimates.*

NUMBER OF SAMPLES SENT TO LAB: _____

SAMPLE DUPLICATE NO. (AT END OF DAY): _____

FIELD FORMS/TABLET DATA COMPLETED DURING DAY				
Tailgate Safety Meeting Form	**Field Form A: Excavation Sampling**	**Field Form B: Treatment Pile Sampling**	**Field Form C: Additional Sampling**	**Tablet Data**

ADDITIONAL NOTES/COMMENTS: _____

_____

_____

FORM COMPLETED BY: _____ **SIGNATURE:** _____

INTERA GEOSCIENCE & ENGINEERING SOLUTIONS

DRAFT Field Form – Weekly Report
Site Remediation

WEEK OF: _____ **PROJECT NAME/NO.:** _____

FIELD PERSONNEL

FIELD TEAM LEAD(S): _____

INTERA PERSONNEL: _____

OTHER CONTRACTOR(S): _____

OVERVIEW OF WEEK

MAIN ITEMS OF NOTE: _____

_____

_____

ADDITIONAL ACTIVITIES (BRIEF RECAP): _____

_____

_____

TIPS & TRICKS / LESSONS LEARNED: _____

_____

_____

SAFETY SHARE(S): _____

_____

_____

FOR NEXT WEEK

ENDED ON SAMPLE DUPLICATE NO.: _____ NO. OF SAMPLES UNTIL NEXT DUPE: _____

WHERE TO START (SITE LOCATION/ACTIVITIES): _____

_____

_____

FORM COMPLETED BY: _____ **SIGNATURE:** _____

Appendix C

Kleingrass Seeding Fact Sheet

USDA NRCS
United States Department of Agriculture
Natural Resources Conservation Service

Plant Fact Sheet

KLEINGRASS
Panicum coloratum L.
Plant Symbol = PACO2

Contributed by: USDA–NRCS James E. "Bud" Smith Plant Materials Center, Knox City, Texas

Photo Courtesy: USDA-NRCS James E. "Bud" Smith Plant Materials Center.

Alternate Names: N/A

Uses
Livestock: Kleingrass can provide abundant quantities of good quality forage for cattle. However, horses, sheep and goats have been known to develop severe photosensitization and liver damage. Green grass growth following moisture or grazing is reported to be relatively more toxic than old or dormant growth.

Wildlife: Kleingrass a bunch-type plant has value for nesting and loafing cover for wild birds and the small slick seed is readily eaten by quail. Whitetail deer graze young plant growth.

Status
Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status (e.g. threatened or endangered species, state noxious status, and wetland indicator values).

Description and Adaptation:
Grass Family (*Poaceae*). Kleingrass is a warm-season perennial bunchgrass introduced from Africa. Introductions were made as early as 1942, but it was not until the 1950's that desirable types were introduced and evaluated. It is fine-stemmed and leafy at maturity which culms are erect, 50-120 centimeters (20-47 inches) tall, from a knotty base. Leave sheaths glabrous or with papillose based hairs and blades 2.5 millimeters (1/16 to 3/16 inches) wide, with scattered papillose based hairs on margins. Panicle is 7 to 20 centimeters (2 ¾ to 8 inches) long, spikelets on short pedicels. Spikelets are glabrous, 2.6 to 3.1 millimeters (about 1/8 inch) long with 2 florets which lower floret staminate, with long palea and upper floret fertile, glabrous, shiny, and hard, with acute apex. It is the same genus as switchgrass and blue panicum and bears a slight grass appearance. Kleingrass is quite variable in its makeup, sometimes prostrate but mostly erect. Kleingrass spreads by tillers or short rhizomes, and will root at the nodes when the stems contact with wet soils.

Kleingrass is adapted to a wide range of heavy soils and dry conditions in central Texas and on wet soils in the Gulf coast. In the Rio Grande Plains it does well on shallow sites, deep sandy soils and medium textured soils. Kleingrass grows in the southern United States (Texas, New Mexico, Arizona, California, Louisiana, Mississippi, Alabama, Georgia, Florida and South Carolina) as well as Mexico. The plant is moderate salinity tolerant. It produces good forage production with 46 to 76 centimeters (18 to 30 inches) rainfall or under irrigation, but is a poor cold tolerant plant. Cures for good winter forage in drier regions.

Establishment
Kleingrass seeds drilled ¼ to ½ inch deep on fine soils and up to 1 inch deep on coarser or prepacked sandy soils. Plant seeds at 2 pounds of Pure Live Seed (PLS) per acre in spring after the soil temperature reaches 60 degrees or early fall in coastal areas. Seedlings growing in a clean, firm and well-prepared ground are sturdy and have good development, but grow slow initially. Grazing should be restricted until new plants are well established. The seed is small and smooth, with approximately 500,000 seed per pound.

Management
Kleingrass is used for hay, pasture and silage. Fertilization is necessary for optimum growth and quality. Although kleingrass may not respond to high rates of fertilizer, essentially all soils, especially in the higher rainfall areas, will need fertilization to

maintain production. A soil test is the best way to determine fertilization needs for establishment and production.

Pests and Potential Problems
There are no known serious pests of kleingrass.

Environmental Concerns
Other than noted potential toxicity to sheep, goats, and horses, no other known concerns.

Cultivars, Improved, and Selected Materials (and area of origin)
Kleingrass is native to Africa and was introduced in the United States as a forage plant for livestock.

'Selection 75'was released cooperatively by the James E. "Bud" Smith Plant Materials Center and Texas Agriculture Experiment Station in 1969. Selected for forage production, the intended use of 'Selection 75' was for pastureland, range seeding, hay production, wildlife food and cover.

'TEM-LD1' was released in 1991 by USDA ARS and Texas Agriculture Experiment Station. 'TEM-LD1' was selected for rapid germination from the 'Selection 75' plant release.

'TEM-SR1' was released in 1992 by USDA ARS. 'TEM-SR1' was selected for seed shatter resistance.

'Verde' was released from Texas Agriculture Experiment Station and the James E. "Bud" Smith Plant Materials Center in 1982. 'Verde' was selected for increase seed size.

'OKPC-1'was released by the Oklahoma Agriculture Experiment Station in 1982. 'OKPC-1' was selected for increased cold tolerance.

Prepared By and Species Coordinator:
Rudy G. Esquivel
USDA-NRCS
James E. "Bud" Smith Plant Materials Center
3776 FM 1292
Knox City, Texas 79529

Edited:

For more information about this and other plants, please contact your local NRCS field office or Conservation District, and visit the PLANTS Web site<http://plants.usda.gov> or the Plant Materials Program Web site <http://Plant-Materials.nrcs.usda.gov>

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 258099

CONDITIONS

Operator: HAL J RASMUSSEN OPER INC PO Box 10851 Midland, TX 79702	OGRID: 9809
	Action Number: 258099
	Action Type: [IM-SD] Incident File Support Doc (ENV) (IM-BNF)

CONDITIONS

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